Comment-Response Document
APM30 third seat Consultation

Commentor:	CAA-UK
Para:	Various
Comment:	This is a significant departure from the applicability parameters for VLA. The justification only considers the emergency landing dynamic conditions and does not consider why the VLA certification specification was limited to two seats in the first place. Since that information is not included, the justification does not address the original reasons for the limitation, and so the justification is not complete. CS-23 is applicable for aircraft of more than two seats, it is suggested that CS-23 should be applied in this case.
Response:	The CS VLA has been issued to provide specific requirements for very light, simple design aircraft with an arbitrary seats limitation of two. This VLA requirement is based mainly on limitations on maximum certificated take-off weight and stalling speed to ensure an equivalent of safety versus CS 23 requirements in respect to emergency landing dynamic configuration. It is practicable to develop a simple design three seater within the CS VLA concept (kinetic energy). Therefore, the team considers that the CS VLA can apply to the APM30 certification.

Commentor:	ACG
Para:	Various
Comment:	1.The change to three seats is an important change with respect to passenger safety. 2.Related to the payload issue it is important that the minimum payload can be ensured during production, not only for the certified single peace. 3.The Following Items of CS 23 should be in addition considered: • 23.562 • 23.791 • 23.803 • 23.807 • 23.811 • CS22 engines and propellers should be no longer accepted as for night VFR Operations, CS-E and P will be OK • 23.X1413 4.The Item of equal treatment for current production airplanes / Industry, with have to use CS23 up to now should be also considered, but this is not a technical comment but should be clearly addressed and argumented by EASA.
Response:	1.For this comment please refer to the previous CAA-UK comment. 2.The team does not consider this comment as a certification comment. 3.The team has the following comments : • CS 23.562 concerns the emergency landing dynamic conditions. The APM30 complies with the CS-VLA limitations, there is not any increased amount of kinetic energy compared to other CS VLA aircraft. Therefore, the team considers that the CS-VLA concept remains valid as en equivalent of safety versus CS 23 requirements in respect to emergency landing dynamic configuration. Therefore the CS 23.562 requirement is not applicable to the APM30 certification. • CS 23.791 concerns passenger information signs. In the APM30, the pilot can easily observe the others occupant's seats. Therefore CS 23.791 is not applicable to the APM30 certification. • CS 23.803 concerns emergency evacuation for commuter category aeroplanes.

	As the APM30 is not a commuter aircraft, the CS 23.803 is not applicable to the APM30 certification. • CS 23.807 concerns emergency exits. The CS VLA.807 applies to the APM30. The team considers that the CS VLA.783 and VLA.807 requirements have a noticeably same level of safety than the CS 23.807. So the team considers that the CS23.807 is not applicable to the APM30 certification. • CS 23.811 concerns emergency exit marking. The team accepts the comment and the following Special Condition is added : - SCVLA.811 : In addition to the CS VLA requirements, the CS23.811(a) requirement applies : " Each emergency exit and external door in the passenger compartment must be externally marked and readily identifiable from outside the aeroplane by – (1) A conspicuous visual identification scheme; and (2) A permanent decal or placard on or adjacent to the emergency exit which shows the means of opening the emergency exit, including any special instructions, if applicable." • Concerning engine and propeller certification, the APM30 will be day and night VFR certified. By this way, as stated in the CRI A3, engine and propeller installed will be CS-P and E approved or equivalent level of safety. The APM30 CRI A2 has no intent to determine if CS 22 engine and propeller should be or not accepted for a 3 seats CS VLA only day VFR certified aeroplane. • The 23.X1413 requirement does not exist longer on the CS 23 requirement. The JAR 23.X1413 requirement concerning safety belts and harnesses has been included to the CS 23.785 (b). The same requirement is found with CS VLA.785 (b). Therefore the previous JAR 23.X1413 requirement is taken into account the APM30 certification according CS VLA.785 (b). 4.This comment is not a certification comment.

Commentor:	Apex Aircraft
Para:	Various
Comment:	More seats should indeed be allowed. The limit to two is arbitrary, without substantiation. Therefore, this change should be made to CS-VLA, not to the certification basis of the APM 30. To create a Special Condition is to evade the responsibility to correct the original regulation, in the CS and in harmonized nations. The Stall speed limit protects those on board, and the mass limit protects those third parties not on board. As structures and power units become lighter, more useful load will become available for the humans portion, in theory approaching 750 kg. If the current limitation to two occupants is caused by sensitivity to injuries and deaths as interpreted by the public; as in "two killed in small aircraft crash" versus "three (or four, or family, or six) killed in small aircraft crash", then my comment is different. If this is the reason, then no increase above two seats should ever be made to this class. I completely disagree with this reason, however: it is wholly acceptable to me as a pilot, as a head-of-family, and as a European taxpayer, to substantially deregulate all air vehicles which are used only for non-payed uses. The insurance companies act as the overseeing agencies for such operations, and the use of taxpayer funds for this field is ineffective.
Response:	This positive comment in favour of this CRI reflects the need to do some arrangements to the CS-VLA requirement to provide more flexibility and operational possibilities for VLA design.