TEXT AND PHOTOGRAPHY BY J. DOUGLAS HINTON

Turbo Seafury

The Lake Renegade gets a new name, retains tough shell

There's an old saw among seaplane aviators that water flying is the most fun you can have with your clothes on. After flying the Turbo Seafury, I'd say it's the most fun you can have . . . period.

You might be scratching your head and saying, "What happened to the Lake Renegade?" Well, it's still there, but in new livery. A number of features have been added as standard equipment, such as extra Sermetel ceramic corrosion proofing, lifting rings to hoist the aircraft from the water, extra storage space in the nose compartment, two more

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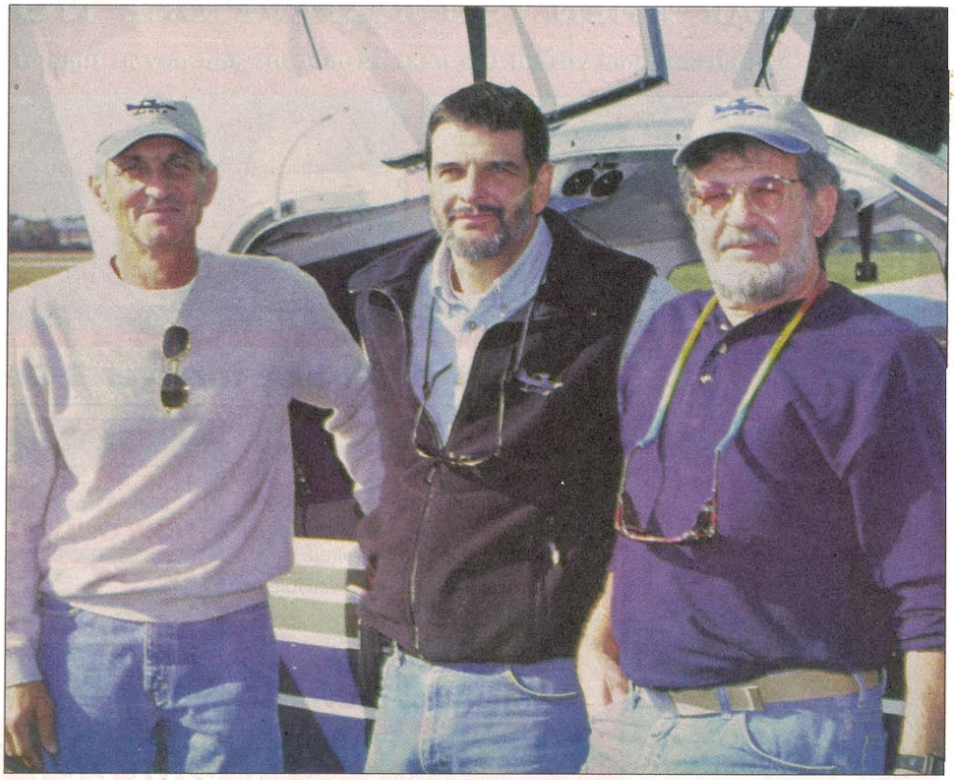

TOP: *Ramping the Turbo Seafury on a shoreline.* **ABOVE:** *Left to right, Terry Pfeiffer, owner of the test aircraft; Bruce Rivard, vice president of Lake Aircraft; and Armand Rivard, president of Lake Aircraft.*

Turbo Seafury

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small windows at the rear of the cabin, and an upgraded interior. Besides, according to Armand Rivard, the Big Kahuna at Lake, the "Renegade" name does not have a flattering connotation when translated into certain languages. Ergo, the new name and image.

