

## **EUROPEAN REGULATIONS AFFECTING GLIDERS / SAILPLANES**

*A Paper submitted by the European Gliding Union (EGU) proposing amendments to the draft revision to Annex II of EU Regulation 1592/2002, currently with the European Commission*

31 May 2005

### **1. Background**

Microlight powered aircraft have become very popular in Europe over several years now, especially in certain EU countries where this activity is regulated loosely in terms of airworthiness, pilot licensing, airfields etc. In these countries the number of microlight pilots has increased rapidly and a small industry manufacturing aeroplanes and equipment has been created.

In principle, a similar trend for light and ultra light gliders was to be expected for the benefit of the gliding movement. Ultra-light gliders not certified under Certification Specification (CS) 22 (formerly JAR 22) have indeed been designed, developed and manufactured in the last few years. Unfortunately this development is now blocked by the new European regulations (1592/2002 and its Annex II).

### **2. Regulation 1592 /2002 and its Annex II**

EASA was established as an agency in 2002 by European Regulation 1592. This Regulation also set out essential requirements and implementing rules for aircraft (and aeroplanes) airworthiness certification, known as 'Part 21'. Exemptions to the Regulation were set out in Annex II to 1592, and these exemptions resulted, inter alia, in the following being exempt from European regulation:

- (a) Gliders below 80kg (single seat) or 100kg (two seat) 'structural mass', including foot launched gliders.
- (b) Aeroplanes (i.e. powered aircraft) below 300 kg Maximum Take Off Mass – MTOM - (single seater) or below 450 kg MTOM (two seater). Such aircraft are generally referred to in the General Aviation community as microlight aircraft / aeroplanes but the term 'microlight' is not a term used in Regulation 1592, Annex II, nor is it defined anywhere.

### **3. Consequences**

As a consequence, only hang gliders, para-gliders, some special very light gliders and a limited number of historic or vintage gliders are exempted from European regulation, i.e. remain under national regulation. Light and ultra light gliders above 80 kg structural mass (single seat) or 100 kg (two seat) have to be certified by EASA. However, the Certification Specification applied to gliders by EASA is CS-22 (ex JAR 22), which does not provide for gliders in the ultra-light glider category. Light

and ultra light gliders above the 80/100 kg structural mass are thus no longer allowed to fly in Europe because they have no longer any legal existence.

Manufacturers have therefore either cancelled their projects or modified the designs of light gliders to include engines, thereby creating self-launching gliders. But instead of being classified as gliders, they are being treated, de facto, as aeroplanes and have become part of the microlight community and not the conventional gliding community.

These aircraft are in reality gliders (or sailplanes), and are not microlight aeroplanes. They are designed to soar and glide without the engine being operated. The introduction of engines into these ultra light gliders – with the associated weight penalties – has arisen as a means of achieving exemption from EU regulations under the current Annex II, whereby aeroplanes (powered aircraft) have a higher weight threshold to qualify for exemption.

Further, there is no common sense logic in terms of risk assessment (particularly the risk to unconnected third parties) as to why microlight aeroplanes, weighing a maximum of either 300 kg (single seat) or 450 kg (two seat), should be exempt from EU regulation, whilst gliders which are only up to a significantly lower (structural mass) weight limit (80 / 100 kg) should be exempt.

EGU's concern at this development is twofold:

1. The EU regulation has inadvertently created a distortion in the marketplace for gliders by forcing manufacturers of non-CS 22 compliant gliders into either stopping design and production, or introducing engines for self-launching of these aircraft, thus allowing them to be treated as exempt from EU regulation by being classified as a microlight aeroplanes.
2. The FAI officially recognised sporting category of ultra-light sailplanes (up to 220 kg MTOM) is being compromised by the anomalies created by the new regulations outlined above, thus threatening an existing sporting class and creating a distortion of sporting competition. The effect will be for non-European countries to be able to compete in a class which European countries will not be able to.

#### **4. EGU Proposals**

The EGU proposals are

1. to request the introduction of an additional exemption in the revised Annex II to Regulation 1592 / 2002, for:

“Light sailplanes and powered light sailplanes with a Maximum Take Off Mass (MTOM) of no more than 300/315\* kg for a single seater and no more than 450/472.5\* kg for a two seater.”

\* 5% higher MTOM if the sailplane is equipped with an airframe mounted total recovery parachute system

2. to request an amendment to paragraph (f) in the exemptions of 1592/2002 as follows:

“ultra light ‘gliders’ with a maximum structural mass of less than 80 kg single-seater or 100 kg two-seater, including those which are foot launched; or a maximum empty mass of 120 kg single-seater or 140 kg two-seater including those which are foot launched”

The reason for the second proposal above is that the introduction of the criteria of empty mass above the structural mass threshold provides greater flexibility in design of ultra light ‘gliders’ without significantly altering the intent of the regulatory framework.

Since EASA has proposed in January 2005 to amend Regulation 1592 in order to take into account the latest developments about Licensing (of pilots) and Operations, a modified version of Annex II is already on the table of the European Commission.

## **5. Impact of EGU proposal**

The effect of such an amendment would be to allow the development of ultra-light gliders without regulation by EASA, but potentially – but not necessarily - regulated by each member state as to airworthiness, pilot training and licensing, and operations.

EGU believes therefore that the gliding community should embrace this new sector of ultra-light gliders (up to 300/315\* kg single seat, 450/472.5\* kg two seat), primarily because:

1. the gliding community can provide an established environment for appropriate and specific training of new (glider) pilots, and a safety framework.
2. the gliding community can provide a structure within which the ultra-light gliding community can flourish in club environments.
3. Such an amendment would re-establish the design and manufacturing of non-CS22 conforming ultra-light, non-powered, gliders / sailplanes, a market which has been threatened with extinction in Europe as a result of the current Annex II categorisation.

## **6. Diagram**

A series of diagrams is enclosed with this paper, to visually convey the issues addressed.

Roland Stuck  
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