

## 1.0 SEAWIND BUSINESS SUMMARY

### 1.1 Introduction

The Seawind aircraft is a perfect union of form and function. The sleek flowing lines make it the most striking of land or sea planes. We have developed the world's best and fastest four-place amphibian.

The spacious cabin, panoramic view, quiet environment, and form-fitting seats all combine to create total traveling comfort.

Since the dawn of aviation, designers have been trying to create a seaplane that would fly as fast and as far as a land plane and carry a reasonable useful load over a long distance.

Using advanced composite technology and innovative design, Seawind has accomplished that lofty goal.



The unique design offers a top speed of 174 knots (200 mph) and a high cruise of 168 knots (190 mph) with a useful load of 1,100 lbs. and a no fuel reserved range of 1,460 statute miles.

High speed stability is superb. The standard slotted flaps and the swept back wingtip floats (sponsons) create an extraordinary ground effect, cushion touch down and speed lift-off. Low speed stability is excellent.

Never before has an amphibian offered so much comfort. The Seawind has the widest cabin in its class with family five-place seating or an executive deluxe four-place configuration. The seats are bucket-style adjustable with temper foam for ultimate comfort.

The wrap-around windshield offers a spectacular panoramic view even for the rear seats.

Whether the mission is a business meeting in the city or a fishing trip into the wilderness, the Seawind fills the bill. The Seawind is the only plane that fulfills every customer's needs.



## 1.2 The Product

### ***Product Uniqueness***

The Seawind, being a high performance amphibian aircraft is, by definition, unique. The Seawind is the only aircraft that can bridge both the general aviation single engine land and single engine seaplane/amphibian markets. The "crossover" market for the Seawind includes: high performance, single engine retractable gear and light twin engine aircraft of either metal or composite construction. The Seawind is the only amphibian that is compared to a high performance land plane in the air. The Seawind is the only high performance airplane that is compared to slow, utilitarian seaplanes on the water. THE SEAWIND HAS NO COMPETITION.

### ***Customer Options***

The uniqueness of the Seawind has led to an equally unique list of options such as:

- A built-in, gasoline-fired extendable/retractable water motor that can maneuver the Seawind forward or backward on the water from 0 to 6 knots.

- A camper top that converts the open cabin to an all-weather bedroom for two.
- A toboggan option for landing and taking off on ice or snow.
- A complete line of boating accessories.

### ***Future Production and Product Improvement***

The primary focus for this Canadian initiative is to further develop the Seawind by certifying it under the guidance of Transport Canada and bringing it to market in a commercially successful venture. Production and sales of the certified Seawind and ongoing derivatives is the future of the company. The kit version Seawind has been phased out. A primary category version of the certified aircraft will be made available in countries where approved. Emphasis will be placed on continuing product development and improving performance, utility, and load and passenger capacity. A future six passenger model would have commercial applications.

### ***Product Outgrowth***

An outgrowth of the Seawind's unique room temperature molding process is the manufacturing of parts for other certified aircraft or military projects. WE ARE THE ONLY COMPANY IN THE WORLD THAT HAS MIL HANDBOOK 17-E "A-BASIS" APPROVAL. We can make parts for Boeing or Airbus.

### ***Intellectual Property***

The Seawind project has achieved approval of crashworthy seats meeting the stringent 26 g criteria. This and other products have potential for use in other aircraft as subcontracts or in licensing to other manufacturing companies.

## **1.3 The Project**

The successful future of the Seawind is in its Transport Canada CAR Subpart 523 and U.S. Federal Aviation Administration (FAA) Part 23 certification, and production and sales of the completed, certified and ready-to-fly aircraft on a worldwide basis.

When the certified Seawind aircraft is available for worldwide sales distribution, sales at the rate of 100 to 150 units per year are conservatively projected for production. The Seawind will be self-sustaining within two years of startup in Canada and after Transport Canada issues a Type Certificate.

It is estimated that the Seawind project will create 190 jobs.

The Seawind was formerly produced in component parts form, commonly referred to as a kit plane. The kit versions of the Seawind were for owner assembly and operation in the Amateur Built/Experimental Aircraft category. Kit

sales and production from the USA were ended in 2003. The kit company, SNA, Inc., is unrelated to the certified Seawind organization. It is responsible only for supporting its customers.

The certified Seawind is manufactured with a unique vacuum-assisted infusion process that meets all the stringent TCCA and FAA requirements. This unique process gives the Seawind a major competitive advantage in the market.

### **STATUS – WORK REMAINING**

The only structural test remaining is the second lifetime fatigue testing requiring three months. One lifetime has been completed. Some firewall and flame tests of fabrics remain to be done.

Final reports and documentation will require about four months.

Upon receipt of the certification Type Certificate for VFR, deliveries may be made to customers.

The final IFR, autopilot, and glass cockpit approvals will require about three months (one month each). Thereafter, all Seawinds will be approved for IFR when equipped.



### **1.4 The Market**

A comprehensive market study was performed by McNeal Associates that reviewed general aviation industry trends, including recent Federal Aviation Administration (FAA) forecasts and General Aviation Manufacturer's Association (GAMA) production figures. Changes in the general aviation market are

discussed, and the study outlines the renewed optimism for general aviation growth since the 1994 General Aviation Revitalization Act.

