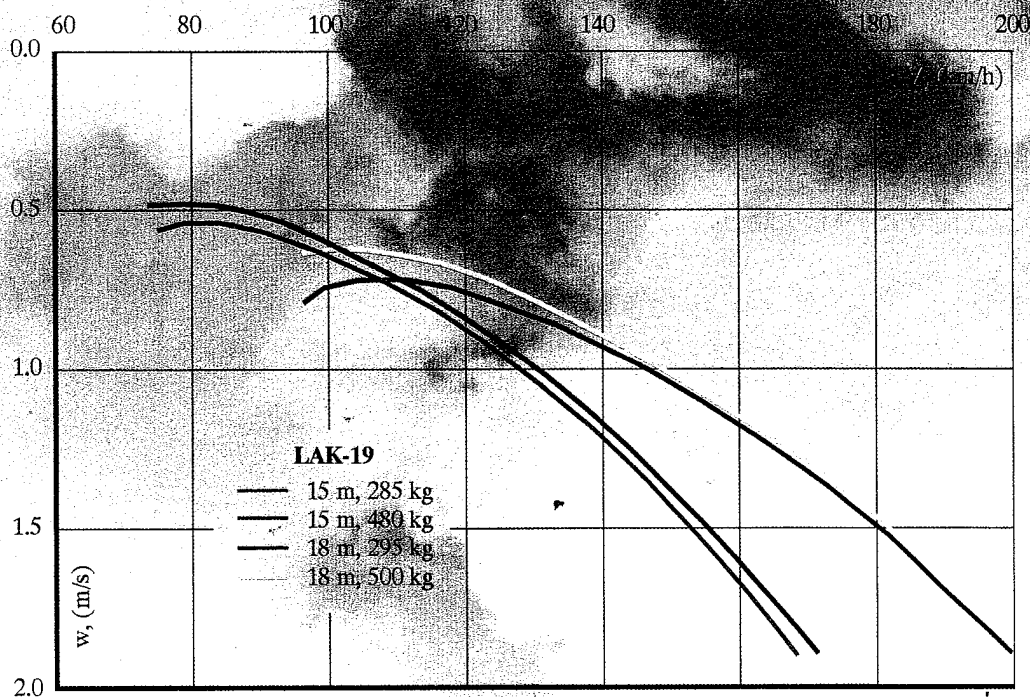


THE LAK-19 Standard Class SAILPLANE



AB „Sportinė aviacija“

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The LAK-19 is a new generation of FAI standard class sailplane (wing span 15m) with the additional wingtips with winglets for wing span 18m designed according to JAR-22 category "U" specifications. It is a midwing glider with T-tail, retractable main landing gear and 180 liter water ballast.

The sailplane is made of hybrid composite materials (kevlar, carbon, glass fibre). The wing spar is made of modern carbon rods GRAPHLITE SM315 and has double T section. The weight of each wing panel is about 60 kg. The airbrakes are situated on upper surfaces only. The wing airfoil is LAP 92-130/15 and it passes into the LAP 92-150/15 at the tip.

The cockpit is of monocoque construction. The manually control seat pan and an adjustable seat back together with optimally arranged control elements offer notable comfort on the long flights. The one piece Plexiglas canopy hinges forward. On the left side there is a sliding window with additional ventilation. The instrument panel folds up together with canopy

