Amphibian aircraft LA-8 is designed and made in accordance with the FAR-23 (CS-23). It can be operated with one or two pilots and carry six to seven passengers. It is a monoplane with high fixed wing and three-point chassis with a forward support. Stability on water is provided with underwing floats. The entrance to the aircraft is in back part of a fuselage with a top-opening entrance hatch (aperture of 1.2 x 1.8 m) and ladder. Lateral emergency exits are located on the right and on the left, at the level of the first row of seats. Additional hatch is situated at the front row level, opening up for an exit to the top of the fuselage. The aircraft has composite airframe (fiberglass with epoxy or epoxy-ether binding). Internal metal knots and details are made of aluminum alloys and steel with strengthened and protective covering, with external elements of the aircraft and the chassis made of corrosion-resistant steel.
AeroVolga LA-8 is offered with the following piston engines options:

- Lom Praha M337C-A V (take-off power 235 HP);
- Lycoming IO-540 (take-off power 260 HP).

The Lom Praha M337C-A V engines are equipped with supercharging and fuel injection system.

- They are mounted with two MTV-12 or Hoffman three-blade propellers, with a diameter of 1900 mm.
- Feathering blades are reversible, with constant frequency of rotation and turn regulator.

Both engines can run on automotive gasoline.

This layout allows for operational cost of the aircraft of approx. $450 USD/hour.

* (according to the standard method of calculation for USA, may vary depending on the country of operation).
The main flight instrument is a Garmin G500 MFD (or equivalent) certified for multi-engine piston aircraft. Aircraft is equipped with set of flight, navigational and radio-link equipment:

- Horizon indicator, including the use of a synthetic image of the area according to the navigation complex
- Pitot TP-156 or analogue, with heating and indication of heating failure
- Static pressure reception system with possibility for switching upon an alternative source of static pressure
- Dual flight and navigation indicators (PFD and MFD displays for both pilots)
- Engine monitor EDM-960 TWIN
- GPS/NAV/COMM system GARMIN GTN-650
- Altimeter with additional audio panel control, transponder and approach charts viewing
- Stall warning system with heated sensor
- Rear-view cameras
- 3-axis autopilot with autotrim on three channels and yaw damper is installed to increase safety of the aircraft.
- The autopilot allows operation in automatic mode according to flight plan information, using data from the navigation system.
- Additional backup devices can be installed: turn indicator, vertical speed indicator, CDI indicator, ADF indicator or G-meter (option)
- The aircraft can be equipped with removable iPad with air navigation data and navigation programs, for standard version – AirNavPro with Jeppesen Navigation Database.

* If one (1) GTN-650 is installed, then SL30 NAV/COMM (with transmitter of 10 W and receiver VOR/ILS) , or/and SL-40 (GTR 225, 10/16 W) is used as a second VHF radio.

**AVIONICS**

Garmin G500 MFD (or analogue) certified avionics display system for multi-engine piston aircraft.
SPECIAL APPLICATIONS

The design of the aircraft allows for a quick (15 minutes) transformation from a passenger to cargo version.

The medical version of the aircraft can be equipped with two places for bedridden patients and one seat for accompanying physician.

Re-equipment of the aircraft from passenger modification into aero ambulance in less than 30 minutes.

LA-8 aircraft can be equipped with non-retractable ski set allowing operation from prepared snow-covered runways, and from deep snow.

LA-8 is a yacht of the skies. It opens the vast world of five oceans!

In summer of 2018, three AeroVolga aircraft, one Borey accompanied by two LA-8 performed a flight navigating around the world along the Polar Circle over the territories of eight countries: Russia, USA, Canada, Denmark (Greenland, Faroe islands), Iceland, Norway, Sweden, Finland, and Russia. The trip took 43 days, the aircraft flew more than 20,000 km over land, seas and oceans without failure or incident.
SAFETY

LA-8 aircraft is designed to be the safest aircraft in its class. All systems surpass the mandatory requirements of fail-safe under the standards of airworthiness for the aircraft of this type. The aircraft is equipped with two propeller engines, in forward and central compartments, with an expulsion of overboard water above the floating line and anchor (with nylon cord 30 m).

LA-8 aircraft is equipped with flight navigation system which allows operating in intricate meteorological conditions.

The aircraft is designed to continue horizontal flight in case of one engine failure (with automatic feathering of the propeller of the failed engine).

For altitude control the aircraft is equipped with two pilot-static sources with heated pilot displayed on three independent indicators; reserve static source from the cabin.

For CFIT radio equipment to prevent the aircraft is equipped with radio altimeter, the course-and-glide information is displayed from two independent receivers. A video camera is used to provide rear visibility during flight and taxiing.

For relative altitude determination, GPS is used: (MSL and GND altitude) - these are two onboard systems (GTN-650).

The heated stall warning indicator located on the left wing warns about approaching of the aircraft to stall. Dangerous warning is displayed by a bright red flash light with a warning signal of intercom speaker at the same time.

The aircraft is equipped with a speed computer-analyzer which prevents the reverse activation at speed exceeding 100 km/h, and landing gear retraction at speed below 100 km/h. If necessary to retract or extend the landing gear at slow speed (for example on the water or at maintenance works) the lock should be turned off by special switch.

Each propeller is equipped with a centrifugal lock, making it impossible to shift the propeller blades to reverse at 1,400 RPM. Thus to prevent accidental reverse activation in flight there is a backup locking system.

In addition to the described systems engine controllers are equipped with breaker preventing the deliberate reverse activation by pilot.