FLIGHT TEST REPORT – Storm Rally

Flight Test Date: May 31, 2008 Location: Stanford Int'l Airport (KSFB)
Flight Test Duration: 1.0 hrs Wx: CAVU w/scattered clouds
Pilot: Phil McCoy

GENERAL

The aircraft is a high-wing, composite LSA, manufactured in Italy. Performance and specifications can be found @ www.aireliteaviation.com. First impression is that, unlike the Paradise P-1, or Tecnam, this is a *very* good looking airplane with nice lines—not boxy. Good looking airplanes usually fly good and the Rally is no exception.

EXTERIOR

On walk-around, you immediately notice that the finish looks good. The main gear is spring steel. Wheel pants are removable. It sports a 3-bladed, ground adjustable prop. Elevator has a large trim plane on the right elevator. Access to the Rotax 912 UL-S is excellent with both left and right access panels. It takes a coin or screw driver to release the dzus screws. The gel-coat finish looks like it will withstand the elements well.

Fuel tanks are integrated into the composite wings and require a ladder to access the fillers. Aside from the electric fuel indicator gauges, there is no visual fuel level indicator inside the cockpit.

INTERIOR

Doors are large with two-point latches and open in a "gull-wing" fashion supported by gas struts. The plane can be flown up to 60 kts with the doors open.

The "Leather Touch" seats are extremely comfortable and the throttle, choke and flap controls are conveniently located in the console. The "T-handle" throttle is a nice touch, and one feels as though they were sitting in a fancy Italian sports car. The stick incorporates the push-to-talk and electric trim switch. All control surfaces are push-rod controlled—something found only in larger, high performance aircraft like Moonies.

The seats appear to be leather or comparable with 4-point harnesses. The seats are internally adjustable in flight. Like other 4-point harnesses, movement is very restricted when fully "buckled down." There is a spacious baggage compartment (16 cu. ft.) capable of accommodating a set of golf clubs, shotguns/rifles, or fishing rods. It has a 100 lb capacity.

INSTRUMENT PANEL/AVIONICS

The instrument panel has a nice, modular design and should be able to accommodate any avionics configuration desired. The only heading reference in this aircraft was a magnetic compass. However, there is room for a horizon and DG or EFIS. A full complement of steam engine gauges filled the right-side panel. The flap position indicator switch and lights are located on the center console.

The aircraft includes a cabin heater. The only cabin fresh air ventilation are in the door windows.

TAXI/TAKE-OFF

Taxi is routine in that the plane has nose-gear steering and differential braking (on both sides). Brakes are effective. The aircraft can be taxied with the doors open. Visibility is good. Run-up is simple and comparable to most LSAs. Flaps are set to 20^{o} for take-off. Doors are very easy to close and latch. It isn't necessary to slam the doors due to good fit and alignment of the latches.

Take-off roll is short and the airplane lifts off with light back pressure on the stick. Climb out @ 60 kts will yield a climb rate of 800-1000 fpm. Visibility during climb is good. The door windows are positioned for good downward as well as lateral visibility. Controls are light with just a little bit of a buffer to prevent over-control. Flaps retract without major changes in attitude. Transition to cruise is easy and the aircraft trims out nicely.

CRUISE/LANDING

It was approximately 85^{o} F with scattered clouds, so the ride was typically bumpy. In that respect, the aircraft demonstrates stability that is much like a C-150 or 172. This makes it a "comparable" aircraft. Anyone used to a Cessna will be very comfortable with the Rally. The big difference is that the Rally is faster. At 5200 rpm, it cruised at 125 mph on 5 gph.

Slow flight is stable and pitch angles are good. The airplane doesn't really "stall," but instead, gives a slight warning buffet and then simply mushes at about 500 fpm. If you kick rudder to try to enter a spin, the airplane simply continues to mush and turn. The plane is comfortable in flight. Again visibility is good.

Like Moonies and other composite aircraft, the Rally doesn't like to go down and slow down at the same time. As a result, it is necessary to stay ahead of the plane during descent to pattern altitude and throughout the landing phases.

The Fowler 4-position flaps are effective. The aircraft side-slips very nicely with no protest or shudders. Airspeed control is key to a good landing in this plane and on all three landings, I was always "hot" and ended up flying the plane on or dropping the plane in (the good news is that 1) the gear is rugged and takes hard landings, 2) when you drop it in, the plane tends to "stick" the landing without bouncing much, if at all. Fortunately, the brakes are quite effective.

In comparison to other similar LSAs the Rally is refreshing to fly. It's fast, fuel-efficient, comfortable and flies as good as it looks.