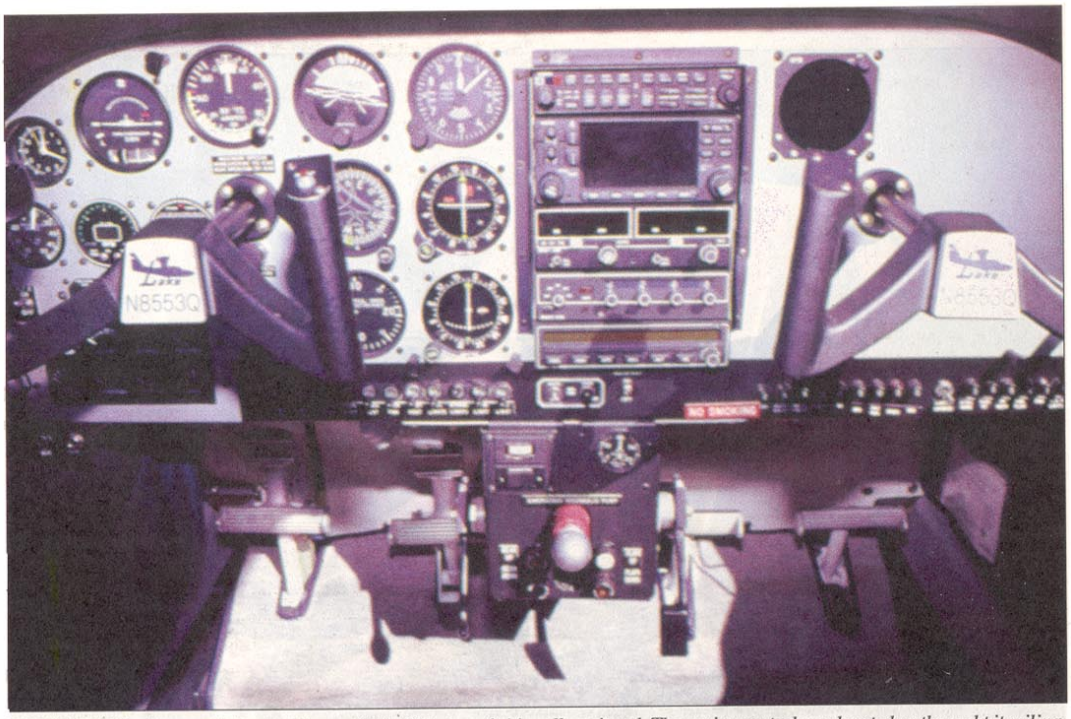
If you want to set your hair on fire, this is not the airplane for you. But it will cruise a respectable 130 knots at 10,000 feet. Add another 25 knots at the service ceiling of 20,000. The Turbo Seafury will also get off that 10,000-foot-high lake near Leadville, Colorado, at its full gross weight of 3,140 pounds.

Certain latecomers to the water scene have criticized the Seafury as "old technology." Granted. Except for a few fiberglass moldings in non-structural areas, this is an all-metal airplane that's subject to corrosion if care is not exercised, particularly if operated in salt water. But when the waves are more than a few inches high, I'd sooner trust my skin to this "old technology." This is one tough bird that can take a beating. Why fix what ain't broke? With more than 1,300 Lake amphibians delivered to 38 countries, enough said.

But let's get to the specifics. . .

Airplane

Single engine, tricycle gear, mid-wing with sponsons, pusher prop, four- to five-place amphibian. Hull contains five separate watertight compartments to mitigate holing of the bottom by unseen objects in the water. Deep "V" hull design and strakes on the bottom provide amazing agility in step turns and circular takeoffs.



SEAFURY PANEL: *As you might expect from a $745,000 aircraft, it's well-equipped. The engine controls are located on the cockpit ceiling.*

Powerplant

It's a Textron Lycoming TIO-540-AA1AD. Turbocharged and fuel injected with 270 eager horses. TBO is 2,000 hours, and the pylon is mounted on top of the fuselage behind the cabin. Internally and externally braced. Location eliminates FOD (foreign object damage) and water erosion to the propeller.

Propeller

Hartzell three-blade metal Q-tip (to reduce sound level), constant-speed pusher. De-iced by engine exhaust.

Landing gear system

Hydraulically activated, fully retractable, held up or down by hydraulic pressure and mechanical locks. Trailing-link design for rough field work and/or taxiing over uneven shore bottoms.

Fuel system

Fuel provided to engine by mechanical engine-driven pump and electrical boost pump. Two wing tanks, a fuselage tank and sponson tanks provide a total of 90 gallons.

Hydraulic system

Electrically driven pump with fluid reservoir and accumulator. Operates gear, flaps and elevator trim. A manual pump serves as a backup, and each system can be isolated in case of malfunction.

