PROPOSAL TO IGC PLENARY 2016
Year 1
Proposed by Italy

Proposed change in the definition FAI class 13.5 m

Premise

Last August in Lithuania were held successfully the first World Championships Gliding (WGC) class FAI 13.5 m (12 valid contest days).

In summary:
- 7 countries (Australia, France, Italy, Lithuania, Russia, Slovenia, United States);
- 12 pilots have represented their countries (initially were 18);
- 5 different aircraft were present:
- 6 Silent Electro 2, Italy, VDS Series
- 1 Silent 2 Targa, Italian, VDS Series
- 1 mini-LAK, Lithuania, prototype AG (experimental)
- 1 Sparrow-Hawk, USA, FAA prototype (experimental)
- 1 VersVS: Italy, prototype AG (experimental);
- 1 Flap Russia, USSR, prototype AG
- 1 Std Russia, USSR, AG
- 5 different manufacturers (+ 1 missing);
- 6 aircraft were equipped with electric engine "EDF"
- 3 aircraft will equip short of electric powertrain "EDF"
- 1 manufacturer ("Peszke SC") has failed to complete its prototype to participate in the WGC. This will also be equipped with electric engine.
- Any other manufacturer of aircraft for AG (except for company LAK, Lithuania) supported the FAI class 13.5 m. Rather they were detractors;
- Some national aeroclub ("NAC") have banned the participation of their athletes with various justifications and / or have not spread news about this event.

The future of the class FAI 13.5 m

Reflections

If the class FAI 13.5 m remain a copy of the FAI traditional classes, or with the same procedures in the conduct of competitions, it will not create special attraction or incentive.

By aircraft manufacturers AG we cannot expect any help.

For their construction standards, EASA just fit the requirements of the class FAI 13.5 m:
- Maximum take-off ("MTOM") 300 kg,
- 13.5 m wingspan preferably with variable profile (flap), and ballast wing autonomous takeoff ("SL" and "TMG") because it would result in a deep structural redesign and subsequent high costs for the certification in addition to normal long implementation times of / certification.

On the contrary, ULM builders they were already concretely active. For them it is an interesting opportunity, since regulations are more flexible and less binding, and therefore less expensive. Among other things, it will allow experimentation and fast developments with its modest investment.

The company "LZ Design doo", the manufacturer of the system "EDF" (Front Electric Self-launcher), It offers its electric engine to all manufacturers of aircraft and / or aircraft VDS.

If the next World Championship will be held in Poland in 2017 with the same rules of 2015, it is likely that the participation of aircraft "experimental" (as "VersVS" and "mini-LAK") disincentives entries of international competitors.

The success of a class depends on several factors, which act on the final motivation of its “customers”. Some examples:
- Fun,
- Freedom of use (autonomous take-off, "SL" and "TMG"),
- Cost vs. performance,
- Ease of flying,
- Ease of assembly of the aircraft alone all as part of security.

The proposal
With the intention of giving more attractive to the class, but above all to create a new class of users, we propose the following solution:

a) define the class FAI 13.5 m as follows:
- Wingspan of 13.5 m,
- Wing loading: up to 35 kg m,
- Aircraft takeoff autonomous ("Self-Launcher" and "TMG"),
- Exclusively with electric motor;
b) to allow the use in the race of a predetermined amount of "electricity", the value of which would be established on a daily basis according to weather conditions and the type of tasks;
b.1) the use of the '' power 'pre must serve to:
- self takeoff,
- Gain altitude and / or increase the glide of the aircraft during the task;
b.2) the use of '"electricity" in addition to the pre-determined amount immediately "bush", or merely the calculation of the points on "Distance" performed.

NOTE - This new definition can be applied to formulas for the calculation of scores for the all competitions of the FAI:
- Speed ("RT Racing Task" / "AAT, Assigned Area Task"),
- Grand-Prix ("SGP"),
- Games Air ("WAG").

The advantages
With this new class definition FAI 13.5 m open up new possibilities:
1) The organizers of FAI competitions will no longer need to have:
- Airport facilities,
- Aircraft towing;
2) The organizers of FAI event can perform individual tests with takeoffs and
landings:

- At the same location (eg traditional races)
- In different locations (eg for cycling as the "Tour of Italy"), or to provide for eg tests with intermediate tests as flat stages and mountain, in stopwatch pure, etc .;
3) For the Media
- It will be able to determine timing, dimensions and locations where to overflights during their testing and / or preset times of arrival;

Date / Urgency
It would be appropriate to implement the changes to the regulations FAI class 13.5 m ("Year-1 Proposal ") so that they can use during the upcoming World Championship Gliding (2017, Poland) for which we take the risk of having a lack of interest and shortage of entries.

Test event
The Aero Club of Italy is ready for a test competition in 2016 according to the principles above exposed through their local flying clubs (AeC ACAO, AeC PAVULLO) and to give detailed report to the Committees of the FAI IGC. This event will verify the feasibility and convenience of this new concept.

For the Aeroclub of Italy
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