

COMMISSION IMPLEMENTING REGULATION (EU) 2021/2237**of 15 December 2021****amending Regulation (EU) No 965/2012 as regards the requirements for all-weather operations and for flight crew training and checking**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 ⁽¹⁾, and in particular Articles 23(1), 27(1) and 31 thereof,

Whereas:

- (1) Operators and personnel that are involved in the operation of aircraft, as well as national competent authorities, should comply with the relevant essential requirements for air operations set out in Regulation (EU) 2018/1139.
- (2) Commission Regulation (EU) No 965/2012 ⁽²⁾ lays down detailed rules for air operations. The existing rules regulating all-weather operations should be updated to ensure that they reflect recent technological advancements in new airborne systems and the best practices in the domain of air operations.
- (3) To ensure a high level of civil aviation safety in the Union, it is necessary to address all-weather operations in all relevant aviation domains, including initial airworthiness, air operations, flight crew licensing and aerodromes and take into account worldwide aviation experience and scientific and technical progress in air operations. Therefore, the new rules should improve harmonisation with the United States Federal Aviation Administration requirements and include in Union law as much as feasible the latest amendments to the standards adopted by the International Civil Aviation Organization (ICAO), namely ICAO Annex 6, Part I (11th edition), Part II (10th edition) and Part III (9th edition), regarding all-weather operations and the instrument approach terminology.
- (4) In addition, safe helicopter operations under instrument flight rules (IFR) should be enabled, including the use of point-in-space approaches and departures. So far, helicopter operations have been taking place essentially under visual flight rules, therefore helicopter-operating rules were further developed. However, new helicopter-specific point-in-space approaches and departures, as well as low-level helicopter routes, are currently available, allowing the helicopters to fly under IFR. Consequently, the operating rules should be changed accordingly.
- (5) To improve safety in a cost-effective way, new training requirements on specialised operations (SPO), on multi-pilot operations with helicopters, on the greater use of simulators as well as on greater variety of events used in training and checking in helicopter commercial air transport (CAT), should be set out.
- (6) The new rules should be performance- and risk-based, in order to be resilient to continuous technological progress. They should not be technology-dependent and may accommodate future changes, thus avoiding dependency on particular technological solutions.

⁽¹⁾ OJ L 212, 22.8.2018, p. 1.

⁽²⁾ Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1).

- (7) The new rules should allow efficiency gains based on technological advancements and the operational use of new, advanced technologies such as enhanced flight vision systems (EFVS), as well as the application of some advanced new operational procedures, which support all-weather operations. The use of innovative training tools for the purpose of flight crew training and checking should also be sought.
- (8) The new rules on all-weather operations and flight crew training and checking should contribute to allow for a level playing field for all actors in the internal aviation market of the Union and improve the competitiveness of the Union's aviation industry.
- (9) The aerodrome operating minima should be aligned as much as possible between CAT operations, non-commercial operations with complex motor-powered aircraft (NCC) and specialised operations (SPO). The requirements for all-weather operations for non-commercial operations with other-than complex motor-powered aircraft (NCO) should also be simplified to incentivise the use of instrument flight rules.
- (10) Based on operational experience and considering the nature of operations and the lower risks involved, some alleviations to flight crew training and checking requirements, which were previously available only for CAT, should be extended to SPO and NCC operations. Operational developments have shown that the required level of safety can be maintained with less stringent and more flexible requirements. Similarly, some increased flexibility regarding operations with different aircraft types or variants should be provided for small helicopter operators. Small simple single-engine helicopter types that behave in a similar way in normal and emergency conditions should also benefit from some of the simplifications that are currently available within an aeroplane class rating.
- (11) Regulation (EU) No 965/2012 should, therefore, be amended accordingly to fully implement the essential requirements for air operations of Annex V to Regulation (EU) 2018/1139.
- (12) The European Union Aviation Safety Agency has prepared draft implementing rules and submitted them to the Commission with Opinion No 02/2021 ⁽³⁾ in accordance with Article 76(1) of Regulation (EU) 2018/1139.
- (13) The measures provided for in this Regulation are in accordance with the opinion of the committee established in accordance with Article 127 of Regulation (EU) 2018/1139,

HAS ADOPTED THIS REGULATION:

Article 1

Amendments to Regulation (EU) No 965/2012

Regulation (EU) No 965/2012 is amended as follows:

- (1) in Article 5(2), point (a)(iv) is replaced by the following:
'(iv) low-visibility operations (LVOs) or operations with operational credits;';
- (2) Annexes I, II, III, IV, V, VI, VII and VIII are amended in accordance with the Annex to this Regulation.

Article 2

Date of entry into force and application

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 30 October 2022.

⁽³⁾ <https://www.easa.europa.eu/document-library/opinions>

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 15 December 2021.

For the Commission
The President
Ursula VON DER LEYEN

ANNEX

Annexes I, II, III, IV, V, VI, VII and VIII to Regulation (EU) No 965/2012 are amended as follows:

(1) Annex I is amended as follows:

(a) the following point (6) is inserted:

‘(6) ‘aerodrome operating minima’ means the limits of usability of an aerodrome for:

- (a) take-off, expressed in terms of runway visual range (RVR) and/or visibility and, if necessary, ceiling ;
- (b) landing in 2D instrument approach operations, expressed in terms of visibility and/or RVR, minimum descent altitude/height (MDA/H) and, if necessary, ceiling;
- (c) landing in 3D instrument approach operations, expressed in terms of visibility and/or RVR and decision altitude/height (DA/H) as appropriate to the type and/or category of the operation’;

(b) point (11) is deleted;

(c) points (13) to (16) are deleted;

(d) the following point (18a) is inserted:

‘(18a) ‘ceiling’ means the height above the ground or water of the base of the lowest layer of cloud below 6 000 m (20 000 ft) covering more than half the sky’;

(e) point (20) is replaced by the following:

‘(20) ‘circling’ means the visual phase of a circling approach operation’;

(f) the following point (20a) is inserted:

‘(20a) ‘circling approach operation’ means a Type A instrument approach operation to bring an aircraft into position for landing on a runway/final approach and take-off area (FATO) that is not suitably located for a straight-in approach’;

(g) point (27) is replaced by the following:

‘(27) ‘continuous descent final approach (CDFA)’ means a technique, consistent with stabilised approach procedures, for flying the final approach segment (FAS) of an instrument non-precision approach (NPA) procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height:

- (a) for straight-in approach operations, to a point approximately 15 m (50 ft) above the landing runway threshold or the point where the flare manoeuvre begins; or
- (b) for circling approach operations, until MDA/H or visual flight manoeuvre altitude/height is reached’;

(h) the following point (35a) is inserted:

‘(35a) ‘decision altitude (DA) or decision height (DH)’ means a specified altitude or height in a 3D instrument approach operation at which a missed approach procedure must be initiated if the required visual reference to continue the approach has not been established’;

(i) point (46) is replaced by the following:

‘(46) ‘enhanced flight vision system (EFVS)’ is an electronic means to provide the flight crew with a real-time sensor-derived or enhanced display of the external scene topography (the natural or man-made features of a place or region especially in a way to show their relative positions and elevation) through the use of imaging sensors; an EFVS is integrated with a flight guidance system and is implemented on a head-up display or an equivalent display system; if an EFVS is certified according to the applicable airworthiness requirements and an operator holds the necessary specific approval (when required), then it may be used for EFVS operations and may allow operations with operational credits’;

(j) the following points (46a) and (46b) are inserted:

‘(46a) ‘EFVS operation’ means an operation in which visibility conditions require an EFVS to be used instead of natural vision in order to perform an approach or landing, identify the required visual references or conduct a roll-out;

(46b) ‘EFVS 200 operation’ means an operation with an operational credit in which visibility conditions require an EFVS to be used down to 200 ft above the FATO or runway threshold. From that point to land, natural vision is used. The RVR shall not be less than 550 m;’;

(k) point (47) is replaced by the following:

‘(47) ‘enhanced vision system (EVS)’ is an electronic means to provide the flight crew with a real-time image of the actual external scene topography (the natural or man-made features of a place or region especially in a way to show their relative positions and elevation) through the use of imaging sensors;’;

(l) the following point (48b) is inserted:

‘(48b) ‘final approach segment (FAS)’ means that segment of an instrument approach procedure (IAP) in which alignment and descent for landing are accomplished;’;

(m) the following point (52a) is inserted:

‘(52a) ‘go-around’ means a transition from an approach operation to a stabilised climb. This includes manoeuvres conducted at or above the MDA/H or DA/H, or below the DA/H (balked landings);’;

(n) point (55) is replaced by the following:

‘(55) ‘head-up display landing system (HUDLS)’ means the total airborne system which provides head-up guidance to the pilot to enable the pilot to either control the aircraft or to monitor the autopilot during take-off (if applicable), approach and landing (and roll-out if applicable), or go-around. It includes all the sensors, computers, power supplies, indications and controls;’;

(o) point (56) is deleted;

(p) the following points (69d) and (69e) are inserted:

‘(69d) ‘instrument approach operation’ means an approach and landing using instruments for navigation guidance based on an instrument approach procedure (IAP). There are two methods for executing instrument approach operations:

(a) a two-dimensional (2D) instrument approach operation, using lateral navigation guidance only; and

(b) a three-dimensional (3D) instrument approach operation, using both lateral and vertical navigation guidance;

(69e) ‘instrument approach procedure (IAP)’ means a series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix or, where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en-route obstacle clearance criteria apply. IAPs are classified as follows:

(a) non-precision approach (NPA) procedure, which means an IAP designed for 2D instrument approach operations Type A;

(b) approach procedure with vertical guidance (APV) means a performance-based navigation (PBN) IAP designed for 3D instrument approach operations Type A;

(c) precision approach (PA) procedure means an IAP based on navigation systems designed for 3D instrument approach operations Type A or B;’;

(q) the following point (72b) is inserted:

‘(72b) ‘line check’ means a check conducted by the operator and completed by the pilot or the technical crew member to demonstrate competence in carrying out normal line operations described in the operations manual;’;

(r) points (74) and (75) are replaced by the following:

‘(74) ‘low-visibility operations (LVOs)’ means approach or take-off operations on a runway with a runway visual range less than 550 m or with a decision height less than 200 ft;

(75) ‘low-visibility take-off (LVTO)’ means a take-off with an RVR less than 550 m;’;

(s) point (76) is deleted;

(t) the following point (78c) is inserted:

‘(78c) ‘minimum descent altitude (MDA) or minimum descent height (MDH)’ means a specified altitude or height in a 2D instrument approach operation or circling approach operation below which descent must not be made without the required visual reference;’;

(u) point (83) is deleted;

(v) the following point (85a) is inserted:

‘(85a) ‘obstacle clearance altitude (OCA) or obstacle clearance height (OCH)’ means the lowest altitude or the lowest height above the elevation of the relevant runway threshold or the aerodrome elevation, as applicable, used in establishing compliance with the appropriate obstacle clearance criteria;’;

(w) the following point (91a) is inserted:

‘(91a) ‘operational credit’ means a credit for operations with an advanced aircraft enabling lower aerodrome operating minima than would normally be established by the operator for a basic aircraft, based upon the performance of advanced aircraft systems utilising the available external infrastructure. Lower operating minima may include a lower decision height/altitude or minimum descent height/altitude, reduced visibility requirements or reduced ground facilities or a combination of these;’;

(x) point (92) is replaced by the following:

‘(92) ‘operator proficiency check’ means a check conducted by the operator and completed by the pilot or the technical crew member to demonstrate competence in carrying out normal, abnormal and emergency procedures;’;

(y) the following points (120c), (120d) and (120e) are inserted:

‘(120c) ‘training to proficiency’ means training designed to achieve end-state performance objectives, providing sufficient assurance that the trained individual is capable of consistently carrying out specific tasks safely and effectively;

(120d) ‘Type A instrument approach operation’ means an instrument approach operation with an MDH or a DH at or above 250 ft;

(120e) ‘Type B instrument approach operation’ means an operation with a DH below 250 ft. Type B instrument approach operations are categorised as:

(a) Category I (CAT I): a DH not lower than 200 ft and with either a visibility not less than 800 m or an RVR not less than 550 m;

(b) Category II (CAT II): a DH lower than 200 ft but not lower than 100 ft, and an RVR not less than 300 m;

(c) Category III (CAT III): a DH lower than 100 ft or no DH, and an RVR less than 300 m or no RVR limitation;’;

(z) the following point (124a) is inserted:

‘(124a) ‘visibility (VIS)’ means visibility for aeronautical purposes, which is the greater of:

- (a) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognised when observed against a bright background; and
- (b) the greatest distance at which lights in the vicinity of 1 000 candelas can be seen and identified against an unlit background;’;

(aa) points (125) and (126) are replaced by the following:

‘(125) ‘visual approach operation’ means an approach operation by an IFR flight when either a part or all parts of an IAP is (are) not completed and the approach operation is executed with visual reference to terrain;

(126) ‘weather-permissible aerodrome’ means an adequate aerodrome where, for the anticipated time of use, meteorological reports, or forecasts, or any combination thereof, indicate that the meteorological conditions will be at or above the required aerodrome operating minima, and the runway surface condition reports indicate that a safe landing will be possible;’.

(2) in Annex II, 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: _____; Email: _____				
AOC ⁽²⁾ :		Operator name ⁽³⁾ :		Date ⁽⁴⁾ : Signature:
Dba trading name Operations specifications #:				
Aircraft model ⁽⁵⁾ : Registration marks ⁽⁶⁾ :				
Types of operations: Commercial air transport ☐ Passengers ☐ Cargo ☐ Others ⁽⁷⁾ : _____				
Area of operation ⁽⁸⁾ :				
Special limitations ⁽⁹⁾ :				
Specific approvals:	Yes	No	Specification ⁽¹⁰⁾	Remarks
Dangerous goods:	☐	☐		
Low-visibility operations				
Take-off	☐	☐	RVR ⁽¹¹⁾ :... m	
Approach and landing	☐	☐	CAT ⁽¹²⁾ :... DA/H: ft, RVR:... m	
Operational credits	☐	☐	CAT ⁽¹³⁾ :...DA/H: ft, RVR:... m	
RVSM ⁽¹⁴⁾ ☐ N/A	☐	☐		
ETOPS ⁽¹⁵⁾ ☐ N/A	☐	☐	Maximum diversion time ⁽¹⁶⁾ : min.	
Complex navigation specifications for PBN operations ⁽¹⁷⁾	☐	☐		⁽¹⁸⁾
Minimum navigation performance specification	☐	☐		
Operations of single-engined turbine aeroplane at night or in IMC (SET-IMC)	☐	☐	⁽¹⁹⁾	
Helicopter operations with the aid of night vision imaging systems	☐	☐		
Helicopter hoist operations	☐	☐		
Helicopter emergency medical service operations	☐	☐		
Helicopter offshore operations	☐	☐		
Cabin crew training ⁽²⁰⁾	☐	☐		

Issue of CC attestation ⁽²¹⁾	☐	☐		
Use of type B EFB applications	☐	☐	⁽²²⁾	
Continuing airworthiness	☐	☐	⁽²³⁾	
Others ⁽²⁴⁾				

⁽¹⁾ Telephone contact details of the competent authority, including the country code. Email to be provided as well as fax 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⁾ The registration marks are listed either 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 approved minimum take-off RVR in metres. One line per approval may be used if different approvals are granted.
⁽¹²⁾ Insertion of applicable precision approach category: CAT II or CAT III. Insertion of minimum RVR in metres and DH in feet. One line is used per listed approach category.
⁽¹³⁾ Insertion of applicable operational credit: SA CAT I, SA CAT II, EFVS, etc. Insertion of minimum RVR in metres and DH in feet. One line is used per listed operational credit.
⁽¹⁴⁾ The Not Applicable (N/A) box may be checked only if the aircraft maximum ceiling is below FL290.
⁽¹⁵⁾ 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.
⁽¹⁶⁾ The threshold distance may also be listed (in NM), as well as the engine type.
⁽¹⁷⁾ 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' or 'Remarks' columns, or in both. 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.
⁽¹⁸⁾ Specify if the specific approval is limited to certain runway ends or aerodromes, or both.
⁽¹⁹⁾ Insertion of the particular airframe or engine combination.
⁽²⁰⁾ 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.
⁽²¹⁾ Approval to issue cabin crew attestations as specified in Annex V (Part-CC) to Regulation (EU) No 1178/2011.
⁽²²⁾ Insertion of the list of type B EFB applications together with the reference of the EFB hardware (for portable EFBs). This list is contained either 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.
⁽²³⁾ The name of the person or 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.
⁽²⁴⁾ 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 or 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).

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(3) Annex III is amended as follows:

(a) point ORO.FC.100 is amended as follows:

(i) the following point (f) is inserted:

‘(f) Specific requirements for helicopter operations

If the helicopter is operated with a crew of two pilots, each pilot shall either:

- (1) hold a certificate of satisfactory completion of a multi-crew cooperation (MCC) course in helicopters in accordance with Regulation (EU) No 1178/2011; or
- (2) have at least 500 hours of flight time as a pilot in multi-pilot operations.’;

(ii) point (d) is replaced by the following:

‘(d) The flight crew member may be relieved in flight of his or her duties at the controls by another suitably qualified flight crew member.’;

(b) point ORO.FC.105 is replaced by the following:

‘ORO.FC.105 Designation as pilot-in-command/commander

- (a) In accordance with point 8.6 of Annex V to Regulation (EU) 2018/1139, one pilot amongst the flight crew, qualified as pilot-in-command in accordance with Annex I (Part-FCL) to Regulation (EU) No 1178/2011, shall be designated by the operator as pilot-in-command or, for commercial air transport operations, as commander.
- (b) The operator shall only designate a flight crew member to act as pilot-in-command/commander if all of the following apply:
 - (1) the flight crew member has the minimum level of experience specified in the operations manual;
 - (2) the flight crew member has adequate knowledge of the route or area to be flown and of the aerodromes, including alternate aerodromes, facilities and procedures to be used;
 - (3) in the case of multi-crew operations, the flight crew member has completed an operator’s command course if upgrading from co-pilot to pilot-in-command/commander.
- (c) In the case of commercial operations of aeroplanes and helicopters, the pilot-in-command/commander or the pilot to whom the conduct of the flight may be delegated shall have had initial familiarisation training on the route or area to be flown and on the aerodromes, facilities and procedures to be used and shall maintain this knowledge as follows:
 - (1) The validity of the aerodrome knowledge shall be maintained by operating at least once on the aerodrome within a 12 calendar months’ period.
 - (2) The route or area knowledge shall be maintained by operating at least once to the route or area within a 36 months’ period. In addition, refresher training is required regarding route or area knowledge if not operating on a route or area for 12 months within the 36-month period.
- (d) Notwithstanding point (c), in the case of operations under VFR by day with performance class B and C aeroplanes and helicopters, familiarisation training on the route and aerodromes may be replaced by area familiarisation training.’;

(c) point ORO.FC.125 is replaced by the following:

‘ORO.FC.125 Differences training, familiarisation, equipment and procedure training

- (a) Flight crew members shall complete differences training or familiarisation when required by Annex I (Part-FCL) to Regulation (EU) No 1178/2011.
- (b) Flight crew members shall complete equipment and procedure training when changing equipment or changing procedures requiring additional knowledge on types or variants currently operated.
- (c) The operations manual shall specify when such differences training or familiarisation or equipment and procedure training is required.’;

(d) in point ORO.FC.130, point (a) is replaced by the following:

‘(a) Each flight crew member shall complete annual recurrent flight and ground training relevant to the type or variant, and associated equipment of aircraft on which he or she operates, including training on the location and use of all emergency and safety equipment carried on board the aircraft.’;

(e) point ORO.FC.140 is replaced by the following:

‘ORO.FC.140 Operation on more than one type or variant

(a) Flight crew members that operate more than one type or variant of aircraft shall comply with the requirements prescribed in this Subpart for each type or variant, unless credits related to the training, checking, and recent experience requirements are defined in the mandatory part of the operational suitability data established in accordance with Regulation (EU) No 748/2012 for the relevant types or variants.

(b) The operator may define groups of single-engined helicopter types. An operator proficiency check on one type shall be valid for all the other types within the group if both of the following conditions are met:

(1) the group either includes only single-engined turbine helicopters operated under VFR or it includes only single-engined piston helicopters operated under VFR;

(2) for CAT operations, at least two operator proficiency checks per type shall be conducted within a 3-year cycle.

(c) For specialised operations, elements of the aircraft/FSTD training and operator proficiency check that cover the relevant aspects associated with the specialised task and are not related to the type or group of types may be credited towards the other groups or types, based on a risk assessment performed by the operator.

(d) For operations on more than one helicopter type or variant that are used for conducting sufficiently similar operations, if line checks rotate between types or variants, each line check shall revalidate the line check for the other helicopter types or variants.

(e) Appropriate procedures and any operational restrictions shall be specified in the operations manual for any operation on more than one type or variant.’;

(f) point ORO.FC.145 is amended as follows:

(i) points (c) and (d) are replaced by the following:

‘(c) In the case of CAT operations, training and checking programmes, including syllabi and the use of the means to deliver the programme such as individual flight simulation training devices (FSTDs) and other training solutions, shall be approved by the competent authority.