Flight controls

Push rods rather than cables. Faster control response. This eliminates the need for service to adjust for cable tension, pulley alignment and wear, and makes the controls less susceptible to effects of corrosion.

Cabin

There are four to five seats in a wide, comfortable cabin situated ahead of the wing. The positioning gives you excellent visibility, even in turns. A 200-pound baggage compartment, accessible in flight and located behind the rear cabin bulkhead, is large enough to accommodate skis. The large cargo door affords easy ingress/egress for passengers in the

rear seats.

Operating costs

Lake puts hourly operating costs, to include fuel (when it was $2 per gallon), oil changes, inspections and engine overhaul reserves at about $63, based on 200 hours per year. Add about $1,000 a year for liability insurance and 1.5% to 3% of the aircraft value for hull insurance. This includes depreciation, hangar and other incidentals. Private Lake owners typically do not have a high annual utilization except for a very few who use the aircraft for business as well as pleasure flying. On the prior-owned market, these amphibians have surprisingly few hours for their age.

Flying the Turbo Seafury

The walk-around inspection involves the usual checks with a few notable variations. To check the oil, it is necessary to climb on the wing and unbutton the left side of the engine cowl. The condition of the propeller is also examined from this vantage point.

It is also extremely important to make sure the fuel-vent holes on the fuselage are free of obstructions — especially if the aircraft is based in the southern U.S. These holes become almost irresistible homes for insects known as mud daubers, even if the aircraft is only sitting idle for a few days. Many Lake owners insert golf tees in the vent holes to keep the insects out. But then one has to remember to remove the tees before flight.

The most uncomfortable part of the preflight is crawling under the hull to remove the five drain plugs with an Allen wrench. That's to allow any water inside the hull to drain. There is almost always at least some water if the airplane has been playing on a lake, or if there has been recent significant rain. The onboard bilge pump, which is hot-wired to the battery, removes most but not all of the water. Additional drain plugs under each wing float or sponson are much easier to access.

It is important to check the hydraulic fluid level because there is no quantity gauge on the instrument panel, only a pressure gauge. The dip stick is located on top of the turtle deck behind the engine pylon.

Engine start is straightforward. All the controls are located on the cockpit ceiling. Battery/alternator switches on, fuel on, prop full, fine pitch, mixture idle cut-off. Engage the fuel boost pump for three or four seconds, then turn it off. Engage starter. When the engine fires, put the mixture to full rich.

On the way to the runway at Winter Haven, taxiing was easy. Very little differential braking was needed, thanks to the huge rudder. We were heavy as we stopped for the run-up: four adults and full fuel except for the burn-off from Venice to Winter Haven. I calculated we were about 100 pounds below gross takeoff weight.

The aircraft, graciously provided to us by businessman/pilot Terry Pfeiffer of Fort Myers, Florida, was also well-equipped with optional standby alternator and aileron trim, heater and a full suite of Garmin radios plus a Stormscope.

Prop governor and magnetos were checked at 2,100 rpm. Fuel boost pump was switched on for takeoff, the

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LAKE TURBO SEAFURY

Engine	Textron Lycoming TIO-540-AA1AD
Horsepower	270 @ sea level
TBO	2,000 hrs
Length	28.3 ft
Wingspan	38.3 ft
Height	10.0 ft
Gross takeoff weight	3,140 lbs
Empty weight	2,075 lbs
Useful load	1,065 lbs
Fuel capacity	90 gal
Seating capacity	4-5
Baggage capacity	200 lbs
Certified ceiling	20,000 ft
Rate of climb	900 fpm
Cruise speed	130kts @ 6,000 ft
	155kts @ 20,000 ft @ 78% power
Max range	1,120 nm (no reserve) @ 55% power
Fuel consumption	15.6 gph @ 78% power
Stall, gear down	49 kts
Takeoff roll (land)	880 ft @ gross weight
Landing roll (land)	475 ft
Takeoff (water)	1,250 ft @ gross weight
Landing (water)	600 ft

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water rudder checked for proper stowage, elevator trim in the green, takeoff flaps and we were on our way at full throttle. Rpm registered 2,680 and manifold pressure read 37 inches.

