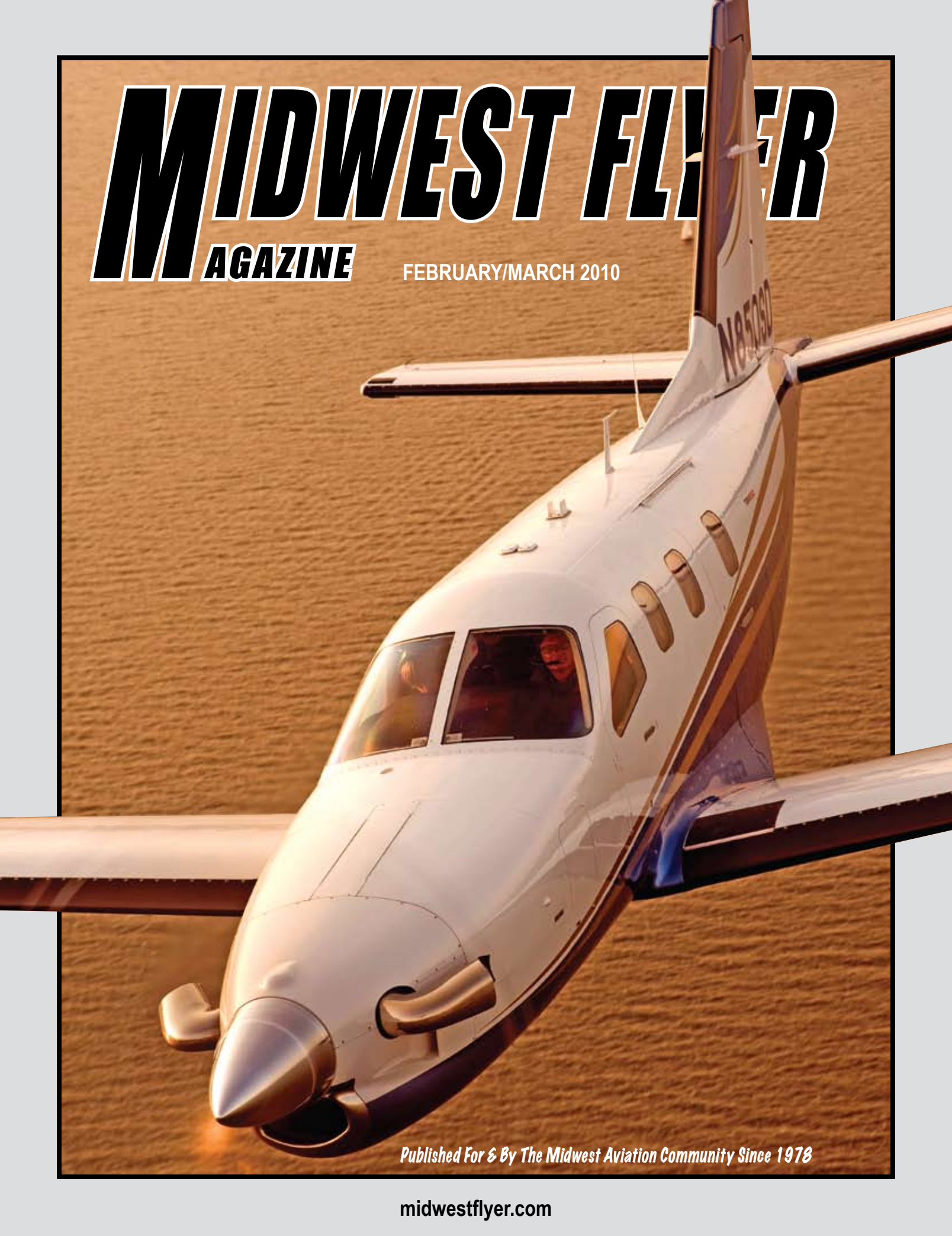


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Skiplane Flying Takes Bite Out of Winter

Elroy Hilbert

Luscombe 8A on takeoff.