(d) The FSTD used to meet the requirements of this Subpart shall be qualified in accordance with Regulation (EU) No 1178/2011 and it shall replicate the aircraft used by the operator, as far as practicable. Differences between the FSTD and the aircraft shall be described and addressed through a briefing or training, as appropriate.’;

(ii) the following points (f) and (g) are added:

‘(f) The operator shall monitor the validity of each recurrent training and checking.

(g) The validity periods required in this Subpart shall be counted from the end of the month in which the recency, training or check was completed.’;

(g) point ORO.FC.146 is amended as follows:

(i) point (b) is replaced by the following:

‘(b) In the case of flight and flight simulation training, checking and assessment, the personnel that provide the training and conduct the checking or assessment shall be qualified in accordance with Annex I (Part-FCL) to Regulation (EU) No 1178/2011. Additionally, the personnel providing training and conducting checking towards specialised operations shall be suitably qualified for the relevant operation.’;

- (ii) point (d) is replaced by the following:
 - ‘(d) Notwithstanding point (b), the line evaluation of competence may be conducted by a suitably qualified commander nominated by the operator that is standardised in EBT concepts and the assessment of competencies (line evaluator).’;
- (iii) the following points (e), (f), (g) and (h) are added:
 - ‘(e) Notwithstanding point (b), the aircraft/FSTD training and the operator proficiency check may be conducted by a suitably qualified commander holding a FI/TRI/SFI certificate and nominated by the operator for any of the following operations:
 - (1) CAT operations of helicopters meeting the criteria defined in point ORO.FC.005(b)(2);
 - (2) CAT operations of other than complex motor-powered helicopters by day and over routes navigated by reference to visual landmarks;
 - (3) CAT operations of performance class B aeroplanes that do not meet the criteria defined in point ORO.FC.005(b)(1).
 - (f) Notwithstanding point (b), the aircraft/FSTD training and the demonstration of competence/operator proficiency check may be conducted by a suitably qualified pilot-in-command/commander nominated by the operator for any of the following operations:
 - (1) specialised operations;
 - (2) CAT operations of aeroplanes meeting the criteria defined in point ORO.FC.005(b)(2).
 - (g) Notwithstanding point (b), the line check may be conducted by a suitably qualified commander nominated by the operator.
 - (h) The operator shall inform the competent authority about the persons nominated under points (e) to (g).’;
- (h) in point ORO.FC.200, point (d) is replaced by the following:
 - ‘(d) Specific requirements for helicopter operations
 - For all operations of helicopters with an MOPSC of more than 19 and for operations under IFR of helicopters with an MOPSC of more than 9, the minimum flight crew shall be two pilots.’;
- (i) point ORO.FC.202 is amended as follows:
 - (i) the introductory wording is replaced by the following:

‘In order to be able to fly under IFR or at night with a minimum flight crew of one pilot, the following shall be complied with.’;
 - (ii) point (b) is replaced by the following:

‘(b) INTENTIONALLY LEFT BLANK’;
- (j) point ORO.FC.220 is amended as follows:
 - (i) point (b) is replaced by the following:

‘(b) Once an operator conversion course has been commenced, the flight crew member shall not be assigned to flying duties on another type or class of aircraft until the course is completed or terminated. Crew members operating only performance class B aeroplanes may be assigned to flights on other types of performance class B aeroplanes during conversion courses to the extent necessary to maintain the operation. Crew members may be assigned to flights on single-engined helicopters during an operator conversion course on a single-engined helicopter, provided that the training is unaffected.’;
 - (ii) the following point (f) is added:

‘(f) If operational circumstances, such as applying for a new AOC or adding a new aircraft type or class to the fleet, do not allow the operator to comply with the requirements in (d), the operator may develop a specific conversion course, to be used temporarily for a limited number of pilots.’;

- (k) point ORO.FC.230 is replaced by the following:

‘ORO.FC.230 Recurrent training and checking

- (a) Each flight crew member shall complete recurrent training and checking relevant to the type or variant, and associated equipment of aircraft on which they operate.
- (b) *Operator proficiency check*
- (1) Each flight crew member shall complete operator proficiency checks as part of the normal crew complement.
 - (2) When the flight crew member will be required to operate under IFR, the operator proficiency check shall be conducted without external visual reference, as appropriate.
 - (3) The validity period of the operator proficiency check shall be 6 calendar months. For operations under VFR by day of performance class B aeroplanes that are conducted during seasons not longer than 8 consecutive months, one operator proficiency check shall be sufficient. The proficiency check shall be undertaken before commencing CAT operations.
- (c) *Line check*
- Each flight crew member shall complete a line check on the aircraft. The validity period of the line check shall be 12 calendar months.
- (d) *Emergency and safety equipment training and checking*
- Each flight crew member shall complete recurrent training and checking on the location and use of all emergency and safety equipment carried on board the aircraft. The validity period of an emergency and safety equipment training and checking shall be 12 calendar months.
- (e) *CRM training*
- (1) Elements of CRM shall be integrated into all appropriate phases of the recurrent training.
 - (2) Each flight crew member shall undergo specific modular CRM training. All major topics of CRM training shall be covered by distributing modular training sessions as evenly as possible over each 3-year period.
- (f) Each flight crew member shall undergo ground training and flight training in an FSTD or an aircraft, or a combination of FSTD and aircraft training, at least every 12 calendar months.’;
- (l) point ORO.FC.235 is replaced by the following:

‘ORO.FC.235 Pilot qualification to operate in either pilot’s seat — aeroplanes

- (a) Commanders of aeroplanes whose duties require them to operate in either pilot’s seat and carry out the duties of a co-pilot, or commanders required to conduct training or checking duties shall complete additional training and checking to ensure that they are proficient in conducting the relevant normal, abnormal and emergency procedures from either seat. Such training and checking shall be specified in the operations manual. The checking may be conducted together with the operator proficiency check prescribed in ORO.FC.230(b) or in the EBT programme prescribed in ORO.FC.231.
- (b) The additional training and checking shall include at least the following:
- (1) an engine failure during take-off;
 - (2) a one-engine-inoperative approach and go-around; and
 - (3) a one-engine-inoperative landing.

- (c) The validity period shall be 12 calendar months. For operators with an approved EBT programme, the validity is determined by the assessment and training topics in accordance with ORO.FC.232.
 - (d) When operating in the co-pilot's seat, the checks required by ORO.FC.230 or the assessment and training required by ORO.FC.231 for operating in the commander's seat shall, in addition, be valid and current.
 - (e) The pilot relieving the commander shall have demonstrated, concurrent with the operator proficiency checks prescribed in ORO.FC.230(b) or the assessment and training required by ORO.FC.231, practice of drills and procedures that would not normally be his or her responsibility. Where the differences between left- and right-hand seats are not significant, practice may be conducted in either seat.
 - (f) The pilot, other than the commander, occupying the commander's seat shall demonstrate practice of drills and procedures, concurrent with the operator proficiency checks prescribed in ORO.FC.230(b) or the assessment and training required by ORO.FC.231, which are the commander's responsibility acting as pilot monitoring. Where the differences between left- and right-hand seats are not significant, practice may be conducted in either seat.;
- (m) the following point ORO.FC.236 is inserted:

'ORO.FC.236 Pilot qualification to operate in either pilot's seat — helicopters

- (a) Helicopter pilots whose duties require them to operate in either pilot's seat shall complete additional training and checking to ensure that they are proficient in conducting the relevant normal, abnormal and emergency procedures from either seat. The validity period of this qualification shall be 12 calendar months.
 - (b) Current FIs or TRIs on the relevant type are considered to fulfil the requirement of point (a) if they have had a FI or TRI activity in the last 6 months on that type and on the helicopter.;
- (n) point ORO.FC.240 is amended as follows:
- (i) point (b) is replaced by the following:
'(b) INTENTIONALLY LEFT BLANK';
 - (ii) point (c) is replaced by the following:
'(c) Point (a) shall not apply to operations of performance class B aeroplanes if they are limited to single-pilot classes of reciprocating engine aeroplanes under VFR by day.;
- (o) point ORO.FC.A.245 is amended as follows:
- (i) point (a) is replaced by the following:
'(a) The aeroplane operator having appropriate experience may substitute one or more of the following training and checking requirements for flight crew by an alternative training and qualification programme (ATQP), approved by the competent authority:
 - (1) set out in point SPA.LVO.120 on flight crew training and qualifications;
 - (2) set out in point ORO.FC.220 on conversion training and checking;
 - (3) set out in point ORO.FC.125 on differences training, familiarisation, equipment and procedure training;
 - (4) set out in point ORO.FC.205 on command course;
 - (5) set out in point ORO.FC.230 on recurrent training and checking; and
 - (6) set out in point ORO.FC.240 on operation on more than one type or variant.;
 - (ii) points (d) and (e) are replaced by the following:
'(d) In addition to the checks required by points ORO.FC.230 and FCL.060 of Annex I (Part-FCL) to Regulation (EU) No 1178/2011, each flight crew member shall complete a line oriented evaluation (LOE) conducted in an FSTD. The validity period of an LOE shall be 12 calendar months. The LOE is completed when both of the following conditions are met:
 - (1) the syllabus of the LOE is completed; and

- (2) the flight crew member has demonstrated an acceptable level of performance.
- (e) After 2 years of operating with an approved ATQP, the operator may, with the approval of the competent authority, extend the validity periods of the checks referred to in point ORO.FC.230 as follows:
 - (1) Operator proficiency check to 12 calendar months.
 - (2) Line check to 24 calendar months.
 - (3) Emergency and safety equipment checking to 24 calendar months.;
- (iii) the following points (f) and (g) are added:
 - (f) Each flight crew member shall undergo specific modular CRM training. All major topics of CRM training shall be covered by distributing modular training sessions as evenly as possible over each 3-year period.
 - (g) The ATQP programme shall include 48 hours on an FSTD for each flight crew member, distributed evenly over a 3-year programme. The operator may reduce the number of FSTD hours, but no lower than 36 hours, provided that it demonstrates that the level of safety that is achieved is equivalent to that of the programme the ATQP may substitute in accordance with point (a).;
- (p) in point ORO.FC.H.250, point (a)(1) is replaced by the following:
 - (a) Holders of a CPL(H) (helicopter) shall only act as commanders in CAT operations on a single-pilot helicopter if:
 - (1) when operating under IFR, they have a minimum of 700 hours total flight time on helicopters, including 300 hours as pilot-in-command. The total flight time on helicopters shall include 100 hours under IFR. Up to 50 hours instrument time performed on an FFS(H) level B or FTD level 3 qualification or higher qualified for instrument training, may be credited towards the 100 hours. The 300 hours as pilot-in-command may be substituted by hours operating as co-pilot within an established multi-pilot crew system prescribed in the operations manual on the basis of 2 hours of flight time as co-pilot for 1 hour flight time as pilot-in command.;
- (q) the following points ORO.FC.320 and ORO.FC.325 are added before point ORO.FC.330:

‘ORO.FC.320 Operator conversion training and checking

The operator conversion course shall include an operator proficiency check.

