To FAI Gliding Comission (IGC)

Proposal regarding future of the 13,5 meter Class

The purpose of the Proposal is to promote a successful competition environment in the 13,5 meter Class. In our opinion, the wing loading limit of 35 kg/m² should be discontinued.

The 13,5 meter Class should foster innovative development in self-launching, light-weight, modern, and affordable sailplanes, while maintaining the high level of strength and safety achievable with today's technology.

Light-weight (e.g. a MTOM of 350Kg or 400Kg) should not be confused with low wingloading (such as 35 kg/m²), which makes gliders behave like "Floaters" which is unsuitable for both cross-country flying and competition, and marketability of the class and its gliders. Many pilots are interested in modern, light-weight, self-launching gliders with advanced cross-country and racing capabilities. Nobody wants another class of "floaters" of the past generation of designs.

To be succesful and to not impose on the class the wing designs from the 50ties the optimized wing should have 7 - 8 m² area. (Examples are: SparrowHawk, DuckHawk, Gp14 Velo, Mini Lak, Diana2). The gliders should be equiped with engines and have safe/strong design and also allow reasonable pilot weights (the current wingloading limit barely allows pilot+parachute loads of the order of 90 Kg, and this without an engine), which requires MTOW of at least 350 kg. If we interpolate from existing FAI glider classes as far as performance and safety, MTOW should be 420kg. In the case of a 350Kg MTOW, all UL with 315 kg MTOM can participate in competition. If the rule for UL will change increasing MTOW nothing happens. In all cases it is much more than 35 kg/m².

Present 35 kg/m² wing loading is strongly political and can result in degrading of the class. Like it happened with PW5. It does not equalize performance and contrary to this theory, experiences from Sailplane Grand Prix shows that new designs suffer the most, they perform weaker with this limit. Old fasion design can fulfill the wing loading limit but it means the pilots will have to (and probably will not want to) downgrade to much slower and lower-performance glider. Equal MTOM gives better chance to fly equally performing gliders at most often used speeds.

If Gliding Society wants to see the 13,5 m Class as a viable class we suggest following conditions and limitations:

Existing conditions and limitations	Proposal	Reason
13,5 wing span	Acceptable	Light, simple and easy to handle. Easier affordable price for customers.
MAX wing loading 35 kg/m²	MTOM 350 kg	Safety. Minimum weight to make a certified and safe-to-operate glider, which can carry a pilot up to 110 kg plus parachute and have an electric propulsion system.
Electric motor with self-launching function	Acceptable	Simple to handle, as no tow planes needed during competition.
Certification basis is not specified	National Certification basis may be acceptable as well as EASA CS 22.	Safety issue. Pilots should decide on their own if they want to fly a glider that meets EASA CS 22 or a glider that meets other certification requirements (European or non European).

Competitors of the 2nd FAI 13,5 metre Class World Gliding Championship, Szatymaz, Hungary - Jun 29 - Jul 16, 2017.