

## **Annex IV to ED Decision 2016/022/R**

### **'AMC and GM to Annex IV (Part-CAT) — Issue 2, Amendment 8'**

The Annex to ED Decision 2014/015/R is amended as follows:

The text of the amendment is arranged to show deleted text, new or amended text as shown below:

- (a) deleted text is marked with ~~strikethrough~~;
- (b) new or amended text is highlighted in grey;
- (c) an ellipsis (...) indicates that the remaining text is unchanged in front of or following the reflected amendment.

1. AMC2 CAT.OP.MPA.105 Use of aerodromes and operating sites is deleted.
2. AMC1 CAT.OP.MPA.120 Airborne radar approaches (ARAs) for overwater operations — helicopters is deleted.
3. GM1 CAT.OP.MPA.120 Airborne radar approaches (ARAs) for overwater operations — helicopters is deleted.
4. AMC1 CAT.OP.MPA.181(b)(1) Selection of aerodromes and operating sites — helicopters is deleted.
5. AMC1 CAT.OP.MPA.181(d) Selection of aerodromes and operating sites — helicopters is deleted.
6. GM1 CAT.OP.MPA.181 Selection of aerodromes and operating sites — helicopters is amended as follows:

**GM1 CAT.OP.MPA.181 Selection of aerodromes and operating sites — helicopters**

**OFFSHORE ALTERNATES**

~~When operating offshore, any spare payload capacity should be used to carry additional fuel if it would facilitate the use of an onshore alternate aerodrome.~~

**LANDING FORECAST**

(...)

7. AMC1 CAT.OP.MPA.281 In-flight fuel management — helicopters is amended as follows:

**AMC1 CAT.OP.MPA.281 In-flight fuel management — helicopters**

**COMPLEX MOTOR-POWERED HELICOPTERS, OTHER THAN LOCAL OPERATIONS**

(...)

**(b) In-flight fuel management**

- (1) If, as a result of an in-flight fuel check, the expected fuel remaining on arrival at the destination is less than the required alternate fuel plus final reserve fuel, the commander should:

(i) divert; or

(ii) replan the flight in accordance with ~~CAT.OP.MPA.181 (d)(1)~~ SPA.HOFO.120 unless he/she considers it safer to continue to the destination.

(...)

8. AMC1 CAT.IDE.H.310 Additional requirements for helicopters operating to or from helidecks located in a hostile sea area is deleted.

9. AMC1 CAT.IDE.H.320(b) All helicopters on flight over water — ditching is amended as follows:

**AMC1 CAT.IDE.H.320(b) All helicopters on flight over water — ditching**

GENERAL

The same considerations of ~~AMC1 CAT.IDE.H.310~~ AMC1 SPA.HOFO.165(d) should apply in respect of emergency flotation equipment.

10. A new AMC1 CAT.POL.H.305(a) Operations without an assured safe forced landing capability is added:

**AMC1 CAT.POL.H.305(a) Operations without an assured safe forced landing capability**

VALIDITY OF THE RISK ASSESSMENT

The operator should periodically review and update the procedures and associated risk assessments, pertaining to the granting of the CAT.POL.H.305(a) approval, to ensure that they are adequate and remain relevant for the operation.

11. A new AMC1 CAT.POL.H.310(c)(2) and CAT.POL.H.325(c)(2) Take-off and landing is added:

**AMC1 CAT.POL.H.310(c)(2) and CAT.POL.H.325(c)(2) Take-off and landing**

FACTORS

(a) To ensure that the necessary factors are taken into account, the operator should:

- (1) use take-off and landing procedures that are appropriate to the circumstances, and that minimise the risks of collision with obstacles at the individual offshore location under the prevailing conditions; and
- (2) use the aircraft flight manual (AFM) performance data or, where such data is not available, alternative data approved by the competent authority, which show take-off and landing masses that take into account drop-down and take-off deck-edge miss, under varying conditions of pressure altitude, temperature, and wind.

(b) Replanning of offshore location take-off or landing masses during the flight should only be performed in accordance with procedures established in the operations manual (OM). These procedures should be simple and safe to carry out, with no significant increase in the crew workload during critical phases of the flight.

12. AMC1 CAT.IDE.H.145 Radio altimeters is amended as follows:

**AMC1 CAT.IDE.H.145 Radio altimeters**

AUDIO WARNING DEVICE

(a) The audio warning required in ~~CAT.IDE.H.145~~ should be a voice warning.

(b) The audio warning may be provided by a helicopter terrain awareness and warning system (HTAWS).

13. A new AMC2 CAT.IDE.H.145 Radio altimeters is added:

**AMC2 CAT.IDE.H.145 Radio altimeters**

**RADIO ALTIMETER DISPLAY**

The radio altimeter should be of an analogue type display presentation that requires minimal interpretation for both an instantaneous impression of absolute height and rate of change of height.

14. A new GM1 CAT.IDE.H.145 Radio altimeters is added:

**GM1 CAT.IDE.H.145 Radio altimeters**

**AUDIO-VOICE-ALERTING DEVICE**

- (a) To be effective, the voice warning alert should be distinguishable from other warnings and should contain a clear and concise voice message.
- (b) The warning format should meet the following conditions:
  - (1) the warning should be unique (i.e. voice);
  - (2) it should not be inhibited by any other audio warnings, except by higher priority alerts such as helicopter terrain awareness and warning system (HTAWS); and
  - (3) the urgency of the warning should be adequate to draw attention but not such as to cause undue annoyance during deliberate descents through the datum height.
- (c) The criteria above can be satisfactorily met if the warning format incorporates all of the following features:
  - (1) a unique tone should precede the voice message; a further tone after the voice may enhance uniqueness and attract more attention without causing undue annoyance;
  - (2) the perceived tone and voice should be moderately urgent;
  - (3) the message should be compact as opposed to lengthy provided that the meaning is not compromised, e.g. 'One fifty feet' as opposed to 'One hundred and fifty feet';
  - (4) an information message is preferable (e.g. 'One hundred feet'); messages such as 'Low height' do not convey the correct impression during deliberate descents through the datum height;
  - (5) command messages (e.g. 'Pull up, pull up') should not be used unless they relate specifically to height monitoring (e.g. 'Check height'); and
  - (6) the volume of the warning should be adequate and not variable below an acceptable minimum value.
- (d) Every effort should be made to prevent spurious warnings.
- (e) The height at which the audio warning is triggered by the radio altimeter should be such as to provide adequate warning for the pilot to take corrective action. It is envisaged that most installations will adopt a height in the range of 100–160 ft. The datum should not be adjustable in flight.
- (f) The preset datum height should not be set in a way that it coincides with commonly used instrument approach minima (i.e. 200 ft). Once triggered, the message should sound within 0.5 sec.

(g) The voice warning should be triggered only whilst descending through the preset datum height and be inhibited whilst ascending.

15. A new GM2 CAT.IDE.H.145 Radio altimeters is added:

**GM2 CAT.IDE.H.145 Radio altimeters**

**RADIO ALTIMETER DISPLAY**

An analogue type display presentation may be, for example, a representation of a dial, ribbon or bar, but not a display that provides numbers only. An analogue type display may be embedded into an electronic flight instrument system (EFIS).

16. A new GM1 CAT.IDE.H.320 Landing on water is added:

**GM1 CAT.IDE.H.320 Landing on water**

**DESIGN FOR LANDING ON WATER**

A helicopter is designed for landing on water if safety provisions at least equivalent to those for ditching (CS 27.801/CS 29.801) are met.