

ANNEX

Draft Annex to draft Commission Implementing Regulation (EU) .../... amending Commission Regulation (EU) No 965/2012 as regards requirements for aeroplane performance, alternate power supply for cockpit voice recorders, in-flight recording for light aircraft, and non-ETOPS operations with performance class A aeroplanes that have a maximum operational passenger seating configuration of 19 or less

A. Annex I (Definitions for terms used in Annexes II to VIII) to Commission Regulation (EU) No 965/2012 is amended as follows:

1. the following point (22a) is inserted:

‘(22a) “cockpit voice recorder (CVR)” means a crash-protected flight recorder that uses a combination of microphones and other audio and digital inputs to collect and record the aural environment of the flight crew compartment and communications to, from and between the flight crew members;’;
2. point (25) is replaced by the following:

‘(25) “contaminated runway” means a runway of which a significant portion of its surface area (whether in isolated areas or not) within the length and width being used is covered by one or more of the substances listed under the runway surface condition descriptors;’;
3. point (32) ‘damp runway’ is deleted;
4. point (42) is replaced by the following:

‘(42) “dry runway” means a runway whose surface is free of visible moisture and not contaminated within the area intended to be used;’;
5. the following point (49a) is inserted:

‘(49a) “flight data recorder (FDR)” means a crash-protected flight recorder that uses a combination of data providers to collect and record parameters that reflect the state and performance of the aircraft;’;
6. the following point (49b) is inserted:

‘(49b) “flight recorder” means any type of recorder that is installed on the aircraft for the purpose of facilitating accident/incident safety investigations;’;
7. the following point (70a) is inserted:

‘(70a) “landing distance at time of arrival (LDTA)” means a landing distance that is achievable in normal operations based on landing performance data and associated procedures determined for the prevailing conditions at the time of landing;’;
8. the following point (103c) is inserted:

‘(103c) “runway condition assessment matrix (RCAM)” means a matrix that allows the assessment of the runway condition code, using associated procedures, from a set of observed runway surface condition(s) and pilot report of braking action;’;
9. the following point (103d) is inserted:

‘(103d) “runway condition code (RWYCC)” means a number to be used in the runway condition report (RCR) that describes the effect of the runway surface condition(s) on aeroplane deceleration performance and lateral control;’;

10. the following point (103e) is inserted:

‘(103e) “runway condition report (RCR)” means a comprehensive standardised report relating to runway surface conditions and their effect on the aeroplane landing and take-off performance;’;

11. the following point (103f) is inserted:

‘(103f) “runway surface condition(s)” means a description of the condition(s) of the runway surface used in the runway condition report (RCR) which establishes the basis for the determination of the runway condition code for aeroplane performance purposes;’;

12. the following point (103g) is inserted:

‘(103g) “runway surface condition descriptors” means one of the following elements on the surface of the runway:

- (a) “compacted snow”: snow that has been compacted into a solid mass such that aeroplane tires, at operating pressures and loadings, will run on the surface without significant further compaction or rutting of the surface;
- (b) “dry snow”: snow from which a snowball cannot readily be made;
- (c) “frost”: ice crystals formed from airborne moisture on a surface whose temperature is at or below freezing; frost differs from ice in that frost crystals grow independently and, therefore, have a more granular texture;
- (d) “ice”: water that has frozen, or compacted snow that has transitioned into ice, in cold and dry conditions;
- (e) “slush”: snow that is so water-saturated that water will drain from it when a handful is picked up or will splatter if stepped on forcefully;
- (f) “standing water”: water of depth greater than 3 mm;
- (g) “wet ice”: ice with water on top of it or ice that is melting;
- (h) “wet snow”: snow that contains enough water to be able to make a well-compacted, solid snowball, but water will not squeeze out;’;

13. the following point (107a) is inserted:

‘(107a) “slippery wet runway” means a wet runway whose surface friction characteristics, for a significant portion of it, have been determined to be degraded;’;

14. the following point (107b) is inserted:

‘(107b) “specially prepared winter runway” means a runway with a dry frozen surface of compacted snow and/or ice which has been treated with sand or grit or has been mechanically treated to improve runway friction;’;

15. point (128) is replaced by the following:

‘(128) “wet runway” means a runway whose surface is covered by any visible dampness or water up to and including 3 mm deep within the area intended to be used;’

B. Annex II (Part-ARO) to Commission Regulation (EU) No 965/2012 is amended as follows:

1. Appendix II is replaced by the following:

‘Appendix II

OPERATIONS SPECIFICATIONS (subject to the approved conditions in the operations manual)				
Issuing Authority Contact Details Telephone ⁽¹⁾ : _____; Fax: _____; E-mail: _____				
AOC ⁽²⁾ : _____		Operator Name ⁽³⁾ : _____ Db a Trading Name		Signature: _____
Operations Specifications #:				
Aircraft Model ⁽⁵⁾ : _____ Registration Marks ⁽⁶⁾ : _____				
Types of operations: Commercial operations <input type="checkbox"/> Passengers <input type="checkbox"/> Cargo <input type="checkbox"/> Others ⁽⁷⁾ : _____				
Area of operation ⁽⁸⁾ : _____				
Special Limitations ⁽⁹⁾ :				
Specific Approvals:	Yes	No	Specification ⁽¹⁰⁾	Remarks
Dangerous Goods	<input type="checkbox"/>	<input type="checkbox"/>		
Low Visibility Operations Take-off Approach and Landing	<input type="checkbox"/>	<input type="checkbox"/>	CAT ⁽¹¹⁾ RVR ⁽¹²⁾ : m DA/H: ft RVR: m	
RVSM ⁽¹³⁾ <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>		
ETOPS ⁽¹⁴⁾ <input type="checkbox"/> N/A	<input type="checkbox"/>	<input type="checkbox"/>	Maximum Diversion Time ⁽¹⁵⁾ : min.	
Complex navigation specifications for PBN operations ⁽¹⁶⁾	<input type="checkbox"/>	<input type="checkbox"/>		(17)
Minimum navigation performance specification	<input type="checkbox"/>	<input type="checkbox"/>		

Operations of single-engined turbine aeroplane at night or in IMC (SET-IMC)	<input type="checkbox"/>	<input type="checkbox"/>	(¹⁸)	
Helicopter operations with the aid of night vision imaging systems	<input type="checkbox"/>	<input type="checkbox"/>		
Helicopter hoist operations	<input type="checkbox"/>			
Helicopter emergency medical service operations	<input type="checkbox"/>	<input type="checkbox"/>		
Helicopter offshore operations	<input type="checkbox"/>	<input type="checkbox"/>		
Cabin crew training(¹⁹)	<input type="checkbox"/>	<input type="checkbox"/>		
Issue of CC attestation(²⁰)	<input type="checkbox"/>	<input type="checkbox"/>		
Use of type B EFB applications	<input type="checkbox"/>	<input type="checkbox"/>	(²¹)	
Continuing airworthiness	<input type="checkbox"/>	<input type="checkbox"/>	(²²)	
Others(²³)				