The Seawind does not have a direct competitor in the seaplane market. Because of the Seawind's performance and its perfect suitability for land operations, it will compete with land aircraft, something a seaplane has never done.

Over 75 percent of Seawind sales have been to land pilots with no seaplane experience. Most, as a result of their purchase, later became water pilots, but that is not a requirement in order to operate the Seawind from a land base.

Amphibians normally pay a performance reduction of 25 to 45 percent and a payload reduction of up to 40 percent over a comparable land plane. The Seawind, in most cases, has better performance than comparable aluminum aircraft and is within 10 percent of a comparable composite land plane.

The Seawind will compete in the personal transportation use market segment, which includes recreational use and is considered the largest market segment in general aviation and the primary use category for the Seawind. Business use by the owner-pilot is identified as the second largest market segment. Other market segments, including commercial, governmental and utility applications are considered, but these will be smaller, although lucrative, markets for the Seawind.

Fifty-six deposits have been received from customers for the certified aircraft. Because of the Seawind's appeal to both land and water pilots, orders are conservatively expected for 125 to 150 aircraft annually. The company expects the production rate to top 200 Seawinds per year. The breakeven point is estimated to be 14 aircraft per year.

## **1.5 The Companies**

The Seawind organization is comprised of Sea Air Composites, inc., which is the Canadian manufacturing company, and Seawind LLC, which is the marketing, sales and customer service company in the USA. Both companies were solely owned by Richard Silva until a number of investors became shareholders in April 2009.

Sea Air Composites, inc. (SAC) is a foreign-owned Canadian corporation. It owns an 82,000-sq.-ft. office/manufacturing/hangar facility on four acres of land, held fee simple, at Saint-Jean Airport in Saint-Jean-sur-Richelieu, Quebec. It can easily be expanded up to 100,000 sq. ft. for an additional product line.



Seawind LLC is located in Chester County, Pennsylvania. It is scheduled to relocate to a new corporate sales and service headquarters location at Chester County Airport.

## **2.0 ECONOMIC DEVELOPMENT**

The project will create 190 jobs in Quebec, Canada and about 15 jobs in Pennsylvania. The Seawind project is an anchor facility for the Saint-Jean-sur-Richelieu Airport. It has already increased property value 50%. The balance of trade for the U.S. and Canada between international communities will be improved by the considerable market demand outside North America.

## **3.0 ENVIRONMENTAL**

Any environmental issues were mitigated by the city, Quebec provincial and Canadian federal governments when the airport was transferred from the federal to the city government. The Seawind facility meets or exceeds all the current environmental regulations. Reports are available for review.



## 4.0 SCHEDULE

		TOTAL
4.1	Completion of flight testing and certification documents and reports is expected to take five months.	5 months
4.2	Production ramp-up will overlap certification by three months and will require an additional nine months to reach a production level of five aircraft per month.	<u>9 months</u> 11 months
4.3	Thereafter, we plan to build up production as sales demand. With further duplication of jigs and fixtures and additional personnel, we will have the capability of producing up to 235 Seawinds per year.	

## 5.0 PROGRAM STATUS

Until recently the Seawind project has been funded by Richard Silva as the sole owner of SAC and Seawind LLC. He has supplemented his investment with a number of provincial and federal research and development programs. Recently a number of investors have joined the program.

- 5.1 The **first phase** was intended to commence research and development and to identify and solve any problem that might preclude certification and production techniques. It was funded by Silva.
- 5.2 The **second phase** was primarily funded for the final testing, flight testing and tooling development as well as the first test aircraft.

The status was:

- ~ Flight testing was nearing completion;
- ~ Certification was assured;
- ~ Transport Canada had authorized the manufacture of five customer aircraft;
- ~ Ramping up production had started.

Events then required additional expense to restart the project and additional flight testing.

**5.3** The **third phase**, which has been largely funded, was directed to:

- ~ Revive the flight testing program by completing the second test aircraft, which has rolled out, and to start assembling the third aircraft.
- ~ Complete the flight instrumentation and flight testing with the Canada National Research Center (NRC). The contracts have been issued to the NRC.
- ~ Complete the damage tolerance (fatigue) testing. One lifetime is complete on the horizontal tail. The tests have been started on the wings and two lifetimes will be performed. Complete component testing.
- ~ Complete engineering reports and certification documentation. Upon the receipt of the type certification, the phase 4 funding will be required.

**5.4** The **fourth phase**, which is the objective of this funding effort, is to:

- ~ Ramp up production at a faster rate to reduce the order backlog to one year.
- ~ Supplement assembly tooling to increase production and accelerate employee training.
- ~ Reduce cost by increasing order quantities and increasing inventories.
- ~ Fund marketing and advertising program during initial ramp-up of production.
- ~ Complete the certification of customer options.
- ~ Establish the sales and service and customer training program.



## **6.0 FUNDING REQUIRED**

For full investment and financial information, please contact us at [seawind@seawind.net](mailto:seawind@seawind.net) or 610-384-7000.