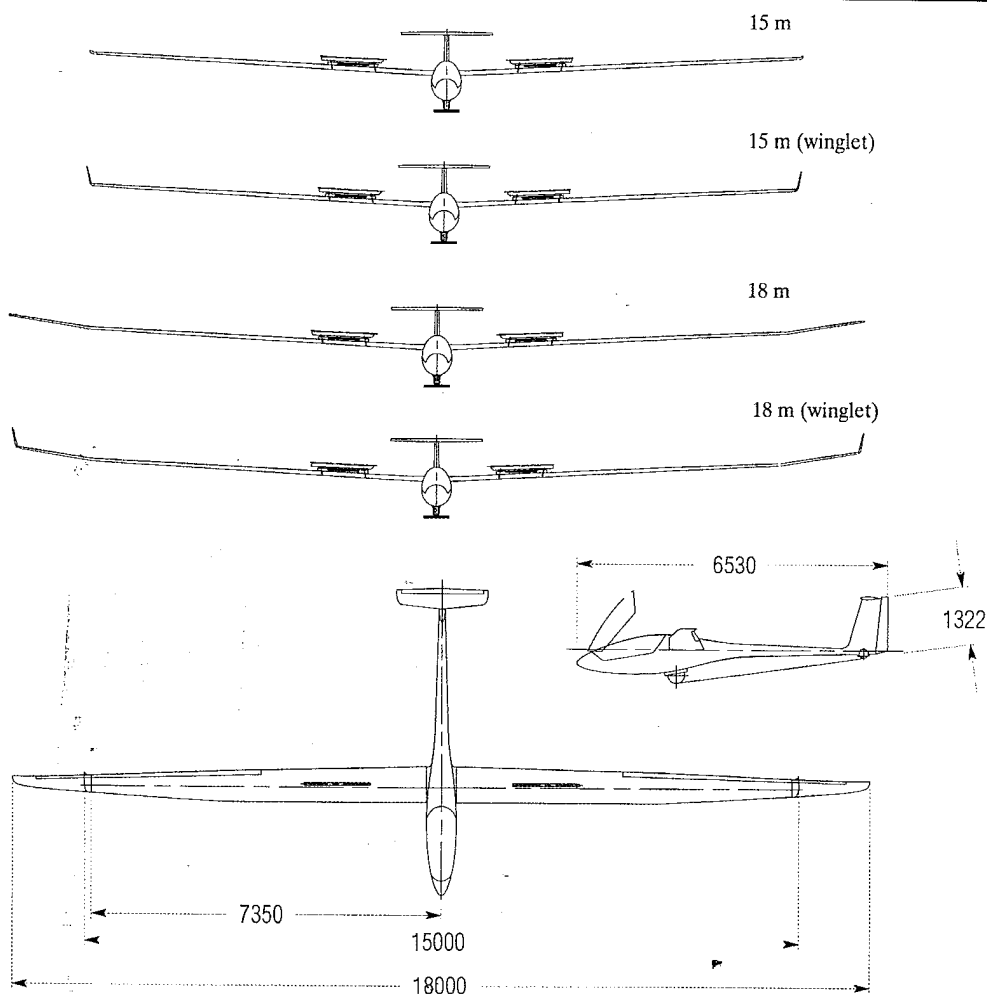
The retractable landing gear with shock absorber has 350x135mm tire. The main wheel brake is actuated via the airbrake control handle. The rudder pedals are adjustable in flight. All controls, including the water ballast system, hook up semi-automatically. The towing hook is mounted near main landing gear or in front of the pilot cockpit at the bulkhead. Wings incorporate fork-type spar tips, joined with two pins.

The T-tail (fixed stabilizer with elevator) of the LAK-19 provides stable and responsive pitch characteristics. The elevator hooks up automatically during assembly.

The glider is fitted with a fin ballast tank (capacity 8 liter) in order to adjust the optimum C.G. position.

The wing water ballast is filled in and poured out through the holes at the bottom of the wings.

Antenna is mounted in the vertical fin.



LAK-19 TECHNICAL DATA

Wing span, m	15.0	18.0
Wing aspect ratio	24.8	33
Fuselage length, m	6.53	6.53
Height, m	1.29	1.29
Empty weight approx, kg	214	220
Max gross weight, kg	480	500
Mean aerodynamic chord, m	0.626	0.598
Wing area, m ²	9.06	9.8
Wing loading, kg/m ²		
minimal	31.5	30.1
maximal	53	51
Max speed in calm air, km/h	275	275
Max speed in rough air, km/h	205	205
Min sink rate, m/s	0.53	0.49
Best L/D without ballast at 95 km/h	46	49
Best L/D with ballast at 115 km/h	47	50
limits	-2.65/+5.3	