ORO.FC.325 Equipment and procedure training and checking

If a flight crew member undergoes equipment and procedure training that requires training on a suitable FSTD or the aircraft, with regard to standard operating procedures related to a specialised operation, the flight crew member shall undergo an operator proficiency check.;

- (r) point ORO.FC.330 is replaced by the following:

‘ORO.FC.330 Recurrent training and checking — operator proficiency check

- (a) Each flight crew member shall complete recurrent training and operator proficiency checks. In the case of specialised operations, the recurrent training and checking shall cover the relevant aspects associated with the specialised tasks described in the operations manual.
- (b) Appropriate consideration shall be given when operations are undertaken under IFR or at night.
- (c) The validity period of the operator proficiency check shall be 12 calendar months.;

- (s) Appendix I is replaced by the following:

'Appendix I

DECLARATION					
in accordance with Commission Regulation (EU) No 965/2012 on air operations					
Operator Name: Place in which the operator has its principal place of business or, if the operator has no principal place of business, place in which the operator is established or residing and place from which the operations are directed: Name and contact details of the accountable manager:					
Aircraft operation					
Starting date of operation and applicability date of the change:					
Information on aircraft, operation and continuing airworthiness management organisation ⁽¹⁾ :					
Type(s) of aircraft, registration(s) and main base:					
Aircraft MSN ⁽²⁾	Aircraft type	Aircraft registration ⁽³⁾	Main base	Type(s) of operation ⁽⁴⁾	Organisation responsible for the continuing airworthiness management ⁽⁵⁾
The operator shall obtain a prior approval ⁽⁶⁾ or specific approval ⁽⁷⁾ for certain operations before conducting such operations.					
Where applicable, details of approvals held. Attach the list of specific approvals. Include: — specific approvals granted by a third country, if applicable; — name of operations conducted with operational credits (e.g. EFVS 200, SA CAT I, etc.).					
Where applicable, details of specialised operations authorisation held (attach authorisation(s), if applicable).					
Where applicable, list of alternative means of compliance (AltMoC) with references to the associated AMC they replace (attach AltMoC).					
Statements					
☐ The operator complies, and continues to comply, with the essential requirements set out in Annex V to Regulation (EU) 2018/1139 of the European Parliament and of the Council and with the requirements of Regulation (EU) No 965/2012.					
☐ The management system documentation, including the operations manual, shall comply with the requirements of Annex III (Part-ORO), Annex V (Part-SPA), Annex VI (Part-NCC) or Annex VIII (Part-SPO) to Commission Regulation (EU) No 965/2012 and all flights shall be made in accordance with the provisions of the operations manual as required by point ORO.GEN.110(b) of Part-ORO.					
☐ All operated aircraft shall hold: — a valid certificate of airworthiness in accordance with Commission Regulation (EU) No 748/2012 or, for aircraft registered in a third country, in accordance with ICAO Annex 8; and — when used for SPO activities, a valid lease agreement as per ORO.SPO.100.					

☐	All flight crew members shall hold a licence in accordance with Annex I to Commission Regulation (EU) No 1178/2011 as required by point ORO.FC.100(c) of Part-ORO, and cabin crew members shall, where applicable, be trained in accordance with Subpart CC of Part-ORO.
☐	(If applicable) The operator shall implement and demonstrate conformity to a recognised industry standard. Reference of the standard: Certification body: Date of the last conformity audit:
☐	The operator shall notify to the competent authority any changes in circumstances affecting its compliance with the essential requirements set out in Annex V to Regulation (EU) 2018/1139 and with the requirements of Commission Regulation (EU) No 965/2012 as declared to the competent authority through this declaration, and any changes to the information and lists of AltMoC included in and annexed to this declaration, as required by point ORO.GEN.120(a) of Part-ORO.
☐	The operator shall confirm that the information disclosed in this declaration is correct.
Date, name, and signature of the accountable manager'	
(¹) If there is not enough space to list the required information in the declaration, the information shall be listed in a separate annex. The annex shall be dated and signed. (²) Manufacturer serial number. (³) If the aircraft is also registered with an AOC holder, specify the AOC number of the AOC holder. (⁴) 'Type(s) of operation' refers to the type of operations conducted with this aircraft, e.g. non-commercial operations or specialised operations, e.g. aerial photography flights, aerial advertising flights, news media flights, television and movie flights, parachute operations, skydiving, maintenance check flights. (⁵) Information about the organisation responsible for the continuing airworthiness management shall include the name of the organisation, its address, and the approval reference. (⁶) (a) operations with any defective instrument or piece of equipment or item or function, under a minimum equipment list (MEL) (points ORO.MLR.105 (b), (f), and (j), NCC.IDE.A.105, NCC.IDE.H.105, SPO.IDE.A.105, and SPO.IDE.H.105). (b) Operations requiring prior authorisation or approval, including all of the following: — for specialised operations, wet lease-in and dry lease-in of aircraft registered in a third country (point ORO.SPO.100 (c)); — high-risk commercial specialised operations (point ORO.SPO.110); — non-commercial operations with aircraft with an MOPSC of more than 19, which are performed without an operating cabin crew member (point ORO.CC.100 (d)); — use of IFR operating minima that are lower than those published by the State (points NCC.OP.110 and SPO.OP.110); — refuelling with engine(s) and/or rotors turning (point NCC.OP.157); — specialised operations (SPO) without oxygen above 10 000 ft (point SPO.OP.195). (⁷) Operations in accordance with Annex V (Part-SPA) to Regulation (EU) No 965/2012, including Subparts B 'Performance-based navigation (PBN) operations', C 'Operations with specified minimum navigation performance (MNPS)', D 'Operations in airspace with reduced vertical separation minima (RVSM)', E 'Low-visibility operations (LVOs) and operations with operational credits', G 'Transport of dangerous goods', K 'Helicopter offshore operations' and N 'Helicopter point-in-space approaches and departures with reduced VFR minima'.	

(4) Annex IV is amended as follows:

(a) point CAT.GEN.MPA.100 is replaced by the following:

‘CAT.GEN.MPA.100 Crew responsibilities

(a) The crew member shall be responsible for the proper execution of his or her duties that are:

- (1) related to the safety of the aircraft and its occupants; and
- (2) specified in the instructions and procedures in the operations manual.

(b) The crew member shall:

- (1) report to the commander any fault, failure, malfunction or defect which the crew member believes may affect the airworthiness or safe operation of the aircraft including emergency systems, if not already reported by another crew member;
- (2) report to the commander any incident that endangered, or could have endangered, the safety of the operation, if not already reported by another crew member;
- (3) comply with the relevant requirements of the operator’s occurrence reporting schemes;
- (4) comply with all flight and duty time limitations (FTL) and rest requirements applicable to their activities;
- (5) when undertaking duties for more than one operator:
 - (i) maintain his or her individual records regarding flight and duty times and rest periods as referred to in the applicable FTL requirements;
 - (ii) provide each operator with the data needed to schedule activities in accordance with the applicable FTL requirements; and
 - (iii) provide each operator with the data needed regarding operations on more than one type or variant.

(c) The crew member shall not perform duties on an aircraft:

- (1) when under the influence of psychoactive substances or when unfit due to injury, fatigue, medication, sickness or other similar causes;
- (2) until a reasonable time period has elapsed after deep water diving or following blood donation;
- (3) if applicable medical requirements are not fulfilled;
- (4) if he or she is in any doubt of being able to accomplish his or her assigned duties; or
- (5) if he or she knows or suspects that he or she is suffering from fatigue as referred to in Annex V, point 7.5, to Regulation (EU) 2018/1139 or feels otherwise unfit, to the extent that the flight may be endangered.’;

(b) the following point CAT.OP.MPA.101 is inserted:

‘CAT.OP.MPA.101 Altimeter check and settings

(a) The operator shall establish procedures for altimeter checking before each departure.

(b) The operator shall establish procedures for altimeter settings for all phases of flight, which shall take into account the procedures established by the State of the aerodrome or the State of the airspace, if applicable.’;

(c) point CAT.OP.MPA.107 is replaced by the following:

‘CAT.OP.MPA.107 Adequate aerodrome

The operator shall consider an aerodrome as adequate if, at the expected time of use, the aerodrome is available and equipped with necessary ancillary services such as air traffic services (ATS), sufficient lighting, communications, meteorological reports, navigation aids and emergency services.’;

- (d) point CAT.OP.MPA.110 is replaced by the following:

‘CAT.OP.MPA.110 Aerodrome operating minima

- (a) The operator shall establish aerodrome operating minima for each departure, destination or alternate aerodrome that is planned to be used in order to ensure separation of the aircraft from terrain and obstacles and to mitigate the risk of loss of visual references during the visual flight segment of instrument approach operations.
- (b) The method used to establish aerodrome operating minima shall take all the following elements into account:
- (1) the type, performance, and handling characteristics of the aircraft;
 - (2) the equipment available on the aircraft for the purpose of navigation, acquisition of visual references, and/or control of the flight path during take-off, approach, landing, and the missed approach;
 - (3) any conditions or limitations stated in the aircraft flight manual (AFM);
 - (4) the relevant operational experience of the operator;
 - (5) the dimensions and characteristics of the runways/final approach and take-off areas (FATOs) that may be selected for use;
 - (6) the adequacy and performance of the available visual and non-visual aids and infrastructure;
 - (7) the obstacle clearance altitude/height (OCA/H) for the instrument approach procedures (IAPs);
 - (8) the obstacles in the climb-out areas and necessary clearance margins;
 - (9) the composition of the flight crew, their competence and experience;
 - (10) the IAP;
 - (11) the aerodrome characteristics and the available air navigation services (ANS);
 - (12) any minima that may be promulgated by the State of the aerodrome;
 - (13) the conditions prescribed in the operations specifications including any specific approvals for low-visibility operations (LVOs) or operations with operational credits.
 - (14) any non-standard characteristics of the aerodrome, the IAP or the environment
- (c) The operator shall specify a method of determining aerodrome operating minima in the operations manual.
- (d) The method used by the operator to establish aerodrome operating minima and any change to that method shall be approved by the competent authority.’;
- (e) point CAT.OP.MPA.115 is replaced by the following:

‘CAT.OP.MPA.115 Approach flight technique — aeroplanes

- (a) All approach operations shall be flown as stabilised approach operations unless otherwise approved by the competent authority for a particular approach to a particular runway.
- (b) The continuous descent final approach (CDFA) technique shall be used for approach operations using non-precision approach (NPA) procedures except for such particular runways for which the competent authority has approved another flight technique.’;
- (f) points CAT.OP.MPA.245 and CAT.OP.MPA.246 are replaced by the following:

‘CAT.OP.MPA.245 Meteorological conditions — all aircraft

- (a) On IFR flights, the commander shall only:
- (1) commence the flight; or
 - (2) continue beyond the point from which a revised ATS flight plan applies in the event of in-flight re-planning,

when information is available indicating that the expected meteorological conditions, at the time of arrival, at the destination and/or required alternate aerodrome(s) are at or above the planning minima.

