

*Sonex Aircraft, LLC* 511 Aviation Rd. Oshkosh, WI 54902 (920) 231-8297 Fax: 920-426-8333 www.SonexAircraft.com

## GROSS WEIGHT ADVISORY (LSA COMPLIANCE AND SAFETY)

Notice to all Sonex Aircraft builders: exceeding the max gross weight published for your Sonex Aircraft can have many negative consequences, including the disqualification of the aircraft as a Light Sport Aircraft (LSA). Anyone considering an increase in their aircraft's gross weight due to modifications to the aircraft, the use of alternative engines, or a desire to increase useful load, should take notice of the following important considerations:

The Sonex and Waiex have a design gross weight of 1150 pounds if powered by a 120 horsepower engine and an 1100 pound gross weight if powered by an 80 horsepower engine. These gross weights are based on power loading as well as wing loading. Aircraft powered by the 120 hp Jabiru 3300 have the power-loading margin to carry an additional 50 pounds and still retain the climb performance we seek, without exceeding the wing loading requirements for these aircraft to be Light Sport compliant. The Onex also has a gross weight limit (950 lbs) that matches the aircraft's wing loading to keep the aircraft LSA compliant.

Under no circumstances do we endorse licensing the aircraft above our published limits. Any Sonex Aircraft licensed above those limits is not Light Sport (LSA) compliant as the wing loading exceeds the allowable wing loading for a Light Sport aircraft. Sonex Aircraft licensed above our published weights can only be flown by a pilot who holds a Private Pilot license with a current 3rd class, or greater, medical regardless of the actual weight during any particular flight.

Additionally, operating at gross weights above our published limits degrades the aircraft's performance (climb rate, take-off/landing distance, stall speed, etc. may be effected) and reduces the margin of safety when G-loads are experienced. Airframe components may also see increased wear or reduced service life as they are subjected to loads for which they were not designed.

Randomly assigning a higher gross weight to any aircraft may have many unanticipated implications and is never an acceptable "fix" for an aircraft that has been made heavy through builder modifications.