

APPENDIX 3 -3:

Draft Proposal to Amend EASA Regulation EC1592/2002-----
Article 3: Definitions

(c) "product" shall mean an aircraft, engine or propeller. In the case of an Unmanned Aerial Vehicle (UAV) system, the aircraft "product" includes any remote equipment forming part of the UAV system that could prejudice safe flight and safe recovery, including launch equipment, the control station and any data link essential for control of the aircraft. A UAV system element, e.g., typically, the Control Station may be certified in its own right as a product, in which case the manufacturer of the aircraft product needs to consider its safe integration;

(d) "parts and appliances" shall mean any instrument, equipment, mechanism, part, apparatus, appurtenance or accessory, including communications equipment, that is used or intended to be used in operating or controlling an aircraft in flight and is installed in or attached to ~~the aircraft a product. It includes parts of an airframe, engine or propeller;~~

Article 4 : Basic principles and applicability

1. Aircraft, including any installed or associated product, part and appliance, which are:

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Article 5: Airworthiness

1. Aircraft, including any installed or associated product, part and appliance referred to in Article 4(1) shall comply with the essential requirements for airworthiness laid down in Annex I.

2. Compliance of aircraft registered in a Member State, and of products, parts and appliances associated with or mounted thereon, shall be established in accordance with the following:

- (a)
- (b)
- (c) Each aircraft shall be issued with an individual Certificate of Airworthiness when it is shown that it conforms with the type design approved in its type-certificate and that relevant documentation, inspections and tests demonstrate that the aircraft is in condition for safe operation. This certificate of airworthiness shall remain valid as long as it is not suspended, revoked or terminated and as long as the aircraft is maintained in accordance with the essential requirements related to continuing airworthiness set out in point 1.d. of Annex I and the implementing rules referred to in paragraph 4. In the case of a UAV system, remote equipment performing a function which can prejudice safe flight and recovery of the aircraft, shall be considered part of the aircraft for the purposes of the validity of the certificate of airworthiness and shall be maintained in accordance with the essential requirements relating to continuing airworthiness.

ANNEX I: Essential Requirements For Airworthiness Referred To In Article 5

- 1.c.3. The aircraft systems, equipment and associated appliances, considered separately and in relation to each other, must be designed such that any catastrophic failure condition does not result from a single failure not shown to be extremely improbable and an inverse relationship must exist between the probability of a failure condition and the severity of its effect ~~on aircraft and its occupants~~. With respect to the single failure criterion above, it is accepted that due allowance must be made for the size and broad configuration of the aircraft and that this may prevent this single failure criterion from being met for some parts and some systems on helicopters and small aeroplanes.
- 1.c.5. Design precautions must be taken to minimise the hazards to the aircraft and occupants (where appropriate) from reasonably probable threats, both inside and external to the aircraft, including protecting against the possibility of a significant failure in, or disruption of, any aircraft appliance.
- 2.a.2. The aircraft must be safely controllable and manoeuvrable under all anticipated operating conditions including following the failure of one or, if appropriate, more propulsion systems. Due account must be taken of pilot strength, flight deck environment, pilot workload and other

human-factor considerations and of the phase of flight and its duration. In the case of a UAV system, this requirement is applicable to the remote control station.

- 2.c.2. Where appropriate, cCabin compartments must provide passengers with suitable transport conditions and adequate protection from any expected hazard arising in flight operations or resulting in emergency situations, including fire, smoke, toxic gases and rapid decompression hazards. Provisions must be made to give occupants every reasonable chance of avoiding serious injury and quickly evacuating the aircraft and to protect them from the effect of the deceleration forces in the event of an emergency landing on land or water. Clear and unambiguous signs or announcements must be provided, as necessary, to instruct occupants in appropriate safe behaviour and the location and correct use of safety equipment. Required safety equipment must be readily accessible.
- 2.c.3. Crew compartments must be arranged in order to facilitate flight operations, including means providing situational awareness, and management of any expected situation and emergencies. The environment of crew compartments must not jeopardise the crew's ability to perform their tasks and its design must be such as to avoid interference during operation and misuse of the controls. In the case of a UAV system, this requirement is applicable to the remote control station.