- (b) On IFR flights, the commander shall only continue towards the planned destination aerodrome when the latest information available indicates that, at the expected time of arrival, the meteorological conditions at the destination, or at least one destination alternate aerodrome, are at or above the applicable aerodrome operating minima.
- (c) On VFR flights, the commander shall only commence the flight when the appropriate meteorological reports and/or forecasts indicate that the meteorological conditions along the part of the route to be flown under VFR will, at the appropriate time, be at or above the VFR limits.

CAT.OP.MPA.246 Meteorological conditions — aeroplanes

In addition to CAT.OP.MPA.245, on IFR flights with aeroplanes, the commander shall only continue beyond:

- (a) the decision point when using the reduced contingency fuel/energy (RCF) procedure; or
- (b) point of no return when using the isolated aerodrome procedure,

when information is available indicating that the expected meteorological conditions, at the time of arrival, at the destination and/or required alternate aerodrome(s) are at or above the applicable aerodrome operating minima.;

- (g) in point CAT.OP.MPA.247, point (a) is replaced by the following:

‘(a) On VFR flights overwater out of sight of land with helicopters, the commander shall only commence take-off when the appropriate meteorological reports and/or forecasts indicate that the ceiling will be above 600 ft by day or 1 200 ft by night.’;

- (h) point CAT.OP.MPA.265 is replaced by the following:

‘CAT.OP.MPA.265 Take-off conditions

Before commencing take-off, the commander shall be satisfied that:

- (a) the meteorological conditions at the aerodrome or operating site and the condition of the runway/FATO intended to be used will not prevent a safe take-off and departure; and
- (b) the selected aerodrome operating minima are consistent with all of the following:
 - (1) the operative ground equipment;
 - (2) the operative aircraft systems;
 - (3) the aircraft performance;
 - (4) flight crew qualifications.’;
- (i) point CAT.OP.MPA.300 is replaced by the following:

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

Before commencing an approach operation, the commander shall be satisfied that:

- (a) the meteorological conditions at the aerodrome or operating site and the condition of the runway/FATO intended to be used will not prevent a safe approach, landing or go-around, considering the performance information contained in the operations manual; and
- (b) the selected aerodrome operating minima are consistent with all of the following:
 - (1) the operative ground equipment;
 - (2) the operative aircraft systems;
 - (3) the aircraft performance;
 - (4) flight crew qualifications.’;

- (j) point CAT.OP.MPA.305 is replaced by the following:

‘CAT.OP.MPA.305 Commencement and continuation of approach

- (a) For aeroplanes, if the reported visibility (VIS) or controlling RVR for the runway to be used for landing is less than the applicable minimum, then an instrument approach operation shall not be continued:
- (1) past a point at which the aeroplane is 1 000 ft above the aerodrome elevation; or
 - (2) into the final approach segment (FAS) if the DH or MDH is higher than 1 000 ft.
- (b) For helicopters, if the reported RVR is less than 550 m and the controlling RVR for the runway to be used for landing is less than the applicable minimum, then an instrument approach operation shall not be continued:
- (1) past a point at which the helicopter is 1 000 ft above the aerodrome elevation; or
 - (2) into the FAS if the DH or MDH is higher than 1 000 ft.
- (c) If the required visual reference is not established, then a missed approach shall be executed at or before the DA/H or the MDA/H.
- (d) If the required visual reference is not maintained after DA/H or MDA/H, then a go-around shall be executed promptly.
- (e) Notwithstanding point (a), in the case where no RVR is reported, and the reported VIS is less than the applicable minimum, but the converted meteorological visibility (CMV) is equal or greater than the applicable minimum, then the instrument approach can be continued to the DA/H or MDA/H.’;

- (k) point CAT.OP.MPA.310 is replaced by the following:

‘CAT.OP.MPA.310 Operating procedures — threshold crossing height — aeroplanes

The operator shall establish operational procedures designed to ensure that an aeroplane conducting 3D instrument approach operations crosses the threshold of the runway by a safe margin, with the aeroplane in the landing configuration and attitude.’;

- (l) the following point CAT.OP.MPA.312 is inserted:

‘CAT.OP.MPA.312 EFVS 200 operations

- (a) An operator that intends to conduct EFVS 200 operations shall ensure that:
- (1) the aircraft is certified for the intended operations;
 - (2) only runways, FATO and instrument approach procedures (IAPs) suitable for EFVS operations are used;
 - (3) the flight crew members are competent to conduct the intended operation, and a training and checking programme for the flight crew members and relevant personnel involved in the flight preparation is established;
 - (4) operating procedures are established;
 - (5) any relevant information is documented in the minimum equipment list (MEL);
 - (6) any relevant information is documented in the maintenance programme;
 - (7) safety assessments are carried out and performance indicators are established to monitor the level of safety of the operation; and
 - (8) the aerodrome operating minima take into account the capability of the system used.
- (b) The operator shall not conduct EFVS 200 operations when conducting LVOs.
- (c) Notwithstanding point (a)(1), the operator may use EVSs meeting the minimum criteria to conduct EFVS 200 operations, provided that this is approved by the competent authority.’.

- (5) Annex V is amended as follows:

- (a) the title of Subpart E is replaced by the following: ‘Low-visibility operations (LVOs) and operations with operational credits’;

- (b) point SPA.LVO.100 is replaced by the following:

‘SPA.LVO.100 Low-visibility operations and operations with operational credits

The operator shall conduct the following operations only if they are approved by the competent authority:

- (a) take-off operations with visibility conditions of less than 400 m RVR;
 - (b) instrument approach operations in low-visibility conditions; and
 - (c) operations with operational credits, except for EFVS 200 operations, which shall not be subject to a specific approval.’;
- (c) point SPA.LVO.105 is replaced by the following:

‘SPA.LVO.105 Specific approval criteria

To obtain a specific approval as required by SPA.LVO.100, the operator shall demonstrate that:

- (a) for low-visibility approach operations, LVTO operations in an RVR less than 125 m, and operations with operational credits, the aircraft has been certified for the intended operations;
 - (b) the flight crew members are competent to conduct the intended operation and a training and checking programme for the flight crew members and relevant personnel involved in the flight preparation has been established, in accordance with SPA.LVO.120;
 - (c) operating procedures for the intended operations have been established;
 - (d) any relevant changes to the minimum equipment list (MEL) have been made;
 - (e) any relevant changes to the maintenance programme have been made;
 - (f) procedures have been established to ensure the suitability of aerodromes, including instrument flight procedures, for the intended operations, in accordance with SPA.LVO.110; and
 - (g) for the intended operations, a safety assessment has been carried out, and performance indicators have been established to monitor the level of safety.’;
- (d) point SPA.LVO.110 is replaced by the following:

‘SPA.LVO.110 Aerodrome-related requirements, including instrument flight procedures

The operator shall ensure that only aerodromes, including instrument flight procedures, suitable for the intended operations are used for LVOs and operations with operational credits.’;

- (e) point SPA.LVO.115 is deleted;
- (f) point SPA.LVO.120 is replaced by the following:

‘SPA.LVO.120 Flight crew competence

- (a) The operator shall ensure that the flight crew is competent to conduct the intended operations.
- (b) The operator shall ensure that each flight crew member successfully completes training and checking for all types of LVOs and operations with operational credits for which an approval has been granted. Such training and checking shall:
 - (1) include initial and recurrent training and checking;
 - (2) include normal, abnormal and emergency procedures;
 - (3) be tailored to the type of technologies used in the intended operations; and
 - (4) take into account the human factor risks associated with the intended operations.

- (c) The operator shall keep records of the training and qualifications of the flight crew members.
- (d) The training and checking shall be conducted by appropriately qualified personnel. In the case of flight and flight simulation training and checking, the personnel providing the training and conducting the checks shall be qualified in accordance with Annex I (Part-FCL) to Regulation (EU) No 1178/2011.;
- (g) in point SPA.NVIS.120, point (a) is replaced by the following:
 - ‘(a) Operations shall not be conducted below the weather minima for the type of night operations being conducted.’;
- (h) in point SPA.HOFO.120, point (a) is replaced by the following:
 - ‘(a) Onshore destination alternate aerodrome. Notwithstanding points CAT.OP.MPA.192, NCC.OP.152 and SPO.OP.151, the pilot-in command/commander does not need to specify a destination alternate aerodrome in the operational flight plan when conducting flights from an offshore location to a land destination aerodrome provided that sufficient operational contingency is in place to ensure a safe return from offshore.’;
- (i) point SPA.HOFO.125 is replaced by the following:

‘SPA.HOFO.125 Offshore standard approach procedures (OSAPs)

- (a) An operator shall establish procedures to ensure that offshore standard approach procedures (OSAPs) are followed only if:
 - (1) the helicopter is capable of providing navigation and real-time obstacle environment information for obstacle clearance; and
 - (2) either:
 - (i) the minimum descent height (MDH) is determined from a radio altimeter or a device that provides equivalent performance; or
 - (ii) the minimum descent altitude (MDA) is applied and it includes an adequate margin.
- (b) If the operator follows OSAPs to rigs or vessels in transit, the flight shall be conducted in multi-pilot operations.
- (c) The decision range shall provide adequate obstacle clearance in the missed approach from any destination for which an OSAP is planned.
- (d) The approach shall only be continued beyond decision range or below the minimum descent altitude/height (MDA/H) when visual reference to the destination has been established.
- (e) For single-pilot operations, appropriate increments shall be added to the MDA/H and decision range.
- (f) When an OSAP is followed to a non-moving offshore location (i.e. fixed installation or moored vessel) and a reliable GNSS position for the location is available in the navigation system, the GNSS/area navigation system shall be used to enhance the safety of the OSAP.
- (g) The operator shall include OSAPs in its initial and recurrent training and checking programmes.;
- (j) the following Subpart N is added:

‘SUBPART N

HELICOPTER POINT-IN-SPACE APPROACHES AND DEPARTURES WITH REDUCED VFR MINIMA (PINS-VFR)

SPA.PINS-VFR.100 Helicopter point-in-space (PinS) approaches and departures with reduced VFR minima

- (a) The operator shall only use reduced VFR operating minima if the operator has been granted an approval by the competent authority.

