



# The *Seawind* Flyer

Spring 2005

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## FUNDING FINALLY APPROVED

Final funding for the completion of the Seawind business plan was approved on the first of March. Arrangements for the release of the funds will be accomplished the first week of April. We are gearing up and proceeding in an orderly manner, confident of completion and success. We are now assured of certification and have projected new delivery dates for advanced orders.

Last fall we published that we had obtained funding to complete the certification. Previously, we had to 'throttle-back' to keep from overrunning our budget. We had received an offer letter and announced on that basis.

Last winter we wrote that the due diligence was taking much longer than expected so we continued to pace ourselves. We expected everything to be completed by January.

Needless to say we incurred delays and did not achieve the progress we wanted. We did maintain the pace of construction on critical path items, i.e., landing gear, seats, wing/fuselage tooling and producing production parts.

We are now targeting our flight program for the end of the year. In Canada we are allowed to produce aircraft prior to receiving full certification, as long as any modification required during testing is made on all aircraft. We will ramp up production by starting to make parts that won't change during our certification program. This should enable us to build twenty to twenty-four aircraft in 2006.

We have notified our order holders of the revised Expected Delivery Dates (EDD). We regret the delay and appreciate everyone's understanding.

## OUR NEW TEAM MEMBER

With the funding secured we were able to hire a Marketing and Sales Manager. Bill Poirier is a re-

tired US Army pilot who managed AvMap Navigation, Aviation for the past three years. Bill will be your main contact at Seawind and will also serve as your contact as your Seawind 300C is produced. Give Bill a call or email him, 610-917-1120, ext 203 or bpoirier@seawind.net.

## PURCHASE CONTRACTS

There is no need to delay ordering your Seawind and securing a production position while obtaining a reduced pre-production price of \$294,700.

We originally expected to have the certified demonstration aircraft flying this summer. Most of our customers have flown the proof of conception (POC) Seawind.

Now that we can pick up speed, the schedule does not permit much time for demonstrating the POC Seawind. So, we are offering to any purchaser who wishes to reserve a delivery position, the following:

***If you order the Seawind by placing a \$9,000 deposit in the protected bank escrow account, we will make your contract subject to a satisfactory demonstration flight. Following the demonstration flight, if you are not satisfied with the airplane, for any reason, your deposit will be returned with interest.***

We have also added a provision in the contract that if you lose your medical, prior to the start of production of your Seawind, your deposit will be returned with interest.

## BACK AT THE FACTORY

Despite the funding delays we have continued to make progress.

~ **Bond joint tests** have proven to be 20% to 40% stronger than the allowable we have used for even the hot wet conditions (elevated temperature to 160 deg. F and 85% R.H. for forty five days). Vinyl ester resin is far superior to epoxy for resisting moisture and corrosion. It is also more impact re-

sistant, especially with E glass, which does not shatter like carbon fiber.

~ **Landing Gear Drop Tests** have been completed and both the nose and main landing gear have been released for production.

~ **Flight Controls** have been released for production.

~ **Electrical Harness Board** has been developed and the HYDRAULICS and FUEL system tubing board will be completed this month.

~ **Wing Assembly Fixtures** have been made for both wings and the FUSELAGE FIXTURE has been completed.