Power was then reduced to 2,300 rpm and 28 inches for the climb at 85 KIAS. Boost pump off and flaps retracted. We were just under the advertised 900-foot-per-minute rate of climb, so the brochure number of 25 minutes to 20,000 feet seemed doable.

Once trimmed for cruise flight, the aircraft is very stable. Flying hands off, any slight wing drop can be corrected with a touch of rudder. With the engine and prop behind us, the sound level was quite acceptable.

As we circled a lake, checking for wind direction and obstacles before making a water landing, I asked company Vice President Bruce Rivard (Armand's son) about the aircraft's alleged tendency to porpoise (the sometimes violent pitching up and down of the nose) on the water.

"If it happens," he answered, "it's usually with our Buccaneer model, which isn't as long as the Seafury, therefore more short-coupled. It results from poor piloting technique, not keeping enough back pressure. Once it starts, the pilot's reactions are always behind the airplane, exacerbating the oscillations. So the best thing to do is add power and fly out of it or stabilize the controls and land. But I've never heard of a Seafury getting into a porpoise."

STEP RIGHT IN: *The Turbo Seafury's large cargo door affords easy entry and exit for passengers.*

As Rivard set up for a water landing, he intoned aloud the mantra of every amphibian pilot: "This is a water landing. Gear is up. Water rudder up." The fuel boost pump was then turned on, flaps lowered, mixture full rich and prop full fine in case a go-around became necessary.

At this point it's germane to mention a quirk of the Lake planes that is a little startling at first. Because of the pusher prop and high thrust line over the elevators, power applications have the opposite effect on pitch compared to more conventional aircraft. Add power and the nose drops; reduce power and the nose

pitches up. In the case of the Lake, this is actually beneficial for glassy water landings.

As we touched the water, the waves were at about six to 10 inches. The staccato thumping on the hull loudly announced our arrival. Rivard immediately went into a sharp turn, throwing me against the door with centrifugal force, as he brought in power to keep us on step. After we completed our U-turn, he pulled off the power and we settled into displacement. Water rudder lowered, we approached the shore for a ramping maneuver.

While still in deep enough water, the gear was lowered and the water rudder was stowed. When the wings started rocking we knew we had found the bottom. Power up to keep it rolling through any fish nests or soft spots and we were soon climbing up on dry land. Nothing to it.

Taxiing back into the water, Rivard raised the gear and prepared to demonstrate a circular takeoff. This is a technique that is used to get off the water on a very small lake. Starting near the shore, full power soon brought us up on step at about 30 knots. We immediately went into a hard turn, the acceleration climbing slowly, offset by the centrifugal force.

Doing a complete circle, we arrived at flying speed just as we reached our original starting point, and lifted off. Try that in a floatplane.

Back to Winter Haven for a land landing. Again the mantra. "This is a land landing. The gear is down." Obviously, a water landing with the gear down is not very pleasant. Conversely, landings on a concrete runway with the gear up do surprisingly little damage. A new keel strip is usually all that's required. That can be measured in dollars, whereas repair to the ego is difficult to assess, especially if your buddies are watching from the airport restaurant.

Lake amphibians of all stripes also serve in the commercial and governmental arenas, a testament to their rugged construction, reliability and service support. You'll find them flying for the Florida Marine Patrol, Peruvian Coast Guard, National Park Service and Civil Air Patrol, to name a few. They are also used extensively for power-line patrol, marine-pollution patrol and wild-life observation.

If you have to ask. . .

Ah yes, the price.

Turbo Seafurys are delivered fully equipped with an impressive avionics suite, including GPS. You get just about everything you need except a heater, aileron trim and a standby alternator. At the published price of $745,500, it's in the Beech Bonanza range, but you're going to have tons more fun with it. Payments are 35% down, 35% at green aircraft rollout (ready for avionics) and 30% on delivery. Training is extra. Lead time is six months.

So think about taking your new flying boat to the Bahamas. Hit the hot spots on several islands and be back home in a few days instead of the couple of weeks you'd spend on a yacht. Jimmy Buffet does. Or, leave the cell phone at home, fly to a secluded lake or lagoon and break out the fishing pole.

What price can you place on well-earned rest, relaxation and enjoyment?