



The Seawind Flyer

Summer 2011

"The evolution of an intelligent design."™

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THE EVOLUTION OF AN INTELLIGENT DESIGN CONTINUES...

In the spring *Seawind Flyer*, we published the same headline thinking that this time we were home free and the evolution had peaked.

The flight testing was picking up speed, and we did not think any surprises remained.

In Québec, there were a number of new certifications and aircraft manufacturer start-ups in the past decade. They no longer exist.

Someone said to me, "You're the last man standing," and that's despite not receiving any current assistance from normal funding sources in the provincial and federal agencies. "It is also against all odds of bringing such a unique, almost revolutionary design to certification."

We were making great progress with the certification flight testing data gathering when we ran into another glitch. This time it was at the idle power setting with flaps down and with a heavy aft c.g. load. The directional and lateral stability with the propeller windmilling and blocking the air flow across the tail did not comply with the regulations.

This latest "glitch" is just that. Do you remember that Robert Erdos, our Canada National Research Council test pilot said, "Anything can be fixed"?

Well, our expert flight analyst, John Taylor, quickly came up with a fix. The Seawind is now compliant, yet this is where we had to make a decision. The "fix" works but it affects the beautiful, sculptured lines of the Seawind. Once he had a fix then John offered some other methods that would have cleaner lines that may work almost as well. We decided to test these other methods over the next two or three weeks and, if they are compliant, we will incorporate them. If not, we will adopt the "fix" and move on.

FLIGHT TESTING

Within one hour of solving the glitch, we had to perform a 100-hour inspection, which is equivalent to an annual inspection.



The Seawind returns home for its 100-hour inspection.

We brought the Seawind back to Saint-Jean-sur-Richelieu to perform the inspection at the factory. The Seawind had been flying reliably for the last two to three months with unsuitable weather being the only loss of time.



During the 100-hour inspection, the Seawind will be prepped for the next tests.

During the 100-hour inspection, we took advantage of the ground time to make all of the devices needed to test and refine the alternate glitch fixes.



Patrick Desautels is our Chief Aircraft Mechanic.

We also have some upcoming power plant and systems tests that require some instruments to be installed.



Réal Martin is installing some of the next testing equipment for the engine.

All of the work has been accomplished, and the Seawind is scheduled to resume flight testing in Ottawa on July 11.

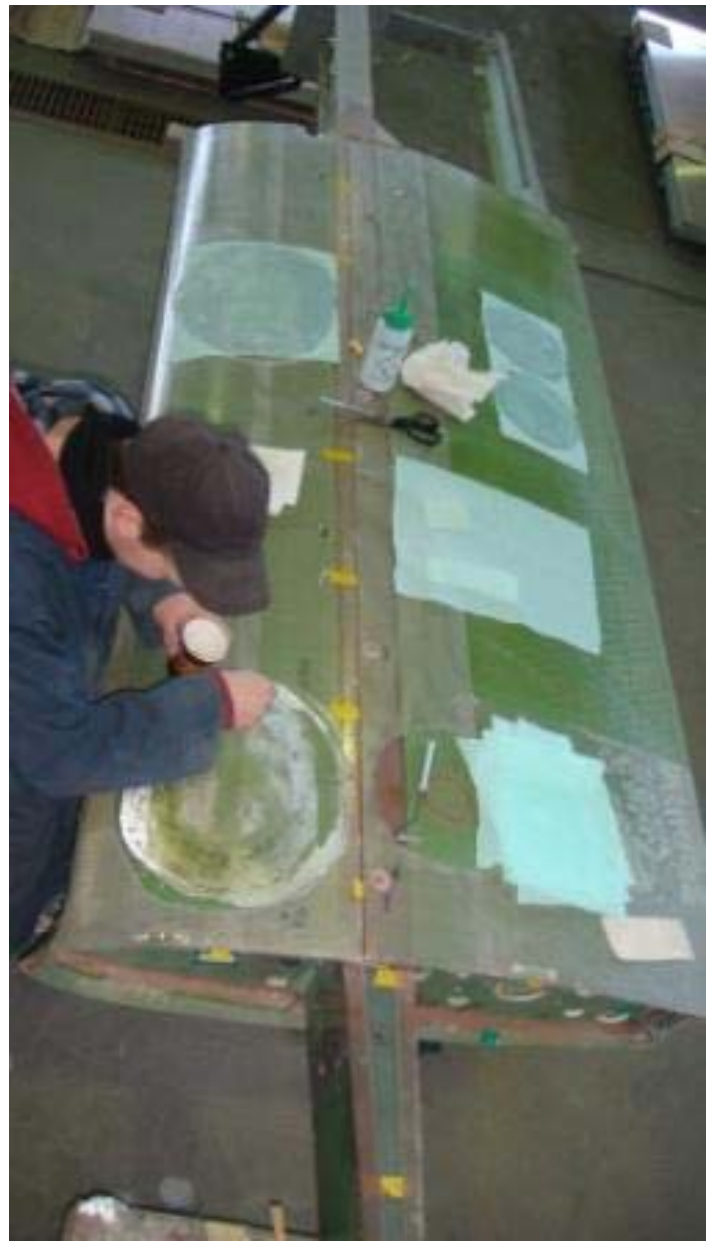
THE STALL PREVENTION SYSTEM (SPS)

We have performed a number of test flights to calibrate the dual computers that are the brain of the system. The stick shaker has been working reliably. The stick pusher motor did not have sufficient torque to achieve the speed and force to meet the requirements. We had great difficulty finding the equipment to do the job and that also meets aircraft standards.

The order has been placed, and the equipment should be shipped at the end of July. It will fit within the space of the first installation and the mounting brackets will be similar.

DAMAGE TOLERANCE TESTING

The second lifetime of tests has been successfully completed and fully inspected without any sign of test article failure. The last half of a lifetime was completed with a whole series of major test repairs. Having passed the tests, we now meet the field repair procedure requirements. The final test will be to ultimate load and then to find the load at the break point.



OSHKOSH

A number of people have asked if we will be at Oshkosh this year. Sadly, no, for a number of reasons.

First of all, we would have to stop the flight testing to have the aircraft at Oshkosh. The cost of attending would also put a drain on our flight test budget.

Oshkosh is not a one-week event for people who have a display site.

- ~ It takes almost a week to get ready and load up to go
- ~ It takes two days on the road
- ~ It takes two days to set up
- ~ We are open for a week

- ~ It takes one day to tear down
- ~ It takes two days to return
- ~ Finally, it takes a week to put everything away and then get back to work

So for the people involved, it is a month. For the aircraft, it is over two weeks. We need to apply our limited resources to completing the certification so that we can fill the orders we already have, thanks to our loyal customers.

VACATIONS

The factory will be closed for vacations from July 25 through August 5, 2011. We will be continuing flight testing during that time.

Richard Silva