Story by Allen Penticoff

It has been a long held desire of mine to fly a Luscombe. For years I had a grey tee shirt with yellow letters declaring “Luscombe – No Wood No Nails No Glue.”

But in 40-plus years of active general aviation flying, I never had the opportunity to actually sit in a Luscombe, much less fly one. I would talk to pilots at various fly-ins and they always said “sure, I’ll take ya sometime,” but like “see ya later,” none ever came to fruition.

Likewise, I had long harbored a desire to fly a plane on “skis.” A friend had a set of skis, but never put them on any of his Cubs. I would see skiplanes around places and of course see them in magazines, but again, the chance to fly an airplane with skis never really crossed my path.

Part of the problem is, that despite having winter weather here in northern Illinois, our airport has plenty of plowed out pavement to fly from in the snowy times, so there is little inspiration for local aircraft owners to install skis on their planes. This is pretty much true at most airports – even the turf runway places get plowed so wheeled aircraft can use the runways without difficulty.

In chatting with a pilot friend, Greg Manuel, one snowy day, I mentioned my desire to fly on skis. He said



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he knew of a local instructor, Elroy Hilbert, who gave dual instruction in a Luscombe 8A on skis. *Wow!* I can check off two things on my “bucket list” at once. The timing was right, our weather had left us with plenty of snow, but not too much; even a recent couple inches of powdery snow on top of a solid base. I got in touch with Elroy through email, and we kept an eye on the weather with a tentative date, New Years Eve, when he could fly. My enthusiasm led Greg Manuel to also arrange for his teen pilot son, Richie, to get two hours of ski dual later the same day.

On the eve of the fly date, the weather looked good. We just had a snowy day, but it was to stop overnight. In the morning we had low visibility, marginal VFR, but the radar picture on the Weather Channel showed a large area of clear sky spinning our way. A brief call confirmed we would go for a morning flight.

I found Elroy at his Cottonwood Airport (1C8, Rockford, Illinois) hangar preheating the engine and instruments. Since it was a balmy 30 degrees out and his unheated hangar was probably colder still, I was glad to see him doing this. His Luscombe, being a 65 hp 8A, does have some “glue” involved in the construction of its flapless fabric covered wings. His Luscombe is a working plane, not a cream puff, with slightly scruffy paint and taped up seats. But mechanically, it is in great shape as he is an A&P mechanic as well.

To get the Luscombe out of the hangar, he had a system of galvanized steel water pipes to roll the skis on, reminding me at once of the ancient Egyptians rolling great blocks of stone to the pyramids. When the time came to roll the Luscombe out, the system worked great. In a later conversation, Elroy had revealed he had a set of lever-operated wheels for it, but he found they were difficult to work with compared to the pipe roller system. I know many skiplanes are simply kept outdoors, ready to use, or in hangars without doors where the snow piles up under the plane sufficient to taxi away. Also, some skiplanes have “wheel-skis” where the wheels retract, or are left slightly exposed below the ski.

There is no electric starter for the simple A65 engine, but the preheated little Continental popped right off after Elroy flicked the prop through a couple of blades by gloved hand. Of concern when starting the plane this way, was that there are no brakes on skis. However, the resistance of the snow to the movement of the skis kept us in place easily. Once the temperatures came up, it was evident as Elroy taxied us to the runway, that it takes a fair amount of power to get the ski-equipped plane moving, so having no brakes when hand-propping the plane, was not an issue unless you had a throttle runaway.

Elroy Hilbert’s 1946 vintage Federal skis have been rebuilt with plastic bottoms. This stuff is fairly slippery, but with proper sizing, they don’t have a tendency to slide for long

distances. This was evident in the practice taxiing I did down the 300 foot wide runway.