- (¹) Telephone and fax contact details of the competent authority, including the country code. Email to be provided if available.
- (²) Insertion of associated air operator certificate (AOC) number.
- (³) Insertion of the operator's registered name and the operator's trading name, if different. Insert 'DbA' before the trading name (for 'Doing business as').
- (⁴) Issue date of the operations specifications (dd-mm-yyyy) and signature of the competent authority representative.
- (⁵) Insertion of ICAO designation of the aircraft make, model and series, or master series, if a series has been designated (e.g. Boeing-737-3K2 or Boeing-777-232).
- (⁶) Either the registration marks are listed in the operations specifications or in the operations manual. In the latter case, the related operations specifications must make a reference to the related page in the operations manual. In case not all specific approvals apply to the aircraft model, the registration marks of the aircraft may be entered in the remark column to the related specific approval.
- (⁷) Other type of transportation to be specified (e.g. emergency medical service).
- (⁸) Listing of geographical area(s) of authorised operation (by geographical coordinates or specific routes, flight information region, or national or regional boundaries).
- (⁹) Listing of applicable special limitations (e.g. VFR only, Day only, etc.).

- (¹⁰) List in this column the most permissive criteria for each approval or the approval type (with appropriate criteria).
- (¹¹) Insertion of applicable precision approach category: LTS CAT I, CAT II, OTS CAT II, CAT IIIA, CAT IIIB or CAT IIIC. Insertion of minimum runway visual range (RVR) in meters and decision height (DH) in feet. One line is used per listed approach category.
- (¹²) Insertion of approved minimum take-off RVR in metres. One line per approval may be used if different approvals are granted.
- (¹³) The 'Not Applicable (N/A) box may be checked only if the aircraft maximum ceiling is below FL290.
- (¹⁴) Extended range operations (ETOPS) currently applies only to two-engined aircraft. Therefore, the not applicable (N/A) box may be checked if the aircraft model has less or more than two engines.
- (¹⁵) The threshold distance may also be listed (in NM), as well as the engine type.
- (¹⁶) Performance-based navigation (PBN): one line is used for each complex PBN specific approval (e.g. RNP AR APCH), with appropriate limitations listed in the 'Specifications' and/or 'Remarks' columns. Procedure-specific approvals of specific RNP AR APCH procedures may be listed in the operations specifications or in the operations manual. In the latter case, the related operations specifications must have a reference to the related page in the operations manual.
- (¹⁷) Specify if the specific approval is limited to certain runway ends and/or aerodromes.
- (¹⁸) Insertion of the particular airframe/engine combination.
- (¹⁹) Approval to conduct the training course and examination to be completed by applicants for a cabin crew attestation as specified in Annex V (Part-CC) to Regulation (EU) No 1178/2011.
- (²⁰) Approval to issue cabin crew attestations as specified in Annex V (Part-CC) to Regulation (EU) No 1178/2011.
- (²¹) Insertion of the list of type B EFB applications together with the reference of the EFB hardware (for portable EFBs). Either this list is contained in the operations specifications or in the operations manual. In the latter case, the related operations specifications must make a reference to the related page in the operations manual.
- (²²) The name of the person/organisation responsible for ensuring that the continuing airworthiness of the aircraft is maintained and a reference to the regulation that requires the work, i.e. Subpart G of Annex I (Part-M) to Regulation (EU) No 1321/2014.
- (²³) Other approvals or data may be entered here, using one line (or one multi-line block) per authorisation (e.g. short landing operations, steep approach operations, reduced required landing distance, helicopter operations to/from a public interest site, helicopter operations over a hostile environment located outside a congested area, helicopter operations without a safe forced landing capability, operations with increased bank angles, maximum distance from an adequate aerodrome for two-engined aeroplanes without an ETOPS approval).

C. Annex III (Part-ORO) to Commission Regulation (EU) No 965/2012 is amended as follows:

1. point ORO.SEC.100 is replaced by the following:

‘ORO.SEC.100 Maximum distance from an adequate aerodrome for two-engined aeroplanes

- (a) In an aeroplane which is equipped with a secure flight crew compartment door, this door shall be capable of being locked, and means shall be provided by which the cabin crew can notify the flight crew in the event of suspicious activity or security breaches in the cabin.
- (b) All passenger-carrying aeroplanes that are engaged in the commercial transportation of passengers shall be equipped with an approved secure flight crew compartment door that is capable of being locked and unlocked from either pilot’s station and designed to meet the applicable airworthiness requirements, when they fall within any of the following categories:
 - (1) aeroplanes with an MCTOM that exceeds 54 500 kg;
 - (2) aeroplanes with an MCTOM that exceeds 45 500 kg and have an MOPSC of more than 19; or
 - (3) aeroplanes with an MOPSC of more than 60.
- (c) In all aeroplanes which are equipped with a secure flight crew compartment door in accordance with point (b) above:
 - (1) this door shall be closed prior to engine start for take-off and shall be locked when required so by security procedures or by the pilot-in-command until engine shutdown after landing, except when deemed to be necessary for authorised persons to access or egress in compliance with national civil aviation security programmes; and
 - (2) means shall be provided for monitoring from either pilot’s station the entire door area outside the flight crew compartment to identify persons that request to enter and to detect suspicious behaviour or potential threat.’

D. Annex IV (Part-CAT) to Commission Regulation (EU) No 965/2012 is amended as follows:

1. point CAT.GEN.MPA.195 is replaced by the following:

‘CAT.GEN.MPA.195 Handling of flight recorder recordings: preservation, production, protection and use

- (a) Following an accident, a serious incident or an occurrence identified by the investigating authority, the operator of an aircraft shall preserve the original recorded data of the flight recorders for a period of 60 days or until otherwise directed by the investigating authority.
- (b) The operator shall conduct operational checks and evaluations of the recordings to ensure the continued serviceability of the flight recorders which are required to be carried.
- (c) The operator shall ensure that the recordings of flight parameters and data link communication messages required to be recorded on flight recorders are preserved, except that, for the purpose of testing and maintaining these flight recorders, up to 1 hour of the oldest recorded data at the time of testing may be erased.