*The two wing spar & rib assembly fixtures are complete*



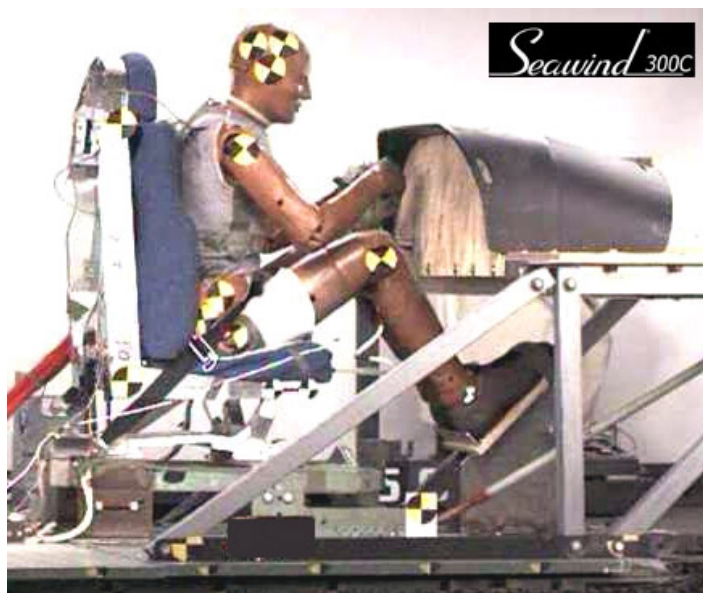
*The spar/rib assembly installed in the left & right wing assembly fixture to complete the wing and sponson.*



*The hull fixture is complete*

~ **Flaps** have been successfully tested for limit load with one hinge disconnected. All flight control surfaces will be tested in the same manner.

~ **Sled Crash Tests.** We have completed our developmental sled crash tests. The seats passed the 26g forward crash test with margin to spare. The seats were 10% too stiff for the 19g vertical 60° angle. We will reduce the stiffness of the seat bottom. When complete we'll schedule the official final certification tests. The 26g forward test was a complete success. THE WORK GOES ON...



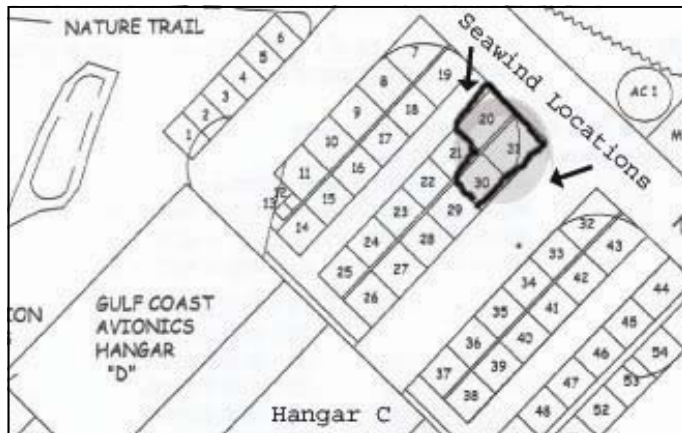
*The 26g forward tests were a complete success. Here the seat is shown at the forward limit.*

## SPRING IS HERE

Spring is here and the air shows will be starting.

~ **Sun 'n Fun, April 12 to 18**, is the first big one.

For those of you who have not previously attended, it is a must. Mid-April weather in Florida is very pleasant. Lakeland is an hour from Orlando and Disneyland, which makes it a great place if you are bringing the family. Our display site is at the same location as last year. **Sites N20, N30 & N31.**



~ **AOPA, June 4, Frederick, Maryland.**

~ **Oshawa, June 25-26, Oshawa Municipal Airport, Oshawa, Ontario, Canada**

~ **Air Venture, Oshkosh, Wisconsin, July 25-31.**

As mentioned previously, the concept Seawind will make limited appearances. Check our web site and click on Seawind news to see our schedule. We will be attending some small air shows.

## **SAFETY**

Safety is the most important consideration in aircraft design and operation. SAFETY RESTS FIRST AND LAST WITH THE PILOT'S JUDGMENT AND TRAINING.

We must do our part in building a strong durable crash-worthy structure. We have done that. There is no stronger certified general aviation aircraft on the market, including the other two composite aircraft.

The basis of the Seawind design criteria is that the Seawind must land gear up by skimming along the surface without digging into a sudden stop. It must do it with no damage and it must do it repeatedly on water and then take off again. The same applies to snow and wet grass. It also applies in an emergency on a plowed field, a cornfield, desert sand, a swamp, etc.

We must also do our part in providing crash-worthy seating. We have provided an aircraft with hands-off stability and outstanding performance. Soon it will be time to institute the training program.