- (b) Reduced VFR operating minima shall apply only to a helicopter flight that includes a segment flown under IFR, and only in one of the following cases:
 - (1) the segment of the flight flown under VFR takes place immediately after a helicopter PinS approach with the intention of landing at a nearby heliport or operating site;
 - (2) the segment of the flight flown under VFR takes place immediately after a helicopter PinS approach with the intention of conducting hoist operations at a nearby HEC or HHO site;
 - (3) the segment of the flight flown under VFR is a departure with the intention of transitioning to IFR at a nearby initial departure fix.
 - (c) The operator shall define operating procedures that are applicable when flying with reduced VFR operating minima.
 - (d) The operator shall ensure that the flight crew members are experienced and trained to operate with reduced VFR operating minima.’
- (6) Annex VI is amended as follows:
- (a) the following point NCC.OP.101 is inserted:

NCC.OP.101 Altimeter check and settings

- (a) The operator shall establish procedures for altimeter checking before each departure.
 - (b) The operator shall establish procedures for altimeter settings for all phases of flight, which shall take into account the procedures established by the State of the aerodrome or the State of the airspace, if applicable.’
- (b) point NCC.OP.110 is replaced by the following:

NCC.OP.110 Aerodrome operating minima — general

- (a) The operator shall establish aerodrome operating minima for each departure, destination or alternate aerodrome that is planned to be used in order to ensure separation of the aircraft from terrain and obstacles and to mitigate the risk of loss of visual references during the visual flight segment of instrument approach operations.
- (b) The method used to establish aerodrome operating minima shall take all the following elements into account:
 - (1) the type, performance, and handling characteristics of the aircraft;
 - (2) the equipment available on the aircraft for the purpose of navigation, acquisition of visual references, and/or control of the flight path during take-off, approach, landing, and missed approach;
 - (3) any conditions or limitations stated in the aircraft flight manual (AFM);
 - (4) the dimensions and characteristics of the runways/final approach and take-off areas (FATOs) that may be selected for use;
 - (5) the adequacy and performance of the available visual and non-visual aids and infrastructure;
 - (6) the obstacle clearance altitude/height (OCA/H) for the instrument approach procedures (IAPs);
 - (7) the obstacles in the climb-out areas and necessary clearance margins;
 - (8) any non-standard characteristics of the aerodrome, the IAP or the environment;
 - (9) the composition of the flight crew, their competence and experience;
 - (10) the IAP;
 - (11) the aerodrome characteristics and the available air navigation services (ANS);
 - (12) any minima that may be promulgated by the State of the aerodrome;

- (13) the conditions prescribed in any specific approvals for low-visibility operations (LVOs) or operations with operational credits; and
- (14) the relevant operational experience of the operator.
- (c) The operator shall specify a method of determining aerodrome operating minima in the operations manual.;
- (c) point NCC.OP.111 is deleted;
- (d) point NCC.OP.112 is replaced by the following:

'NCC.OP.112 Aerodrome operating minima — circling operations with aeroplanes

- (a) The MDH for a circling approach operation with aeroplanes shall not be lower than the highest of:
 - (1) the published circling OCH for the aeroplane category;
 - (2) the minimum circling height derived from Table 1; or
 - (3) the DH/MDH of the preceding IAP.
- (b) The minimum visibility for a circling approach operation with aeroplanes shall be the highest of:
 - (1) the circling visibility for the aeroplane category, if published; or
 - (2) the minimum visibility derived from Table 1.

Table 1

MDH and minimum visibility for circling per aeroplane category

	Aeroplane category			
	A	B	C	D
MDH (ft)	400	500	600	700
Minimum VIS (m)	1 500	1 600	2 400	3 600;

- (e) in point NCC.OP.145, point (b) is replaced by the following:
 - '(b) Before commencing a flight, the pilot-in-command shall be familiar with all available meteorological information appropriate to the intended flight. Preparation for a flight away from the vicinity of the place of departure, and for every flight under IFR, shall include:
 - (1) a study of the available current meteorological reports and forecasts; and
 - (2) the planning of an alternative course of action to provide for the eventuality that the flight cannot be completed as planned, because of meteorological conditions.;
- (f) the following points NCC.OP.147 and NCC.OP.148 are inserted:

'NCC.OP.147 Destination alternate aerodromes planning minima — aeroplanes

An aerodrome shall not be specified as a destination alternate aerodrome unless the available current meteorological information indicates, for the period from 1 hour before until 1 hour after the estimated time of arrival, or from the actual time of departure to 1 hour after the estimated time of arrival, whichever is the shorter period,

- (a) for an alternate aerodrome with an available instrument approach operation with DH less than 250 ft,
 - (1) a ceiling of at least 200 ft above the DH or MDH associated with the instrument approach operation; and
 - (2) a visibility of at least the higher of 1 500 m and 800 m above the instrument approach operation RVR/VIS minima; or

- (b) for an alternate aerodrome with an instrument approach operation with DH or MDH 250 ft or more,
 - (1) a ceiling of at least 400 ft above the DH or MDH associated with the instrument approach operation; and
 - (2) a visibility of at least 3 000 m; or
- (c) for an alternate aerodrome without an instrument approach procedure,
 - (1) a ceiling of at least the higher of 2 000 ft and the minimum safe IFR height; and
 - (2) a visibility of at least 5 000 m;

NCC.OP.148 Destination alternate aerodrome planning minima — helicopters

The operator shall only select an aerodrome as a destination alternate aerodrome if the available current meteorological information indicates, for the period from 1 hour before until 1 hour after the estimated time of arrival, or from the actual time of departure to 1 hour after the estimated time of arrival, whichever is the shorter period;

- (a) for an alternate aerodrome with an instrument approach procedure (IAP):
 - (1) a ceiling of at least 200 ft above the DH or MDH associated with the IAP; and
 - (2) a visibility of at least 1 500 m by day or 3 000 m by night; or
- (b) for an alternate aerodrome without an IAP:
 - (1) a ceiling of at least 2 000 ft or the minimum safe IFR height — whichever is greater; and
 - (2) a visibility of at least 1 500 m by day or 3 000 m by night;
- (g) in point NCC.OP.150, point (a) is replaced by the following:
 - ‘(a) For IFR flights, the pilot-in-command shall specify at least one weather-permissible take-off alternate aerodrome in the flight plan if the meteorological conditions at the aerodrome of departure are at or below the applicable aerodrome operating minima or if it would not be possible to return to the aerodrome of departure for other reasons.’;
- (h) in point NCC.OP.180, points (a) and (b) are replaced by the following:
 - ‘(a) The pilot-in-command shall only commence or continue a VFR flight if the latest available meteorological information indicates that the meteorological conditions along the route and at the intended destination at the estimated time of use will be at or above the applicable VFR operating minima.
 - (b) The pilot-in-command shall only commence or continue an IFR flight towards the planned destination aerodrome if the latest available meteorological information indicates that, at the estimated time of arrival, the meteorological conditions at the destination or at least one destination alternate aerodrome are at or above the applicable aerodrome operating minima.’;
- (i) point NCC.OP.195 is replaced by the following:

NCC.OP.195 Take-off conditions — aeroplanes and helicopters

Before commencing take-off, the pilot-in-command shall be satisfied that:

- (a) the meteorological conditions at the aerodrome or the operating site and the condition of the runway/FATO intended to be used will not prevent a safe take-off and departure; and
- (b) the selected aerodrome operating minima are consistent with all of the following:
 - (1) the operative ground equipment;
 - (2) the operative aircraft systems;
 - (3) the aircraft performance;
 - (4) flight crew qualifications.’;

- (j) point NCC.OP.225 is replaced by the following:

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

Before commencing an approach operation, the pilot-in-command shall be satisfied that:

- (a) the meteorological conditions at the aerodrome or the operating site and the condition of the runway/FATO intended to be used will not prevent a safe approach, landing or go-around, considering the performance information contained in the operations manual; and
 - (b) the selected aerodrome operating minima are consistent with all of the following:
 - (1) the operative ground equipment;
 - (2) the operative aircraft systems;
 - (3) the aircraft performance; and
 - (4) flight crew qualifications.;
- (k) point NCC.OP.230 is replaced by the following:

NCC.OP.230 Commencement and continuation of approach

- (a) For aeroplanes, if the reported visibility (VIS) or controlling RVR for the runway to be used for landing is less than the applicable minimum, then an instrument approach operation shall not be continued:
 - (1) past a point at which the aeroplane is 1 000 ft above the aerodrome elevation; or
 - (2) into the final approach segment (FAS) if the DH or MDH is higher than 1 000 ft.
 - (b) For helicopters, if the reported RVR is less than 550 m and the controlling RVR for the runway to be used for landing is less than the applicable minimum, then an instrument approach operation shall not be continued:
 - (1) past a point at which the helicopter is 1 000 ft above the aerodrome elevation; or
 - (2) into the FAS if the DH or MDH is higher than 1 000 ft.
 - (c) If the required visual reference is not established, a missed approach shall be executed at or before the DA/H or the MDA/H.
 - (d) If the required visual reference is not maintained after DA/H or MDA/H, a go-around shall be executed promptly.
 - (e) Notwithstanding point (a), in the case where no RVR is reported, and the reported VIS is less than the applicable minimum, but the converted meteorological visibility (CMV) is equal or greater than the applicable minimum, then the instrument approach can be continued to the DA/H or MDA/H.
 - (f) Notwithstanding points (a) and (b), if there is no intention to land, the instrument approach may be continued to the DA/H or the MDA/H. A missed approach shall be executed at or before the DA/H or the MDA/H.;
- (l) the following point NCC.OP.235 is added:

NCC.OP.235 EFVS 200 operations

- (a) An operator that intends to conduct EFVS 200 operations with operational credits and without a specific approval shall ensure that:
 - (1) the aircraft is certified for the intended operations;
 - (2) only runways, FATOs and IAPs suitable for EFVS operations are used;
 - (3) the flight crew members are competent to conduct the intended operation, and a training and checking programme for the flight crew members and relevant personnel involved in the flight preparation is established;
 - (4) operating procedures are established;
 - (5) any relevant information is documented in the minimum equipment list (MEL);
 - (6) any relevant information is documented in the maintenance programme;