- (d) The operator shall keep and maintain up to date documentation that presents the necessary information to convert raw flight data into flight parameters expressed in engineering units.
- (e) The operator shall make available any flight recorder recordings that have been preserved, if so determined by the competent authority.
- (f) Without prejudice to Regulations (EU) No 996/2010 ⁽¹⁾ and (EU) 2016/679 ⁽²⁾:
 - (1) Except for ensuring flight recorder serviceability, audio recordings from a flight recorder shall not be disclosed or used unless:
 - (i) a procedure related to the handling of such audio recordings and of their transcript is in place;
 - (ii) all crew members and maintenance personnel concerned have given their prior consent; and
 - (iii) such audio recordings are used only for maintaining or improving safety.
 - (1a) When inspecting flight recorder audio recordings to ensuring flight recorder serviceability, the operator shall ensure the privacy of these audio recordings and that they shall not be disclosed or used for purposes other than for ensuring flight recorder serviceability.
 - (2) Flight parameters or data link messages recorded by a flight recorder shall not be used for purposes other than for the investigation of an accident or an incident which is subject to mandatory reporting, unless such recordings are:
 - (i) used by the operator for airworthiness or maintenance purposes only; or
 - (ii) de-identified; or
 - (iii) disclosed under secure procedures.
 - (3) Except for ensuring flight recorder serviceability, images of the flight crew compartment that are recorded by a flight recorder shall not be disclosed or used unless:
 - (i) a procedure related to the handling of such image recordings is in place;
 - (ii) all crew members and maintenance personnel concerned have given their prior consent; and
 - (iii) such image recordings are used only for maintaining or improving safety.
 - (3a) When images of the flight crew compartment that are recorded by a flight recorder are inspected for ensuring the serviceability of the flight recorder, then:
 - (i) these images shall not be disclosed or used for purposes other than for ensuring flight recorder serviceability; and

⁽¹⁾ Regulation (EU) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC (OJ L 295, 12.11.2010, p. 35).

⁽²⁾ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1).

- (ii) if body parts of crew members are likely to be visible on the images, the operator shall ensure the privacy of these images.’;
- 2. in point CAT.OP.MPA140, point (a) is replaced by the following:
 - (a) Unless approved by the competent authority in accordance with Subpart F of Annex V (Part-SPA), the operator shall not operate a two-engined aeroplane over a route that contains a point further from an adequate aerodrome, under standard conditions in still air, than the distance defined in the appropriate subparagraph below for that type of aeroplane:
 - (1) for performance class A aeroplanes with a maximum operational passenger seating configuration (MOPSC) of 20 or more, the distance flown in 60 minutes at the one-engine-inoperative (OEI) cruising speed determined in accordance with (b);
 - (2) for performance class A aeroplanes with an MOPSC of 19 or less, the distance flown in 120 minutes or, subject to approval by the competent authority, up to 180 minutes for turbojet aeroplanes, at the OEI cruise speed determined in accordance with (b);
 - (3) for performance class B or C aeroplanes:
 - (i) the distance flown in 120 minutes at the OEI cruise speed determined in accordance with (b); or
 - (ii) 300 NM, whichever is less.’;
- 3. in point CAT.OP.MPA140, point (d) is replaced by the following:
 - ‘(d) To obtain the approval referred to in (a)(2), the operator shall provide evidence that:
 - (1) procedures have been established for flight planning and dispatch;
 - (2) specific maintenance instructions and procedures to ensure the intended levels of continued airworthiness and reliability of the aeroplane including its engines have been established and included in the operator’s aircraft maintenance programme in accordance with Annex I (Part-M) to Commission Regulation (EU) No 1321/2014, including:
 - (i) an engine oil consumption programme; and
 - (ii) an engine condition monitoring programme;’;
- 4. point CAT.OP.MPA.300 is replaced by the following:

‘CAT.OP.MPA.300 Approach and landing conditions — aeroplanes

Before commencing an approach to land, the commander shall:

 - (a) be satisfied that, according to the information available to him or her, the weather at the aerodrome and the condition of the runway intended to be used would not prevent a safe approach, landing or missed approach, having regard to the performance information contained in the operations manual (OM); and
 - (b) carry out a landing distance assessment in accordance with CAT.OP.MPA.303.’;
- 5. the following point CAT.OP.MPA.301 is inserted:

‘CAT.OP.MPA.301 Approach and landing conditions — helicopters

Before commencing an approach to land, the commander shall be satisfied that according to the information available to him or her, the weather at the aerodrome and the condition of the final approach and take-off area (FATO) intended to be used would not prevent a safe approach, landing or missed approach, having regard to the performance information contained in the operations manual (OM).’;

6. the following point CAT.OP.MPA.303 is inserted:

‘CAT.OP.MPA.303 In-flight check of the landing distance at time of arrival — aeroplanes

(a) For performance class A aeroplanes that are certified:

- (1) in accordance with CS-25 or equivalent; or
- (2) in accordance with CS-23 at level 4 with performance level “High speed” or equivalent,

no approach to land shall be continued unless the landing distance available (LDA) on the intended runway is at least 115 % of the landing distance at the estimated time of landing, determined in accordance with the performance information for the assessment of the landing distance at time of arrival (LDTA).

(b) For performance class A aeroplanes other than those referred to in (a), no approach to land shall be continued unless:

- (1) the LDA on the intended runway is at least 115 % of the landing distance at the estimated time of landing, determined in accordance with the performance information for the assessment of the LDTA; or
- (2) if performance information for the assessment of the LDTA is not available, the LDA on the intended runway at the estimated time of landing is at least the required landing distance determined in accordance with CAT.POL.A.230 or CAT.POL.A.235, as applicable.

(c) For performance class B aeroplanes, no approach to land shall be continued unless:

- (1) the LDA on the intended runway is at least 115 % of the landing distance at the estimated time of landing, determined in accordance with the performance information for the assessment of the LDTA; or
- (2) if performance information for the assessment of the LDTA is not available, the LDA on the intended runway at the estimated time of landing is at least the required landing distance determined in accordance with CAT.POL.A.330 or CAT.POL.A.335, as applicable.

(d) For performance class C aeroplanes, no approach to land shall be continued unless:

- (1) the LDA on the intended runway is at least 115 % of the landing distance at the estimated time of landing, determined in accordance with the performance information for the assessment of the LDTA; or
- (2) if performance information for the assessment of the LDTA is not available, the LDA on the intended runway at the estimated time of landing is at least the required landing distance determined in accordance with CAT.POL.A.430 or CAT.POL.A.435, as applicable.

