

#### SPECIAL CONDITION

### **Emergency Recovery Capability**

Doc. No. : SC-RPAS.ERC-01

Issue : CONSULTATION

Date : 25-04-2016

Ref. : CRI O-12

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SUBJECT : Emergency Recovery Capability

**CERTIFICATION SPECIFICATION**: None, novel System

PRIMARY GROUP / PANEL : Panel 04, Panel 1 and 3

SECONDARY GROUPE / PANEL : -

NATURE : SC

#### **SPECIAL CONDITION**

## **Emergency Recovery Capability**

This Special Condition and the related AMC & GM are applicable to any RPAS:

- for which a type certification is requested,
- for which the kinetic energy assessment in accordance with section 6 of the EASA policy E.Y013-01 results in an initial certification basis according to CS-VLA, and
- with no occupant on board.

## SC RPAS.ERC Emergency Recovery capability

- (a) The RPAS must have a recovery procedure or a flight termination system initiated through remote pilot command or through automatic means to mitigate the effects of probable critical failures with the intent to minimise the risk to third parties.
- (b) The procedure or system must function as intended within and sufficiently beyond the operating envelope under expected environmental and operating conditions.
- (c) Systems and components required for detection of critical failures, initiation or activation and proper functioning of the recovery procedure or termination system, must have adequate independency from other systems.
- (d) Systems and components must be designed and installed so that they do not cause unacceptable hazards to the aircraft and be safeguarded from interference and human errors leading to inadvertent operation.
- (e) Operating limitations, procedures, instructions and any additional information necessary for the safe operation of the aircraft must be established and provided in the flight manual.
- (f) Any information related to the procedure or system necessary for the safe operation of the aircraft including warnings, cautions and normal indications should be provided to the crew members.
- (g) Information necessary for the inspection or maintenance of the systems as well as on its limitations must be provided in the Instructions for Continued Airworthiness.
- (h) In case of any risk to ground personnel (maintenance personnel, rescue teams) appropriate warnings, placards or procedures to reduce the risk must be provided.



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### **AMC RPAS.ERC Emergency Recovery capability**

- (a) A flight termination system should reduce the impact energy and/or the impact area to reduce the risk to third parties. Total in-flight destruction of the aircraft e.g. with the use of explosives is not an acceptable means of compliance.
- (b) ASTM F2316-12, "Standard Specification for Airframe Emergency Parachutes for Light Sport Aircraft" provides acceptable means of compliance for Airframe Emergency Parachutes and their mechanical installation and functioning aspects.
- (c) Where the emergency recovery capability includes a pre-programmed course of action to reach a predefined site the conditions and dimensions of such areas must be stated in the Flight Manual.