N16AV Notes, Cautions, and Warnings

WARNING – This aircraft uses an electrically-dependent ignition system. With any electrical failure, reduce electrical load and land as soon as possible.

WARNING: Takeoff and land with both boost pumps on. After takeoff, either boost pump may be turned off.

WARNING: Protect the Nylaflow brake lines from UV exposure and radiant heat from the brake rotors. When changing-out Nylaflow and fittings, use inserts and new caps to prevent leaks. Nylaflow is reliable if it is used properly

WARNING: Unlatch the (starboard) aux canopy latch before landing on or off airport. If there is trouble closing the canopy, insure the aux latch is not restricting closure.

CAUTION – Insure the 25 lb weight is hung in the nose gear when parked on three wheels with the cockpit empty. If the nose inadvertently rises more than a few inches, a tipback can happen quickly which will damage wheel pants and prop. Even with the 25 lb weight, use care to avoid a tipback.

CAUTION - When the aircraft is parked on three wheels pointed into a strong wind, the wind can lift the canard and cause a tipback. Parking the airplane on an upslope will also makes the aircraft easier to tipback.

CAUTION: The manual nose gear mechanism must be either fully extended over-center or fully retracted. If weight is placed on the nose in any other position, it can strip the gear in the mechanism. The gear can be reversed for one more usage.

CAUTION: For safe stall behavior, this aircraft requires 16 lbs. of ballast placed ahead of the rudder pedals with a 225 lb. pilot. This gives a calculated CG of 99.79” and adequate nose-bob warning. If the pilot is lighter, ballast accordingly, or if a more-aft CG is desired, carefully test the stall characteristics at altitude.

CAUTION: To prevent nose gear damage, avoid taxiing into potholes or ground-point depressions on the ramp.

CAUTION: Keep the swiveling nose gear adjusted so that that a hard blow with the fist against the tire does not freely deflect the tire, otherwise, the nose gear may shimmy and destroy the nose gear. The nose strut is properly rigged when the NG pivot shaft tilts aft at the top when loaded.

CAUTION: Change brake fluid every two years without fail. Old brake fluid absorbs moisture which lowers the boiling point of the fluid, raises the risk of brake fading, and contributes to caliper corrosion. Bottom-filling of brake lines is recommended. Suction old fluid out of the reservoirs with a large syringe and pump in new fluid at the brake caliper until fluid appears clean.

CAUTION: There is no warning of an unlocked canopy in this aircraft. Insure that the canopy emergency catch is bent so that it engages when the canopy is lifted.

CAUTION: Leaning during ground operations is recommended, however, lean so that if the throttle is inadvertently advanced for takeoff with the engine leaned, the engine will cough.

CAUTION: In the event of alternator failure, lowest current drain will be achieved by selecting E-bus power, then turn off the master switch. While on E-bus power, selectively turn off any E-bus-powered equipment that is not needed (i.e., com radio, transponder, Dynon D-10A, one fuel pump). Turn off Lightspeed Ignition #2 to save the backup battery for last use.

NOTE: Before removing fuel tank caps for refueling, attach the fueling ground wire to the step. The step is bonded to each fuel cap ring via internal wiring.

NOTE:: For normal operation, maintain Ignition 2 Pwr Select in the "aux batt" position. This checks the condition of the aux battery. Before takeoff and periodically, test aux battery voltage.

NOTE: Lightspeed ignition #1 is powered directly from the main battery. Ignition #2 is normally powered from the aux battery, each through its own switch. If alternator failure occurs, reduce any other electrical load and turn off one igntion (normally turn off #2) until the main battery is exhausted, then turn on ignition #2

NOTE: Gravity fuel flow (i.e., both boost pumps off) has been tested at 7500' MSL and 2400 RPM, and at 3000' MSL at 2200 RPM.

NOTE: Spare fuses are stored in a red bag in the right strake hole.

NOTE: If the fuel valve begins to bind, disassemble and lube the spool with a tiny smear of Fuel Lube. If too much Fuel Lube is used, bits of it can lodge in the gascolator screen (where it will not desolve!).

NOTE: Tire pressures are 50# main wheels, 65# nose gear.

NOTE: This aircraft uses DOT3/4 brake fluid and EPDM o-rings in brake hardware.

NOTE: The Dynon D-10A EFIS and uMonitor are powered via the E-bus and will indicate approximately one volt less than battery voltage because of loss in the E-bus diode. The aux battery voltage meter reads actual aux battery voltage.

NOTE: Water is seldom found in the tank or gascolator drains of composite airplanes but if any water is found in the tank drains, then also check the gascolator for water.

NOTE: With the Ellison TBI, the highest RPM is normally obtained by retarding the throttle slightly off of wide-open-throttle (approximately 1/4").

NOTE: This Ellison carburetor set-up exhibits a slight engine surge at medium RPM using very lean mixtures. If bothersome, slightly richen the mixture.

NOTE: For instrument access: remove the canard cover, remove two long pins securing the instrument cover, remove instrument cover and disconnect the connector for the cockpit flood lights.

NOTE: To remove the canard, remove the instrument cover as described above, remove the footwell access hatch/cover, disconnect the elevator control rod quick-disconnect (starboard side), loosen two screws holding the trim spring wires in the trim mechanism (port side), disconnect Dynon remote compass sensor on the canard, disconnect antennas in the canard, unscrew & remove two screws through the canard incidence-setting tabs, unbolt the canard lift tabs, lift the canard up and out.

NOTE: The fuel vents crossover. The left fuel tank is vented under the right strake. The right fuel tank is vented under the left strake. Preflight the vent tubes for mud-daubber wasp blockage.

NOTE: Use of mogas/auto fuel is not recommended. Mogas formulations are not uniform and mogas left in tanks may soften the tank epoxy.