- (e) Performance information for the assessment of the LDTA shall be based on approved data contained in the AFM. When approved data contained in the AFM are insufficient in respect of the assessment of the LDTA, they shall be supplemented with other data which are either determined in accordance with the applicable certification standards for aeroplanes or determined by the Agency.
- (f) The operator shall specify in the OM the performance information for the assessment of the LDTA and the assumptions made for its development, including other data that, in accordance with (e), may be used to supplement that contained in the AFM.’;

7. the following point CAT.OP.MPA.311 is inserted:

‘CAT.OP.MPA.311 Reporting on runway braking action

Whenever the runway braking action encountered during the landing roll is not as good as that reported by the aerodrome operator in the runway condition report (RCR), the commander shall notify the air traffic services (ATS) by means of a special air-report (AIREP) as soon as practicable.’;

9. in point CAT.POL.A.105, points (d) and (e) are replaced by the following point (d):

‘(d) The operator shall take account of charting accuracy when assessing the take-off requirements of the applicable chapters.’;

10. in point CAT.POL.A.215, points (b), (c) and (d) are replaced by the following:

‘(b) The gradient of the en-route net flight path shall be positive at least 1 000 ft above all terrain and obstructions along the route within 9.3 km (5 NM) on either side of the intended track.

(c) The en-route net flight path shall permit the aeroplane to continue flight from the cruising altitude to an aerodrome where a landing can be made in accordance with CAT.POL.A.230 or CAT.POL.A.235, as appropriate. The en-route net flight path shall clear vertically, by at least 2 000 ft, all terrain and obstructions along the route within 9.3 km (5 NM) on either side of the intended track, taking into account the following elements:

- (1) the engine is assumed to fail at the most critical point along the route;
- (2) account is taken of the effects of winds on the flight path;
- (3) fuel jettisoning is permitted to an extent consistent with reaching the aerodrome where the aeroplane is assumed to land after engine failure with the required fuel reserves as per CAT.OP.MPA.150, appropriate for an alternate aerodrome, if a safe procedure is used; and
- (4) the aerodrome where the aeroplane is assumed to land after engine failure shall meet the following criteria:
 - (i) the performance requirements for the expected landing mass are met; and
 - (ii) weather reports and/or forecasts and runway condition reports indicate that a safe landing can be accomplished at the estimated time of landing; and
- (5) if the AFM does not contain en-route net flight path data, the gross OEI en-route flight path shall be reduced by a climb gradient of 1.1 % for two-engined

aeroplanes, 1.4 % for three-engined aeroplanes, and 1.6 % for four-engined aeroplanes.

- (d) The operator shall increase the width margins of (b) and (c) to 18.5 km (10 NM) if the navigational accuracy does not meet at least RNAV 5.’;

11. point CAT.POL.A.220 is replaced by the following:

‘CAT.POL.A.220 En route — aeroplanes with three or more engines, two engines inoperative

- (a) At no point along the intended track shall an aeroplane that has three or more engines be for more than 90 minutes, with all engines operating at cruising power or thrust, as appropriate, at standard temperature in still air, away from an aerodrome at which the requirements of CAT.POL.A.230 or CAT.POL.A.235(a), as applicable, for the expected landing mass are met, unless it complies with (b) to (f).
- (b) The two-engines-inoperative en-route net flight path data shall allow the aeroplane to continue the flight, in the expected meteorological conditions, from the point where two engines are assumed to fail simultaneously to an aerodrome at which it is possible to land and come to a complete stop when using the prescribed procedure for a landing with two engines inoperative. The en-route net flight path shall clear vertically, by at least 2 000 ft, all terrain and obstructions along the route within 9.3 km (5 NM) on either side of the intended track. At altitudes and in meteorological conditions that require ice protection systems to be operable, the effect of their use on the en-route net flight path data shall be taken into account. If the navigational accuracy does not meet at least RNAV 5, the operator shall increase the width margin given above to 18.5 km (10 NM).
- (c) The two engines shall be assumed to fail at the most critical point of that portion of the route where the aeroplane is operated for more than 90 minutes, with all engines operating at cruising power or thrust, as appropriate, at standard temperature in still air, away from the aerodrome specified in (a) above.
- (d) The net flight path shall have a positive gradient at 1 500 ft above the aerodrome where the landing is assumed to be made after the failure of two engines.
- (e) Fuel jettisoning shall be permitted to an extent consistent with reaching the aerodrome with the required fuel reserves of (f) below, if a safe procedure is used.
- (f) The expected mass of the aeroplane at the point where the two engines are assumed to fail shall not be less than that which would include sufficient fuel to proceed to an aerodrome where the landing is assumed to be made, and to arrive there at least 1 500 ft directly over the landing area and thereafter to fly for 15 minutes at cruising power or thrust, as appropriate.’;

12. point CAT.POL.A.230 is replaced by the following:

‘CAT.POL.A.230 Landing — dry runways

- (a) The landing mass of the aeroplane determined in accordance with CAT.POL.A.105(a) for the estimated time of landing at the destination aerodrome and at any alternate aerodrome shall allow a full-stop landing from 50 ft above the threshold:
 - (1) for turbojet-powered aeroplanes, within 60 % of the landing distance available (LDA);

- (2) for turbopropeller-powered aeroplanes, within 70 % of the LDA; and
 - (3) by way of derogation from (a)(1) and (a)(2) above, for aeroplanes that are approved for reduced landing distance operations under CAT.POL.A.255, within 80 % of the LDA.
- (b) For steep approach operations, the operator shall use the landing distance data factored in accordance with (a)(1) or (a)(2), as applicable, based on a screen height of less than 60 ft, but not less than 35 ft, and shall comply with CAT.POL.A.245.
 - (c) For short landing operations, the operator shall use the landing distance data factored in accordance with (a)(1) or (a)(2), as applicable, and shall comply with CAT.POL.A.250.
 - (d) When determining the landing mass, the operator shall take into account both of the following:
 - (1) not more than 50 % of the headwind component or not less than 150 % of the tailwind component; and
 - (2) corrections as provided in the AFM.
 - (e) For dispatching the aeroplane, it shall be assumed that:
 - (1) the aeroplane will land on the most favourable runway, in still air; and
 - (2) the aeroplane will land on the runway most likely to be assigned, considering the probable wind speed and direction, the ground-handling characteristics of the aeroplane and other conditions such as landing aids and terrain.
 - (f) If the operator is unable to comply with (e)(2) for the destination aerodrome, the aeroplane shall be only dispatched if an alternate aerodrome is designated that allows full compliance with one of the following:
 - (1) CAT.POL.A.230 (a) to (d) if the runway at the estimated time of arrival is dry; or
 - (2) CAT.POL.A.235(a) to (d) if the runway at the estimated time of arrival is wet or contaminated.’;

13. point CAT.POL.A.235 is replaced by the following:

‘CAT.POL.A.235 Landing — wet and contaminated runways

- (a) When the appropriate weather reports and/or forecasts indicate that the runway at the estimated time of arrival may be wet, the LDA shall be one of the following distances:
 - (1) a landing distance provided in the AFM for use on wet runways at time of dispatch, but not less than that required by CAT.POL.A.230(a)(1) or (a)(2), as applicable; or
 - (2) if a landing distance is not provided in the AFM for use on wet runways at time of dispatch, at least 115 % of the required landing distance, determined in accordance with CAT.POL.A.230(a)(1) or (a)(2), as applicable; or
 - (3) a landing distance shorter than that required by (a)(2), but not less than that required by CAT.POL.A.230(a)(1) or (a)(2), as applicable, if the runway has specific friction-improving characteristics and the AFM includes specific additional information for landing distance on that runway type; or

- (4) by way of derogation from (a)(1), (a)(2) and (a)(3) above, for aeroplanes that are approved for reduced landing distance operations under CAT.POL.A.255, the landing distance determined in accordance with CAT.POL.A.255(b)(2)(v)(B).
- (b) When the appropriate weather reports and/or forecasts indicate that the runway at the estimated time of arrival may be contaminated, the LDA shall be:
 - (1) at least the landing distance determined in accordance with (a), or at least 115 % of the landing distance determined in accordance with approved contaminated landing distance data or equivalent, whichever is greater; or
 - (2) on specially prepared winter runways, a landing distance shorter than that required by (b)(1), but not less than that required by CAT.POL.A.235(a), may be used if the AFM includes specific additional information about landing distances on contaminated runways. Such landing distance shall be at least 115% of the landing distance contained in the AFM.
- (c) By way of derogation from (b) above, the increment of 15 % needs not to be applied if it is already included in the approved landing distance data or equivalent.
- (d) For (a) and (b) above, the criteria of CAT.POL.A.230(b) to (d) shall apply accordingly.
- (e) For dispatching the aeroplane, it shall be assumed that:
 - (1) the aeroplane will land on the most favourable runway, in still air; and
 - (2) the aeroplane will land on the runway most likely to be assigned, considering the probable wind speed and direction, the ground-handling characteristics of the aeroplane and other conditions such as landing aids and terrain.
- (f) If the operator is unable to comply with (e)(1) above for a destination aerodrome where the appropriate weather reports and/or forecasts indicate that the runway at the estimated time of arrival may be contaminated and where a landing depends upon a specific wind component, the aeroplane may be dispatched if two alternate aerodromes are designated.
- (g) If the operator is unable to comply with (e)(2) for the destination aerodrome where the appropriate weather reports and/or forecasts indicate that the runway at the estimated time of arrival may be wet or contaminated, the aeroplane shall be only dispatched if an alternate aerodrome is designated.
- (h) For (f) and (g) above, the designated alternate aerodrome(s) shall allow compliance with:
 - (1) CAT.POL.A.230(a) to (d) if the runway at the estimated time of arrival is dry; or
 - (2) CAT.POL.A.235(a) to (d) if the runway at the estimated time of arrival is wet or contaminated.’;

14. in point CAT.POL.A.250, point (b)(12) is replaced by the following:

- ‘(12) reduced required landing distance operations in accordance with CAT.POL.A.255 are prohibited; and
- (13) additional conditions, if specified by the competent authority, taking into account aeroplane type characteristics, orographic characteristics in the approach area, available approach aids and missed approach/balked landing considerations.’;

15. the following point CAT.POL.A.255 is inserted:

‘CAT.POL.A.255 Approval of reduced required landing distance operations

- (a) For aeroplanes that have an MOPSC of 19 or less and have an eligibility statement in the AFM, and are used in non-scheduled on-demand commercial air transport (CAT) operations, landing with a landing mass of the aeroplane allowing a full-stop landing within 80 % of the landing distance available (LDA) requires prior approval by the competent authority.
- (b) To obtain the approval, the operator shall provide evidence that:
 - (1) a risk assessment has been conducted to demonstrate that a level of safety equivalent to that intended by CAT.POL.A.230(a)(1) or CAT.POL.A.230(a)(2), as applicable, is achieved; or
 - (2) all of the following conditions are met:
 - (i) special-approach procedures, such as steep approaches, planned screen heights higher than 60 ft or lower than 35 ft, low-visibility operations, approaches outside stabilised approach criteria approved under CAT.OP.MPA.115(a), are prohibited;
 - (ii) short landing operations in accordance with CAT.POL.A.250 are prohibited;
 - (iii) landing on contaminated runways is prohibited;
 - (iv) an adequate training, checking and monitoring process for the flight crew is established;
 - (v) an aerodrome landing analysis programme (ALAP) is established by the operator to ensure that the following conditions are met:
 - (A) no tailwind is forecast at the expected time of arrival;
 - (B) if the runway is forecast to be wet at the expected time of arrival, the landing distance at dispatch shall either be determined in accordance with CAT.OP.MPA.303(a) or (b) as applicable, or shall be 115 % of the landing distance determined for dry runways, whichever is longer;
 - (C) no forecast contaminated runway conditions exist at the expected time of arrival; and
 - (D) no forecast adverse weather conditions exist at the expected time of arrival;
 - (vi) all the equipment that affects landing performance is operative before commencing the flight;
 - (vii) the flight crew is composed of at least two qualified and trained pilots that have recency in reduced required landing distance operations;
 - (viii) based on the prevailing conditions for the intended flight, the commander shall make the final decision to conduct reduced required landing distance operations and may decide not to do so when he or she considers this to be in the interest of safety; and
 - (ix) additional aerodrome conditions, if specified by the competent authority that has certified the aerodrome, taking into account orographic characteristics of

the approach area, available approach aids, missed-approach and balked-landing considerations.’;

16. point CAT.POL.A.330 is replaced by the following:

‘CAT.POL.A.330 Landing — dry runways

- (a) The landing mass of the aeroplane determined in accordance with CAT.POL.A.105(a) for the estimated time of landing at the destination aerodrome and at any alternate aerodrome shall allow a full-stop landing from 50 ft above the threshold within 70 % of the LDA.
- (b) By way of derogation from (a) above, the landing mass of the aeroplane determined in accordance with CAT.POL.A.105(a) for the estimated time of landing at the destination aerodrome may allow a full-stop landing from 50 ft above the threshold within 80 % of the LDA when CAT.POL.A.355 is complied with.
- (c) When determining the landing mass, the operator shall take all of the following into account:
 - (1) the altitude at the aerodrome;
 - (2) not more than 50 % of the headwind component or not less than 150 % of the tailwind component;
 - (3) the type of runway surface; and
 - (4) the runway slope in the direction of landing.
- (d) For steep approach operations, the operator shall use landing distance data factored in accordance with (a) based on a screen height of less than 60 ft, but not less than 35 ft, and comply with CAT.POL.A.345.
- (e) For short landing operations, the operator shall use landing distance data factored in accordance with (a) and comply with CAT.POL.A.350.
- (f) For dispatching the aeroplane, it shall be assumed that:
 - (1) the aeroplane will land on the most favourable runway, in still air; and
 - (2) the aeroplane will land on the runway most likely to be assigned considering the probable wind speed and direction, the ground-handling characteristics of the aeroplane and other conditions such as landing aids and terrain.
- (g) If the operator is unable to comply with (f)(2) for the destination aerodrome, the aeroplane shall only be dispatched if an alternate aerodrome is designated that permits full compliance with (a) to (f).’;

17. point CAT.POL.A.335 is replaced by the following:

‘CAT.POL.A.335 Landing — wet and contaminated runways

- (a) When the appropriate weather reports and/or forecasts indicate that the runway at the estimated time of arrival may be wet, the LDA shall be:
 - (1) a landing distance provided in the AFM for use on wet runways at time of dispatch, but not less than that required by CAT.POL.A.330; or

- (2) if a landing distance is not provided in the AFM for use on wet runways at time of dispatch, at least 115 % of the required landing distance, determined in accordance with CAT.POL.A.330(a); or
 - (3) a landing distance shorter than that required by (a)(2), but not less than that required by CAT.POL.A.330(a), as applicable, if the runway has specific friction improving characteristics and the AFM includes specific additional information for landing distance on that runway type; or
 - (4) by way of derogation from (a)(1), (a)(2) and (a)(3) above, for aeroplanes that are approved for reduced landing distance operations under CAT.POL.A.355, the landing distance determined in accordance with CAT.POL.A.355(b)(7)(iii).
- (b) When the appropriate weather reports and/or forecasts indicate that the runway at the estimated time of arrival may be contaminated, the landing distance shall not exceed the LDA. The operator shall specify in the operations manual the landing distance data to be applied.’;

18. in point CAT.POL.A.415, points (d) and (e) are replaced by the following:

- ‘(d) The width margins of (a) shall be increased to 18.5 km (10 NM) if the navigational accuracy does not meet at least RNAV 5.
- (e) Fuel jettisoning is permitted to an extent consistent with reaching the aerodrome where the aeroplane is assumed to land after engine failure with the required fuel reserves as per CAT.OP.MPA.150, appropriate for an alternate aerodrome, if a safe procedure is used.’;

19. the following point CAT.POL.A.355 is inserted:

‘CAT.POL.A.355 Approval of reduced required landing distance operations

- (a) Operations with a landing mass of the aeroplane that allows a full-stop landing within 80 % of the landing distance available (LDA) require prior approval by the competent authority. Such approval shall be obtained for each runway on which operations with reduced required landing distance are conducted.
- (b) To obtain the approval, a risk assessment shall be conducted by the operator to demonstrate that a level of safety equivalent to that intended by CAT.POL.A.330(a) is achieved, and at least the following conditions are met:
 - (1) the State of the aerodrome has determined a public interest and operational necessity for the operation, either due to the remoteness of the aerodrome or to physical limitations relating to the extension of the runway;
 - (2) short landing operations in accordance with CAT.POL.A.350 and approaches outside stabilised approach criteria approved under CAT.OP.MPA.115(a) are prohibited;
 - (3) landing on contaminated runways is prohibited;
 - (4) a specific control procedure of the touchdown area is defined in the operations manual (OM) and implemented; this procedure shall include adequate go-around and balked-landing instructions when touchdown in the defined area cannot be achieved;
 - (5) an adequate aerodrome training and checking programme for the flight crew is established;

- (6) the flight crew is qualified and has recency in reduced required landing distance operations at the aerodrome concerned;
- (7) an aerodrome landing analysis programme (ALAP) is established by the operator to ensure that the following conditions are met:
 - (i) no tailwind is forecast at the expected time of arrival;
 - (iii) if the runway is forecast to be wet at the expected time of arrival, the landing distance at dispatch shall either be determined in accordance with CAT.OP.MPA.303(c), or shall be 115 % of the landing distance determined for dry runways, whichever is longer;
 - (ii) no forecast contaminated runway conditions exist at the expected time of arrival; and
 - (iv) no forecast adverse weather conditions exist at the expected time of arrival;
- (8) operational procedures are established to ensure that:
 - (i) all the equipment that affects landing performance and landing distance is operative before commencing the flight; and
 - (ii) deceleration devices are correctly used by the flight crew;
- (9) specific maintenance instructions and operational procedures are established for the aeroplane's deceleration devices to enhance the reliability of these systems;
- (10) the final approach and landing are conducted under visual meteorological conditions (VMC) only; and
- (11) additional aerodrome conditions, if specified by the competent authority that has certified the aerodrome, taking into account orographic characteristics of the approach area, available approach aids, missed-approach and balked-landing considerations.';

20. point CAT.POL.A.420 is replaced by the following:

'CAT.POL.A.420 En route — aeroplanes with three or more engines, two engines inoperative

- (a) At no point along the intended track shall an aeroplane that has three or more engines be for more than 90 minutes, with all engines operating at cruising power or thrust, as appropriate at standard temperature in still air, away from an aerodrome at which the requirements of CAT.POL.A.430, as applicable, for the expected landing mass are met, unless it complies with (b) to (e).
- (b) The two-engines-inoperative flight path shall permit the aeroplane to continue the flight, in the expected meteorological conditions, clearing all obstacles within 9.3 km (5 NM) on either side of the intended track by a vertical interval of at least 2 000 ft, to an aerodrome at which the performance requirements applicable for the expected landing mass are met.
- (c) The two engines are assumed to fail at the most critical point of that portion of the route where the aeroplane is operated for more than 90 minutes, with all engines operating at cruising power or thrust, as appropriate, at standard temperature in still air, away from the aerodrome specified in (a) above.