At Cottonwood, Elroy and other skiplane owners have insisted that the runway stay half natural snow, half plowed. Since the runway is exceedingly wide, this is not a problem. Except – keep this in mind if you are landing at a winter bound private turf strip – the snow may be deep on one part of the runway, even though someone on the radio claims the runway to be plowed. A low pass might be in order, particularly on cloudy days or during times of reduced visibility. Also, check NOTAMS, as the airport, like Cottonwood, might be technically closed to public operations, despite locals operating from it. Ask more questions or be exceedingly cautious.

We hugged the west side of the runway while taxiing to minimize the tracking of the middle portion of the runway at Elroy’s request. His Luscombe has a ski on the steerable tailwheel (which not every skiplane has), making turning rather easy. (There are ski-equipped tri-gear aircraft as well.) But turning takes a rather wide arc, particularly when one takes into account the much more pronounced tendency to weather vane.

Elroy told me that if dealing with a stiff crosswind, it may not be possible to bring the tail up into the wind in a 180-degree turn, so you have to keep that in mind and use the wind to your advantage to make turns when you can.

Although we did have crosswind conditions throughout the flight, and I could detect the weathervaning to be starting, I was easily able to maintain the straight course we needed or to make the runway end turn-arounds.

Hugging the edge of the runway, or even going off into the adjoining areas, was usually standard procedure. You do have to remember that the brakes are of no use to you while turning, and there is no “spinning around” on one gear either. But due to the completely foreign nature of

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Elroy Hilbert

Friends gather on a popular lake.

ski flying, I felt no urge to use the brakes or revert to wheel gear thinking.

In fact, skis open up a whole new world of possibilities during winter flying. Fields and lakes, and sometimes rivers, become airstrips, everywhere. Areas no wheeled plane would dream of going, become a new airport. Landing in that field next to the roadside café works just fine (with permission of course). Those lakeside restaurants are new fly-out destinations. Engine failure induced forced landings now are a less risky event as there are so many new places you can land, safely, without damage to the plane. Low altitude flight becomes somewhat safer with all the new landing areas available too. Elroy has firsthand experience with this in someone else's aircraft.

Overall, there is much more of that "bush flying" experience that comes with flying a stick-controlled classic plane on skis. The Luscombe's legendary "twitchiness" landing on wheels was nowhere to be seen while on skis. In fact, I've been told that in the olden days, pilots who learned to fly a Cub in the winter, on skis, had to relearn landing when the wheels went back on in the spring, as they tended to bounce, when the ski-equipped Cub rarely does.

Elroy made the first takeoff to demonstrate the difference from wheels, then turned the controls over to me.

The first of my many landings came at a private farm strip a few miles west of Cottonwood. With a stiff northwest wind, we had building and tree induced turbulence to deal with and a bit of crosswind to boot. The weathervaning was there, but no worse than any other crosswind landing in a high-winged light aircraft. The skis plopped down level, with no tendency to bounce. Ski landings are a piece of cake. The skis tend to track straight ahead quite well, and we slowed quickly, probably slower than on wheels, but not decelerating as fast as a seaplane either.

Skiplane flying is somewhat more like seaplane flying than wheel flying. The farm strip was a much narrower runway to turn around on, so this was a case of going off the edge a bit at the turn-around to complete the turn. Elroy insists on plenty of forward stick to pin down the skis and lift the tail a bit in the turn around.

It's not a time to be shy with power to get around. It takes a healthy dose of thrust to keep moving and rudder

the tail around. Sometimes we just kept the power up and swiveled right into the takeoff run.

This was my first ski takeoff. Lift the tail as normal, but rather like a seaplane, there is a sweet spot where one transitions from running flat on the skis to sort of skimming the snow before rotation and lift off can occur. This took a bit more forward stick than would normally be expected with a tail-up wheeled run, though some recommend a "soft field" takeoff technique to lift off as soon as you can.

