

## Comment Response Document to Special Condition SC-A22.1-01 Increase of maximum mass for sailplanes and powered sailplanes

<b>Commentor:</b>	CAA UK
<b>Comment:</b>	<p>The purpose of the proposed weight increases is not clear. It is noted that the weight increase for powered sailplanes from 850 kg to 900 kg is approximately 6% but the weight increase for sailplanes from 750 kg to 850 kg represents a weight increase of approximately 13%. This is a significant increase for which no apparent justification has been made. Whilst a 6% increase in weight may be acceptable a 13% weight increase could possibly mean that existing certification assumptions are invalidated.</p> <p>Justification: For clarity, the purposes for which the weight increases are being sought should be clearly defined and explained including how compliance with the requirements of CS-22 will be maintained.</p>
<b>Response:</b>	<p>Noted</p> <p>The requirements of CS-22/JAR-22 are maintained and full compliance for the higher MTOM has to be shown.</p> <p>For sailplanes the change from 750 kg to 850 kg MTOM seems to be quite significant but it is already accepted that powered sailplanes are operated with removed engine with the higher MTOM. The current certification basis is therefore already used for the identical operation.</p>
<b>Commentor:</b>	Austro Control GmbH
<b>Comment</b>	<p>It is common, that the mass increase in sailplanes may come from the increase in water ballast, which may be dumped. This is not considered in the explanation. It is not entire clear what exact "mass increase" to 900 means.</p> <p>There is a difference if it only water ballast or mass in the wings or fuselage. This has also an impact on the crash scenario were the mass is located.</p> <p>In any case, the persons on board should be equivalent protected as intended in CS22 with 850 kg, this should be demonstrated during the certification.</p> <p>My proposal would be to add this into the SC.</p> <p><b>Example: Equivalent occupant protected as intended in CS22 with 850 kg should be demonstrated to the 900kg in the worst case emergency landing loading condition</b></p> <p>I cannot find the arguments that the existing rule CS22 which is proposed has the same safety level.</p> <p>The intent of the last item has not been fully understood. Which SC or ELOS are referred to, examples should be listed. If deviations from the SC are allowed, they should be clearly addressed</p>
<b>Response:</b>	<p>Noted</p> <p>The requirements of CS-22/JAR-22 are maintained and full compliance for the higher MTOM has to be shown. As stated in the EASA position the most important issue that should be addressed is the higher mass in Emergency Landing Conditions to ensure equivalent occupant protection.</p> <p>Also the last item should ensure that the SC is not applied together with ELOS or SC affecting occupant protection. It is understood that this intention has to be stated more clearly and examples of not compatible SC will be added.</p>