- (d) The expected mass of the aeroplane at the point where the two engines are assumed to fail shall not be less than that which would include sufficient fuel to proceed to an aerodrome where the landing is assumed to be made, and to arrive there at an altitude of at least 450 m (1 500 ft) directly over the landing area and thereafter to fly for 15 minutes at cruising power or thrust, as appropriate.
 - (e) The available rate of climb of the aeroplane shall be taken to be 150 ft per minute less than that specified.
 - (f) The width margins of (b) shall be increased to 18.5 km (10 NM) if the navigational accuracy does not meet at least RNAV 5.
 - (g) Fuel jettisoning is permitted to an extent consistent with reaching the aerodrome with the required fuel reserves as per (d) above if a safe procedure is used.’;
21. in point CAT.POL.A.430, point (a)(4) is replaced by the following:
- ‘(4) the runway slope in the direction of landing.’;
22. in point CAT.POL.A.435, point (a) is replaced by the following:
- ‘(a) When the appropriate weather reports and/or forecasts indicate that the runway at the estimated time of arrival may be wet, the LDA shall be:
 - (1) a landing distance provided in the AFM for use on wet runways at time of dispatch, but not less than that required by CAT.POL.A.430; or
 - (2) if a landing distance is not provided in the AFM for use on wet runways at time of dispatch, at least 115 % of the required landing distance, determined in accordance with CAT.POL.A.430.’;
23. in point CAT.IDE.A.185, the following point (i) is added:
- ‘(i) Aeroplanes with an MCTOM of over 27 000 kg and first issued with an individual CofA on or after [date of publication + 3 years] shall be equipped with an alternate power source to which the CVR and the cockpit-mounted area microphone are switched automatically in the event that all other power to the CVR is interrupted.’;
24. the following point CAT.IDE.A.191 is inserted:
- ‘CAT.IDE.A.191 Lightweight flight recorder**
- (a) Turbine-engined aeroplanes with an MCTOM of 2 250 kg or more and aeroplanes with an MOPSC of more than 9 shall be equipped with a flight recorder if both of the following conditions are met:
 - (1) they are not within the scope of point CAT.IDE.A.190(a); and
 - (2) they are first issued with an individual CofA on or after [date of publication of the amending regulation + 3 years].
 - (b) The flight recorder shall record, by means of flight data or images, information that is sufficient to determine the flight path and aircraft speed.
 - (c) The flight recorder shall be capable of retaining the flight data and the images recorded during at least the preceding 5 hours.

- (d) The flight recorder shall automatically start to record prior to the aeroplane being capable of moving under its own power and shall stop automatically after the aeroplane is no longer capable of moving under its own power.
- (e) If the flight recorder records images or audio of the flight crew compartment, then a function shall be provided which can be operated by the commander and which modifies image and audio recordings made before the operation of this function, so that these recordings cannot be retrieved using normal replay or copying techniques.’;

25. the following point CAT.IDE.H.191 is inserted:

‘CAT.IDE.H.191 Lightweight flight recorder

- (a) Turbine-engined helicopters with an MCTOM of 2 250 kg or more shall be equipped with a flight recorder if both of the following conditions are met:
 - (1) they are not within the scope of point CAT.IDE.H.190(a); and
 - (2) they are first issued with an individual CofA on or after [**date of publication of the amending regulation + 3 years**].
- (b) The flight recorder shall record, by means of flight data or images, information that is sufficient to determine the flight path and aircraft speed.
- (c) The flight recorder shall be capable of retaining the flight data and the images recorded during at least the preceding 5 hours.
- (d) The flight recorder shall automatically start to record prior to the helicopter being capable of moving under its own power and shall stop automatically after the helicopter is no longer capable of moving under its own power.
- (e) If the flight recorder records images or audio of the flight crew compartment, then a function shall be provided which can be operated by the commander and which modifies image and audio recordings made before the operation of this function, so that these recordings cannot be retrieved using normal replay or copying techniques.’

E. Annex VI (Part-NCC) to Commission Regulation (EU) No 965/2012 is amended as follows:

1. point NCC.GEN.145 is replaced by the following:

‘NCC.GEN.145 Handling of flight recorder recordings: preservation, production, protection and use

- (a) Following an accident, a serious incident or an occurrence identified by the investigating authority, the operator of an aircraft shall preserve the original recorded data of the flight recorders for a period of 60 days or until otherwise directed by the investigating authority.
- (b) The operator shall conduct operational checks and evaluations of recordings to ensure the continued serviceability of the flight recorders which are required to be carried.
- (c) The operator shall ensure that the recordings of flight parameters and data link communication messages required to be recorded on flight recorders are preserved, except that, for the purpose of testing and maintaining these flight recorders, up to 1 hour of the oldest recorded data at the time of testing may be erased.

- (d) The operator shall keep and maintain up to date documentation that presents the necessary information to convert raw flight data into flight parameters expressed in engineering units.
- (e) The operator shall make available any flight recorder recordings that have been preserved, if so determined by the competent authority.
- (f) By way of derogation from Regulations (EU) No 996/2010 and (EU) 2016/679:
 - (1) Except for ensuring flight recorder serviceability, audio recordings from a flight recorder shall not be disclosed or used unless:
 - (i) a procedure related to the handling of such audio recordings and of their transcript is in place;
 - (ii) all crew members and maintenance personnel concerned have given their prior consent; and
 - (iii) such audio recordings are used only for maintaining or improving safety.
 - (1a) When flight recorder audio recordings are inspected for ensuring flight recorder serviceability, the operator shall ensure the privacy of these audio recordings and they shall not be disclosed or used for purposes other than ensuring flight recorder serviceability.
 - (2) Flight parameters or data link messages recorded by a flight recorder shall not be used for purposes other than for the investigation of an accident or an incident which is subject to mandatory reporting, unless such recordings are:
 - (i) used by the operator for airworthiness or maintenance purposes only;
 - (ii) de-identified; or
 - (iii) disclosed under secure procedures.
 - (3) Except for ensuring flight recorder serviceability, images of the flight crew compartment that are recorded by a flight recorder shall not be disclosed or used unless:
 - (i) a procedure related to the handling of such image recordings is in place;
 - (ii) all crew members and maintenance personnel concerned have given their prior consent; and
 - (iii) such image recordings are used only for maintaining or improving safety.
 - (3a) When images of the flight crew compartment that are recorded by a flight recorder are inspected for ensuring the serviceability of the flight recorder, then:
 - (i) these images shall not be disclosed or used for purposes other than for ensuring flight recorder serviceability; and
 - (ii) if body parts of crew members are likely to be visible on the images, the operator shall ensure the privacy of these images.’;

2. point NCC.OP.225 is replaced by the following:

‘NCC.OP.225 Approach and landing conditions — aeroplanes

Before commencing an approach to land, the pilot-in-command shall be satisfied that, according to the information available, the weather at the aerodrome or the operating site and

the condition of the runway intended to be used would not prevent a safe approach, landing or missed approach.’;

3. the following point NCC.OP.226 is inserted:

‘NCC.OP.226 Approach and landing conditions — helicopters

Before commencing an approach to land, the pilot-in-command shall be satisfied that, according to the information available, the weather at the aerodrome or the operating site and the condition of the final approach and take-off area (FATO) intended to be used would not prevent a safe approach, landing or missed approach.’