## **FLOATATION**

Many single engine land pilots avoid or go around large bodies of water. If they do go over, they climb extra high to get more glide range.

The Seawind, of course, floats. It also has four floatation compartments that will keep it high and dry. Even if the 'near impossible' happens, and all four floatation compartments are flooded, the Seawind has enough composite foam core that it will still float even if swamped, right side up or up-side down.

Why a Seawind? Why an amphibian?

Doesn't it make sense? Even if you are not sure you want to be water rated, why not a Seawind?

~ It costs less than any four-place high performance composite or aluminum aircraft.

~ It's the most attractive aircraft on the market.

~ It is the strongest four-place GA aircraft available.

~ It has more landing options.

~ It has extraordinary flight characteristics.

~ It has the speed of a high performance aircraft with over 166 kts (190MPH) cruise.

Even if you don't use the Seawind on the water, you still have the world's best land plane for less money.

## **FLIGHT CHARACTERISTICS**

Our web site has an outline of handling characteristics to provide you the basic operations on land and water.

Our customer survey revealed a much higher number of student pilots and low-time pilots than we expected. We want to offer some information to those pilots.

Obviously, none of us learn to fly in a high performance aircraft. If you are taking flying lessons in a Piper Cherokee or Warrior, then you have witnessed similar stall characteristics to a Seawind.

When graduating to a high performance retractable aircraft with a constant speed prop, it is prudent to do it gradually. Get used to extending and retracting the landing gear and different power settings.

The key to safe handling of a high performance aircraft is to slow down. It is very important in marginal weather and especially important in IMC. We don't have co-pilots and navigators. Slowing down gives you more time to think and anticipate your next action. If you get too busy, turn on the auto pilot. If ATC is firing out instructions like a machine gun, calmly ask them to "repeat please:"

The Seawind has very stable slow speed handling characteristics. At 90 to 100 knots it is very responsive with flaps up or down. It is a stable IFR platform which can be set at a 500 foot per minute descent on an ILS approach.

## **LAND TAKE OFF PROCEDURE**

After going through your run up check list, set the flaps to 20 degrees for take off. With the elevator trim set neutral or slightly up, advance to full throttle with maximum RPM and mixture setting. As the Seawind accelerates, adjust the up trim until the rotating force is comfortable at about 10 pounds of force. At 55 to 60 knots start rotation and the Seawind will lift off between 60 and 70 knots.

Once the wheels leave the ground, the point of rotation moves forward to the wing center of lift and the stick force drops about three to five pounds.

Raise the landing gear when you can no longer land

straight ahead on the runway. The best rate of climb speed is 85 knots with the flaps retracted to zero degrees. Climb to altitude at full power or reduce to 2500 RPM and 25 inches manifold pressure (MP).

At altitude, set the RPM and M.P. to the desired cruise setting. The Seawind has a natural laminar flow airfoil. The flaps reflex up to -10 degrees and the speed will increase 10 MPH or almost 9 knots.

The Seawind has a very responsive roll rate and pitch control. With three axis electric trim, the Seawind is truly a hands-off machine. Even with sudden power changes, the Seawind is a one-hand machine. A full power go around requires a fifteen pound stick force pull for a few seconds. A sudden reduction to idle at cruise speed requires three to five pound forward stick force again for a few sec-

onds. Thereafter, you enter a conventional 10.9 to 1 glide ratio.

When you are ready to descend to land, lower the flaps to zero degrees and throttle to nineteen inches MP and gradually descend. Avoid rapid or shock cooling. As you slow to approach the airport, slow below 125 knots and lower the landing gear. As the Seawind slows to 105 knots, lower the flaps to 20 degrees down wind, 30 degrees on base, and full flaps on final. Remember that the Seawind has great ground affect. It wants to keep flying so hold it a few feet above the ground and bleed off the speed by gradually raising the nose. The Seawind will touch down at about 56 knots. So you can understand why we say the Seawind is an excellent land plane. You need not use it on water. You have not sacrificed land plane performance, You have increased comfort and you have saved money. **That's a Grand Slam!**



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