Depending on snow conditions, a ski takeoff run can be considerably longer than one on wheels. Usually about the time I found this sweet spot, we would cross some hump in the runway and the Luscombe would be ready to fly, so we briefly kept a nose-low attitude in ground effect to gain



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some speed before commencing the climbout.

Another landing at the farm strip, then Elroy did a couple landings on a small lake, then off to some other places to land.

The weather was trying to clear in our area, but as we flew east towards the Poplar Grove Airport, it became overcast again with 4 miles in hazy visibility. This is significant, as without the sun shining, there is no contrast on the snow, creating a whiteout condition. We did not have a true “whiteout,” where no horizon is to be had, but we had a condition more akin to a seaplane experiencing what is called a “glassy water landing.”

In a seaplane, you’re instructed to throw a life jacket out on the smooth surface of the water to have some sort of reference point for your height above the surface. With the wide expanse of water and no waves, it is very difficult to judge your altitude visually. The landing technique is to establish a nose-high attitude with a slow rate of decent and simply wait until the touchdown happens. At Poplar Grove Airport, with a huge white expanse to land on, and no sun, the lack of visual reference for a landing was definitely apparent as the time to flare approached.

Applying my seaplane training for a glassy water landing, (but having never actually experienced one), I waited, and added and reduced power.

It seemed to be taking forever for the runway to greet us. Then, somewhat off-guard, we touched down and I pulled the rest of the power off. Fortunately, the east-west runway is quite long and plenty of room remained. The second landing to the same runway had the same eerie experience, with only our own tracks as a brief but nearly useless reference. I had not been able to use our own previous tracks as a reference because I could not see where they were until well into the flare/descent and they were too far off the left side to try to move over to. But if one knew of any tracks and could set up on them, it would be helpful.

After a brief potty stop and pilot chat in someone’s warm hangar, we headed back to Cottonwood. The sun was out in full there, and the landing was a greaser, or is that a “slider” in a skiplane. Taxiing to the gas pump, we surmounted a fair sized snowdrift with ease that would have brought a wheel-equipped plane to a halt. My dream flight had been completed. After discussing ski stuff with another aircraft owner who had a set to put on his experimental, 250 hp, Piper Pacer, off we went to meet up with Greg and Richie for lunch before Richie’s turn at this fascinating fun way to fly.

This was not full and complete training in the wiles and ways of ski flying. Different conditions make for different techniques of dealing with the snow. Oddly, some of the most

important things about flying on skis are where and how you stop the plane. Getting stuck to the snow or sinking in, is all too common, so techniques need to be learned to avoid problems getting going. As for landings, I know one of the more serious conditions to look out for, is the dreaded heavy crust on top of deep, soft snow underneath. To break through the top crust, and then have the sudden drag of that icy layer against the landing gear, can lead to the aircraft overturning. Very deep snow could have similar results. Not good. So getting a report on conditions is a must if you don’t know firsthand what they are – you certainly can’t tell from the air. You must also know that the ice will support the weight of the aircraft if you plan to land on any frozen water, and bear in mind that there can be hidden thin spots. All this is stuff that one would approach by spending more time with experienced skiplane operators.

There is no “rating” or even a sign-off for ski flying. And to the best of my knowledge, not one word in the F.A.Rs about it either. You are not exempted from any regulations, but your new freedom requires proper courtesy before using property otherwise not designated for flying operations. Insurance companies usually want to know if you are putting your plane on skis, and may issue a policy endorsement that has restrictions on where you may operate your skiplane. Know before you go.

Since skis are fairly easy to install and remove, the FAA allows owners to install them with only a logbook endorsement. But if you are not familiar with the set up, you may need to have a mechanic do the work the first time, especially if any hardware needs installation. If you have never had skis on the aircraft, you will have to have an I.A. sign off the work as there is STC paperwork involved. But once you have your plane set up for this special winter flying, you will be looking forward to snow covering the land, rather than dreading its arrival. □



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