F. Annex VII (Part-NCO) to Commission Regulation (EU) No 965/2012 is amended as follows:

1. point NCO.OP.205 is replaced by the following:

‘NCO.OP.205 Approach and landing conditions — aeroplanes

Before commencing an approach to land, the pilot-in-command shall be satisfied that, according to the information available, the weather at the aerodrome or the operating site and the condition of the of the runway intended to be used would not prevent a safe approach, landing or missed approach.’;

2. the following point NCO.OP.206 is inserted:

‘NCO.OP.206 Approach and landing conditions — helicopters

Before commencing an approach to land, the pilot-in-command shall be satisfied that, according to the information available, the weather at the aerodrome or the operating site and the condition of the final approach and take-off area (FATO) intended to be used would not prevent a safe approach, landing or missed approach.’

G. Annex VIII (Part-SPO) to Commission Regulation (EU) No 965/2012 is amended as follows:

1. point SPO.GEN.145 is replaced by the following:

‘SPO.GEN.145 Handling of flight recorder recordings: preservation, production, protection and use

- (a) Following an accident, a serious incident or an occurrence identified by the investigating authority, the operator of an aircraft shall preserve the original recorded data of the flight recorders for a period of 60 days or until otherwise directed by the investigating authority.
- (b) The operator shall conduct operational checks and evaluations of recordings to ensure the continued serviceability of the flight recorders which are required to be carried.
- (c) The operator shall ensure that the recordings of flight parameters and data link communication messages required to be recorded on flight recorders are preserved, except that, for the purpose of testing and maintaining these flight recorders, up to 1 hour of the oldest recorded data at the time of testing may be erased.
- (d) The operator shall keep and maintain up to date documentation that presents the necessary information to convert raw flight data into flight parameters expressed in engineering units.
- (e) The operator shall make available any flight recorder recordings that have been preserved, if so determined by the competent authority.
- (f) By way of derogation from Regulations (EU) No 996/2010 and (EU) 2016/679, and except for ensuring flight recorder serviceability:
 - (1) flight recorder audio recordings shall not be disclosed or used unless:
 - (i) a procedure related to the handling of such audio recordings and of their transcript is in place;
 - (ii) all crew members and maintenance personnel concerned have given their prior consent; and

- (iii) such audio recordings are used only for maintaining or improving safety.
- (1a) When flight recorder audio recordings are inspected for ensuring flight recorder serviceability, the operator shall ensure the privacy of these audio recordings and they shall not be disclosed or used for purposes other than ensuring flight recorder serviceability.
- (2) Flight parameters or data link messages recorded by a flight recorder shall not be used for purposes other than for the investigation of an accident or an incident that is subject to mandatory reporting, unless such recordings are:
 - (i) used by the operator for airworthiness or maintenance purposes only;
 - (ii) de-identified; or
 - (iii) disclosed under secure procedures.
- (3) Except for ensuring flight recorder serviceability, images of the flight crew compartment that are recorded by a flight recorder shall not be disclosed or used unless:
 - (i) a procedure related to the handling of such image recordings is in place;
 - (ii) all crew members and maintenance personnel concerned have given their prior consent; and
 - (iii) such image recordings are used only for maintaining or improving safety.
- (3a) When images of the flight crew compartment that are recorded by a flight recorder are inspected for ensuring the serviceability of the flight recorder, then:
 - (i) these images shall not be disclosed or used for purposes other than ensuring flight recorder serviceability; and
 - (ii) if body parts of crew members are likely to be visible on the images, the operator shall ensure the privacy of these images.’;

2. point SPO.OP.210 is replaced by the following:

‘SPO.OP.210 Approach and landing conditions — aeroplanes

Before commencing an approach to land, the pilot-in-command shall be satisfied that, according to the information available, the weather at the aerodrome or the operating site and the condition of the runway intended to be used would not prevent a safe approach, landing or missed approach.’;

3. the following point SPO.OP.211 is inserted:

‘SPO.OP.211 Approach and landing conditions — helicopters

Before commencing an approach to land, the pilot-in-command shall be satisfied that, according to the information available, the weather at the aerodrome or the operating site and the condition of the final approach and take-off area (FATO) intended to be used would not prevent a safe approach, landing or missed approach.’;

4. the following point SPO.IDE.A.146 is inserted:

‘SPO.IDE.A.146 Lightweight flight recorder

- (a) Turbine-engined aeroplanes with an MCTOM of 2 250 kg or more and aeroplanes with an MOPSC of more than 9 shall be equipped with a flight recorder if the following conditions are met:
 - (1) they are not within the scope of point SPO.IDE.A.145(a);
 - (2) they are used for commercial operations; and
 - (3) they are first issued with an individual CofA on or after [date of publication of the amending regulation + 3 years].
 - (b) The flight recorder shall record, by means of flight data or images, information that is sufficient to determine the flight path and aircraft speed.
 - (c) The flight recorder shall be capable of retaining the flight data and the images recorded during at least the preceding 5 hours.
 - (d) The flight recorder shall automatically start to record prior to the aeroplane being capable of moving under its own power and shall stop automatically after the aeroplane is no longer capable of moving under its own power.
 - (e) If the flight recorder records images or audio of the flight crew compartment, then a function shall be provided which can be operated by the pilot-in-command and which modifies image and audio recordings made before the operation of this function, so that these recordings cannot be retrieved using normal replay or copying techniques.’;
5. the following point SPO.IDE.H.146 is inserted:

‘SPO.IDE.H.146 Lightweight flight recorder

- (a) Turbine-engined helicopters with an MCTOM of 2 250 kg or more shall be equipped with a flight recorder if the following conditions are met:
 - (1) they are within the scope of point SPO.IDE.H.145(a);
 - (2) they are used for commercial operations; and
 - (3) they are first issued with an individual CofA on or after [date of publication of the amending regulation + 3 years].
- (b) The flight recorder shall record, by means of flight data or images, information that is sufficient to determine the flight path and aircraft speed.
- (c) The flight recorder shall be capable of retaining the flight data and the images recorded during at least the preceding 5 hours.
- (d) The flight recorder shall automatically start to record prior to the helicopter being capable of moving under its own power and shall stop automatically after the helicopter is no longer capable of moving under its own power.
- (e) If the flight recorder records images or audio of the flight crew compartment, then a function shall be provided which can be operated by the pilot-in-command and which modifies image and audio recordings made before the operation of this function, so that these recordings cannot be retrieved using normal replay or copying techniques.’