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The Introduction to the Modelaircraft World

Public Letter 2/08
March /April 2008
www.fai.org/aeromodelling/ciamflyer
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Winter Flying by the Lake

Is it enjoyable to go water flying in below-zero temperatures on a lake that's just freezing over? Read this report to find out.

by Hans Jürg Baum

Hard Frost
We're on our way to the lake, then a beautiful sight: all trees are covered in a white frost! Similar to penguins protecting their chicks from icy snow storms, we put our batteries in our trouser pockets to warm them up. After arriving at the lake, we find that it is only frozen over at the very edges and in certain spots. The first rays of sunshine penetrate the fog. Backlit steam rises from the lake. An indescribable atmosphere!

Whispering Electric Motors in the Still Winter Landscape
Our whisper-quiet electric motor models are ideal for the still winter atmosphere. Taxiing with a single water rudder attached to the left-hand float is no problem. I turn one or two circles in displacement mode to conjure up some small waves in the mirror-flat lake. They will make taking off easier. Now it's time for take-off precisely according to the textbooks. Open the throttle slowly and pull up a little so that the points of the floats emerge from the water almost to the separation edges. Carefully open the throttle more and more and patiently wait with pulled elevator until the speed picks up more. Then put the elevator in its neutral position. Another smidgen of power and here we go: Just as I had hoped, the slightly larger floats have changed from

displacement mode to planing. Beautifully, like a planing windsurfer, the Piper Cub J-3 races over the water. A tiny positive nudge of the elevator and our kingfisher is airborne. I find out that the slightly larger floats do have some effect on the flying characteristics. Although the slow flying characteristics have not been noticeably affected, curves have to be flown with a bit more speed. Now I wonder what the water landing will be like. The Piper approaches with moderate speed into the light wind and just above the water level I use the throttle to reduce speed and carefully pull the elevator up a little. The floats touch down gently on the water and, after a brief planing phase, change to displacement mode.

Caution - Icy Patches!

Now I'm headed for the airport. But my water rudder design no longer seems to work, so I have to steer as before: With a relatively large amount of throttle and full rudder deflection to counteract the side wind, I reach the shore. On reaching the shore, I discover that the water rudder is partly frozen and hardly moves. It looks like I'll have to winter-proof my design. My friend, an experienced water pilot, now demonstrates a perfect take-off with lovely planing phase before lift-off with his Taxi. A safe flight with low passes, so close you could almost touch the aircraft, is followed by the expected perfect landing. It is as beautiful to watch, as a flying swan landing on water. During his second flight, the effect

of the elevator slowly eteriorates. He immediately brings the plane down and discovers that the elevator hinges, that got covered in spray during take-off, are frozen solid!

The Fog Returns, the Sun Disappears...

Meantime, the fog has returned. It is bitterly cold. The lake disappears in a haze of gray and the flying show is terminated, although my batteries would easily have been good for another two flights. As I anticipated, the models were completely covered in ice, especially on the undersides. So what? The ice will melt in the car or, at the very latest, at home.

⇐ An old water pilot's trick: When the lake is mirror-flat, the floats sometimes seem to literally stick to the water and won't start to plane. The thing to do, is to take one or two turns in displacement mode to create some small waves. These will rapidly spread and form an ideal runway.

⇓ My friends Robert and Bruno