- (7) safety assessments are carried out and performance indicators are established to monitor the level of safety of the operation; and
 - (8) the aerodrome operating minima take into account the capability of the system used.
- (b) The operator shall not conduct EFVS 200 operations when conducting LVOs.
- (c) Notwithstanding point (a)(1), the operator may use EVSs meeting the minimum criteria to conduct EFVS 200 operations, provided that this is approved by the competent authority.’.
- (7) Annex VII is amended as follows:
- (a) the following point NCO.OP.101 is inserted

NCO.OP.101 Altimeter check and settings

- (a) The pilot-in-command shall check the proper operation of the altimeter before each departure.
 - (b) The pilot-in-command shall use appropriate altimeter settings for all phases of flight, taking into account any procedure prescribed by the State of the aerodrome or the State of the airspace.’;
- (b) point NCO.OP.105 is deleted;
- (c) points NCO.OP.110, NCO.OP.111 and NCO.OP.112 are replaced by the following:

NCO.OP.110 Aerodrome operating minima — aeroplanes and helicopters

- (a) For instrument flight rules (IFR) flights, the pilot-in-command shall establish aerodrome operating minima for each departure, destination or alternate aerodrome that is planned to be used in order to ensure separation of the aircraft from terrain and obstacles and to mitigate the risk of loss of visual references during the visual flight segment of instrument approach operations.
- (b) The aerodrome operating minima shall take the following elements into account, if relevant:
 - (1) the type, performance, and handling characteristics of the aircraft;
 - (2) the equipment available on the aircraft for the purpose of navigation, acquisition of visual references, and/or control of the flight path during take-off, approach, landing, and missed approach;
 - (3) any conditions or limitations stated in the aircraft flight manual (AFM);
 - (4) the dimensions and characteristics of the runways/final approach and take-off areas (FATOs) that may be selected for use;
 - (5) the adequacy and performance of the available visual and non-visual aids and infrastructure;
 - (6) the obstacle clearance altitude/height (OCA/H) for the instrument approach procedures (IAPs), if established;
 - (7) the obstacles in the climb-out areas and clearance margins;
 - (8) the competence and relevant operational experience of the pilot-in-command;
 - (9) the IAP, if established;
 - (10) the aerodrome characteristics and the type of air navigation services (ANS) available, if any;
 - (11) any minima that may be promulgated by the State of the aerodrome;
 - (12) the conditions prescribed in any specific approvals for low-visibility operations (LVOs) or operations with operational credits,;

NCO.OP.111 Aerodrome operating minima — 2D and 3D approach operations

- (a) The decision height (DH) to be used for a 3D approach operation or a 2D approach operation flown with the continuous descent final approach (CDFA) technique shall not be lower than the highest of:
 - (1) the obstacle clearance height (OCH) for the category of aircraft;

- (2) the published approach procedure DH or minimum descent height (MDH), where applicable;
 - (3) the system minimum specified in Table 1;
 - (4) the minimum DH specified in the AFM or equivalent document, if stated.
- (b) The MDH for a 2D approach operation flown without the CDFA technique shall not be lower than the highest of:
- (1) the OCH for the category of aircraft;
 - (2) the published approach procedure MDH, where applicable;
 - (3) the system minimum specified in Table 1; or
 - (4) the minimum MDH specified in the AFM, if stated.

Table 1

System minima

Facility	Lowest DH/MDH (ft)
ILS/MLS/ GLS	200
GNSS/SBAS (LPV)	200
Precision approach radar (PAR)	200
GNSS/SBAS (LP)	250
GNSS (LNAV)	250
GNSS/Baro-VNAV (LNAV/VNAV)	250
Helicopter point-in-space approach	250
LOC with or without DME	250
SRA (terminating at ½ NM)	250
SRA (terminating at 1 NM)	300
SRA (terminating at 2 NM or more)	350
VOR	300
VOR/DME	250
NDB	350
NDB/DME	300
VDF	350';

NCO.OP.112 Aerodrome operating minima — circling operations with aeroplanes

- (a) The MDH for a circling approach operation with aeroplanes shall not be lower than the highest of:
- (1) the published circling OCH for the aeroplane category;
 - (2) the minimum circling height derived from Table 1; or
 - (3) the DH/MDH of the preceding IAP.
- (b) The minimum visibility for a circling approach operation with aeroplanes shall be the highest of:
- (1) the circling visibility for the aeroplane category, if published; or
 - (2) the minimum visibility derived from Table 1'.

Table 1

MDH and minimum visibility for circling per aeroplane category

	Aeroplane category			
	A	B	C	D
MDH (ft)	400	500	600	700
Minimum VIS (m)	1 500	1 500	2 400	3 600';

(d) in point NCO.OP.135, point (b) is replaced by the following:

‘(b) Before commencing a flight, the pilot-in-command shall be familiar with all available meteorological information appropriate to the intended flight. Preparation for a flight away from the vicinity of the place of departure, and for every flight under IFR, shall include:

- (1) a study of the available current meteorological reports and forecasts; and
- (2) the planning of an alternative course of action to provide for the eventuality that the flight cannot be completed as planned, because of meteorological conditions.’;

(e) points NCO.OP.140, NCO.OP.141 and NCO.OP.142 are replaced by the following:

NCO.OP.140 Destination alternate aerodromes — aeroplanes

For IFR flights, the pilot-in-command shall specify at least one destination alternate aerodrome in the flight plan, unless the available current meteorological information for the destination indicates, for the period from 1 hour before until 1 hour after the estimated time of arrival, or from the actual time of departure to 1 hour after the estimated time of arrival, whichever is the shorter period, a ceiling of at least 1 000 ft above the DH/MDH for an available instrument approach procedure (IAP) and a visibility of at least 5 000 m.

NCO.OP.141 Destination alternate aerodromes — helicopters

For IFR flights, the pilot-in-command shall specify at least one destination alternate aerodrome in the flight plan, unless the available current meteorological information for the destination indicates, for the period from 1 hour before until 1 hour after the estimated time of arrival, or from the actual time of departure to 1 hour after the estimated time of arrival, whichever is the shorter period, a ceiling of at least 1 000 ft above the DH/MDH for an available IAP and a visibility of at least 3 000 m.

NCO.OP.142 Destination alternate aerodromes — instrument approach operations

The pilot-in-command shall only select an aerodrome as a destination alternate aerodrome if either:

- (a) an IAP that does not rely on GNSS is available either at the destination aerodrome or at a destination alternate aerodrome, or
- (b) all of the following conditions are met:
 - (1) the onboard GNSS equipment is SBAS-capable;
 - (2) the destination aerodrome, any destination alternate aerodrome, and the route between them are within SBAS service area;
 - (3) ABAS is predicted to be available in the event of the unexpected unavailability of SBAS;
 - (4) an IAP is selected (either at destination or destination alternate aerodrome) that does not rely on the availability of SBAS;
 - (5) an appropriate contingency action allows the flight to be completed safely in the event of unavailability of GNSS.’

- (f) the following points NCO.OP.143 and NCO.OP.144 are inserted:

NCO.OP.143 Destination alternate aerodromes planning minima — aeroplanes

An aerodrome shall not be specified as a destination alternate aerodrome unless the available current meteorological information indicates, for the period from 1 hour before until 1 hour after the estimated time of arrival, or from the actual time of departure to 1 hour after the estimated time of arrival, whichever is the shorter period:

- (a) for an alternate aerodrome with an available instrument approach operation with DH less than 250 ft,
 - (1) a ceiling of at least 200 ft above the decision height (DH) or minimum descent height (MDH) associated with the instrument approach operation; and
 - (2) a visibility of at least 1 500 m; or
- (b) for an alternate aerodrome with an instrument approach operation with DH or MDH 250 ft or more,
 - (1) a ceiling of at least 400 ft above the DH or MDH associated with the instrument approach operation; and
 - (2) a visibility of at least 3 000 m; or
- (c) for an alternate aerodrome without an IAP,
 - (1) a ceiling of at least the higher of 2 000 ft and the minimum safe IFR height; and
 - (2) a visibility of at least 5 000 m.

NCO.OP.144 Destination alternate aerodromes planning minima — helicopters

An aerodrome shall not be specified as a destination alternate aerodrome unless the available current meteorological information indicates, for the period from 1 hour before until 1 hour after the estimated time of arrival, or from the actual time of departure to 1 hour after the estimated time of arrival, whichever is the shorter period,

- (a) for an alternate aerodrome with an IAP:
 - (1) a ceiling of at least 200 ft above the DH or MDH associated with the IAP; and
 - (2) a visibility of at least 1 500 m by day or 3 000 m by night; or
 - (b) for an alternate aerodrome without an IAP:
 - (1) a ceiling of at least the higher of 2 000 ft and the minimum safe IFR height; and
 - (2) a visibility of at least 1 500 m by day or 3 000 m by night.
- (g) in point NCO.OP.160, points (a) and (b) are replaced by the following:
- ‘(a) The pilot-in-command shall only commence or continue a VFR flight if the latest available meteorological information indicates that the meteorological conditions along the route and at the intended destination at the estimated time of use will be at or above the applicable VFR operating minima.
 - (b) The pilot-in-command shall only commence or continue an IFR flight towards the planned destination aerodrome if the latest available meteorological information indicates that, at the estimated time of arrival, the meteorological conditions at the destination or at least one destination alternate aerodrome are at or above the applicable aerodrome operating minima.’
- (h) point NCO.OP.175 is replaced by the following:

NCO.OP.175 Take-off conditions — aeroplanes and helicopters

Before commencing take-off, the pilot-in-command shall be satisfied that:

- (a) according to the information available, the meteorological conditions at the aerodrome or the operating site and the condition of the runway/FATO intended to be used will not prevent a safe take-off and departure; and

- (b) the selected aerodrome operating minima are consistent with all of the following:
 - (1) the operative ground equipment;
 - (2) the operative aircraft systems;
 - (3) the aircraft performance;
 - (4) flight crew qualifications.;
- (i) points NCO.OP.205 and NCO.OP.206 are 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:

- (a) according to the information available, the meteorological conditions at the aerodrome or the operating site, and the condition of the runway intended to be used will not prevent a safe approach, landing, or missed approach; and
- (b) the selected aerodrome operating minima are consistent with all of the following:
 - (1) the operative ground equipment;
 - (2) the operative aircraft systems;
 - (3) the aircraft performance, and
 - (4) flight crew qualifications.

