



## SOVIET KAI-19

Drawing by Walter M. Jefferies

Slated to represent the U.S.S.R. at the World Soaring Championships in 1965, the KAI-19 is probably the most sophisticated Open Class Sailplane yet produced. With a wing span of 65.5 feet, an aspect ratio of 28.6 to 1 and a gross weight of 910 pounds, it is certainly the largest one. (Dimensions on the drawing are erroneous, they were obtained from an earlier source, though the scale is correct).

The Sailplane was designed by four U.S.S.R. engineers under the sponsorship of the Experi-

mental Sporting Aviation Bureau and constructed at the Kazan Aviation Institute.

The KAI-19 is of all metal construction. The landing gear is electrically retracted, the horizontal tail folds downward for easy trailering. The wing has a single spar, the leading edge skin is 1.2 mm thick. The skin aft of the spar location is chemically milled and tapers in thickness from 0.8 mm at the root to 0.6 mm at the tips. Two water ballast tanks of 9.75 gallons are located in each wing and 15.70 gallon tank is in the fuse-

lage. Electrically operated dump valves jettison the water ballast.

The sailplane is capable to operate at altitudes up to 45,000 feet under complex meteorological conditions for which it is equipped with oxygen, radio and a full panel for instrument flight. Electrical power is supplied by a battery with junction box, and relays. An automatic cut off system permits use of external power source.

Gross weight with water ballast is 1,215 pounds, the wing area is 150.69 square