NCO.OP.206 Approach and landing conditions — helicopters

Before commencing an approach to land, the pilot-in-command shall be satisfied that:

- (a) according to the information available, the meteorological conditions at the aerodrome or the operating site and the condition of the final approach and take-off area (FATO) intended to be used will not prevent a safe approach, landing or missed approach; and
- (b) the selected aerodrome operating minima are consistent with all of the following:
 - (1) the operative ground equipment;
 - (2) the operative aircraft systems;
 - (3) the aircraft performance;
 - (4) flight crew qualifications.'
- (j) point NCO.OP.210 is replaced by the following:

'NCO.OP.210 Commencement and continuation of approach — aeroplanes and helicopters

- (a) If the controlling RVR for the runway to be used for landing is less than 550 m (or any lower value established in accordance with an approval under SPA.LVO), then an instrument approach operation shall not be continued:
 - (1) past a point at which the aircraft is 1 000 ft above the aerodrome elevation; or
 - (2) into the final approach segment if the DH or MDH is higher than 1 000 ft.
 - (b) If the required visual reference is not established, a missed approach shall be executed at or before the DA/H or the MDA/H.
 - (c) If the required visual reference is not maintained after DA/H or MDA/H, a go-around shall be executed promptly.'
- (8) Annex VIII is amended as follows:
- (a) the following point SPO.OP.101 is inserted:

'SPO.OP.101 Altimeter check and settings

- (a) The operator shall establish procedures for altimeter checking before each departure.
- (b) The operator shall establish procedures for altimeter settings for all phases of flight, which shall take into account the procedures established by the State of the aerodrome or the State of the airspace, if applicable.;

- (b) point SPO.OP.110 is replaced by the following:

‘SPO.OP.110 Aerodrome operating minima — aeroplanes and helicopters

- (a) The operator shall establish aerodrome operating minima for each departure, destination or alternate aerodrome that is planned to be used in order to ensure separation of the aircraft from terrain and obstacles and to mitigate the risk of loss of visual references during the visual flight segment of instrument approach operations.
- (b) The method used to establish aerodrome operating minima shall take all the following elements into account:
- (1) the type, performance, and handling characteristics of the aircraft;
 - (2) the equipment available on the aircraft for the purpose of navigation, acquisition of visual references, and/or control of the flight path during take-off, approach, landing, and missed approach;
 - (3) any conditions or limitations stated in the aircraft flight manual (AFM);
 - (4) the dimensions and characteristics of the runways/final approach and take-off areas (FATOs) that may be selected for use;
 - (5) the adequacy and performance of the available visual and non-visual aids and infrastructure;
 - (6) the obstacle clearance altitude/height (OCA/H) for the instrument approach procedures (IAPs);
 - (7) the obstacles in the climb-out areas and the necessary clearance margins;
 - (8) any non-standard characteristics of the aerodrome, the IAP or the local environment;
 - (9) the composition of the flight crew, their competence and experience;
 - (10) the IAP;
 - (11) the aerodrome characteristics and the available air navigation services (ANS);
 - (12) any minima that may be promulgated by the State of the aerodrome;
 - (13) the conditions prescribed in any specific approvals for low-visibility operations (LVOs) or operations with operational credits; and
 - (14) the relevant operational experience of the operator.
- (c) The operator shall specify a method of determining aerodrome operating minima in the operations manual.;
- (c) point SPO.OP.111 is deleted;
- (d) point SPO.OP.112 is replaced by the following:

‘SPO.OP.112 Aerodrome operating minima — circling operations with aeroplanes

- (a) The minimum descent height (MDH) for a circling approach operation with aeroplanes shall not be lower than the highest of:
- (1) the published circling OCH for the aeroplane category;
 - (2) the minimum circling height derived from Table 1; or
 - (3) the decision height (DH)/MDH of the preceding IAP.
- (b) The minimum visibility for a circling approach operation with aeroplanes shall be the highest of:
- (1) the circling visibility for the aeroplane category, if published; or
 - (2) the minimum visibility derived from Table 1.

Table 1

MDH and minimum visibility for circling per aeroplane category

	Aeroplane category			
	A	B	C	D
MDH (ft)	400	500	600	700
Minimum VIS (m)	1 500	1 600	2 400	3 600';

(e) in point SPO.OP.140, point (b) is replaced by the following:

‘(b) Before commencing a flight, the pilot-in-command shall be familiar with all available meteorological information appropriate to the intended flight. Preparation for a flight away from the vicinity of the place of departure, and for every flight under IFR, shall include:

- (1) a study of the available current meteorological reports and forecasts; and
- (2) the planning of an alternative course of action to provide for the eventuality that the flight cannot be completed as planned, because of meteorological conditions.’;

(f) the following points SPO.OP.143 and SPO.OP.144 are inserted:

‘SPO.OP.143 Destination alternate aerodromes planning minima — aeroplanes

An aerodrome shall not be specified as a destination alternate aerodrome unless the available current meteorological information indicates, for the period from 1 hour before until 1 hour after the estimated time of arrival, or from the actual time of departure to 1 hour after the estimated time of arrival, whichever is the shorter period,

- (a) for an alternate aerodrome with an available instrument approach operation with DH less than 250 ft,
 - (1) a ceiling of at least 200 ft above the DH or MDH associated with the instrument approach operation; and
 - (2) a visibility of at least the higher of 1 500 m and 800 m above the instrument approach operation RVR/VIS minima; or
- (b) for an alternate aerodrome with an instrument approach operation with DH or MDH 250 ft or more,
 - (1) a ceiling of at least 400 ft above the DH or MDH associated with the instrument approach operation; and
 - (2) a visibility of at least 3 000 m; or
- (c) for an alternate aerodrome without an instrument approach procedure,
 - (1) a ceiling of at least the higher of 2 000 ft and the minimum safe IFR height; and
 - (2) a visibility of at least 5 000 m.

SPO.OP.144 Destination alternate aerodrome planning minima — helicopters

The operator shall only select an aerodrome as a destination alternate aerodrome if the available current meteorological information indicates, for the period from 1 hour before until 1 hour after the estimated time of arrival, or from the actual time of departure to 1 hour after the estimated time of arrival, whichever is the shorter period,

- (a) for an alternate aerodrome with an IAP:
 - (1) a ceiling of at least 200 ft above the DH or MDH associated with the IAP; and
 - (2) a visibility of at least 1 500 m by day or 3 000 m by night; or

- (b) for an alternate aerodrome without an IAP:
 - (1) a ceiling of at least 2 000 ft or the minimum safe IFR height, whichever is greater; and
 - (2) a visibility of at least 1 500 m by day or 3 000 m by night.;
- (g) in point SPO.OP.145, point (a) is replaced by the following:
 - ‘(a) For IFR flights, the pilot-in-command shall specify at least one weather-permissible take-off alternate aerodrome in the flight plan if the meteorological conditions at the aerodrome of departure are at or below the applicable aerodrome operating minima or if it would not be possible to return to the aerodrome of departure for other reasons.’;
- (h) in point SPO.OP.170, points (a) and (b) are replaced by the following:
 - ‘(a) The pilot-in-command shall only commence or continue a VFR flight if the latest available meteorological information indicates that the meteorological conditions along the route and at the intended destination at the estimated time of use will be at or above the applicable VFR operating minima.
 - (b) The pilot-in-command shall only commence or continue an IFR flight towards the planned destination aerodrome if the latest available meteorological information indicates that, at the estimated time of arrival, the meteorological conditions at the destination or at least one destination alternate aerodrome are at or above the applicable aerodrome operating minima.’;
- (i) point SPO.OP.180 is replaced by the following:

‘SPO.OP.180 Take-off conditions — aeroplanes and helicopters

Before commencing take-off, the pilot-in-command shall be satisfied that:

- (a) the meteorological conditions at the aerodrome or the operating site and the condition of the runway/FATO intended to be used will not prevent a safe take-off and departure; and
- (b) the selected aerodrome operating minima are consistent with all of the following:
 - (1) the operative ground equipment;
 - (2) the operative aircraft systems;
 - (3) the aircraft performance;
 - (4) flight crew qualifications.’;
- (j) point SPO.OP.210 is replaced by the following:

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

Before commencing an approach operation, the pilot-in-command shall be satisfied that:

- (a) the meteorological conditions at the aerodrome or the operating site and the condition of the runway/FATO intended to be used will not prevent a safe approach, landing or go-around, considering the performance information contained in the operations manual; and
- (b) the selected aerodrome operating minima are consistent with all of the following:
 - (1) the operative ground equipment;
 - (2) the operative aircraft systems;
 - (3) the aircraft performance;
 - (4) flight crew qualifications.’;
- (k) point SPO.OP.215 is replaced by the following:

‘SPO.OP.215 Commencement and continuation of approach

- (a) For aeroplanes, if the reported visibility (VIS) or controlling RVR for the runway to be used for landing is less than the applicable minimum, then an instrument approach operation shall not be continued:
 - (1) past a point at which the aeroplane is 1 000 ft above the aerodrome elevation; or

- (2) into the final approach segment (FAS) if the DH or MDH is higher than 1 000 ft.
- (b) For helicopters, if the reported RVR is less than 550 m and the controlling RVR for the runway to be used for landing is less than the applicable minimum, then an instrument approach operation shall not be continued:
 - (1) past a point at which the helicopter is 1 000 ft above the aerodrome elevation; or
 - (2) into the FAS if the DH or MDH is higher than 1 000 ft.
- (c) If the required visual reference is not established, a missed approach shall be executed at or before the DA/H or the MDA/H.
- (d) If the required visual reference is not maintained after DA/H or MDA/H, a go-around shall be executed promptly.
- (e) Notwithstanding point (a), in the case where no RVR is reported, and the reported VIS is lower, but the converted meteorological visibility (CMV) is greater than the applicable minimum, then the instrument approach can be continued to the DA/H or MDA/H.
- (f) Notwithstanding points (a) and (b), if there is no intention to land, the instrument approach may be continued to the DA/H or the MDA/H. A missed approach shall be executed at or before the DA/H or the MDA/H.;
- (l) The following point SPO.OP.235 is added:

‘SPO.OP.235 EFVS 200 operations

- (a) An operator that intends to conduct EFVS 200 operations with operational credits and without a specific approval shall ensure that:
 - (1) the aircraft is certified for the intended operations;
 - (2) only runways, FATOs and IAPs suitable for EFVS operations are used;
 - (3) the flight crew are competent to conduct the intended operation and a training and checking programme for the flight crew members and relevant personnel involved in the flight preparation is established;
 - (4) operating procedures are established;
 - (5) any relevant information is documented in the minimum equipment list (MEL);
 - (6) any relevant information is documented in the maintenance programme;
 - (7) safety assessments are carried out and performance indicators are established to monitor the level of safety of the operation; and
 - (8) the aerodrome operating minima take into account the capability of the system used.
 - (b) The operator shall not conduct EFVS 200 operations when conducting LVOs.
 - (c) Notwithstanding point (a)(1), the operator may use EVSs meeting the minimum criteria to conduct EFVS 200 operations, provided that this is approved by the competent authority.’
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