STATUTORY INSTRUMENTS

2021 No. 1203

The Aviation Safety (Amendment) (No. 3) Regulations 2021

PART 3

Amendment of retained direct minor EU legislation

CHAPTER 1

Amendment of Commission Regulation (EC) No 1178/2011

Commission Regulation (EU) No 1178/2011 (aircrew)

3. Commission Regulation (EU) No 1178/2011 of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council(**1**) is amended in accordance with regulations 4 to 6.

Amendment of Annex 1 to Commission Regulation (EU) No 1178/2011

4.—(1) Annex 1 (Part-FCL) is amended as follows.

(2) In point FCL.010—

(a) after the definition of "Dual instruction time" insert—

> ""EBT operator" means an organisation that is holding an air operator certificate (AOC) in accordance with Annex III (Part-ORO) to Regulation (EU) No 965/2012 and that has implemented an EBT programme approved by the CAA, in accordance with the provisions of that Regulation.
>
> "EBT practical assessment" means a method for assessing performance that serves to verify the integrated performance of competencies and takes place in either a simulated or an operational environment.
>
> "EBT programme" means a pilot assessment and training programme in accordance with point ORO.FC.231 (evidence-based training) of Annex III (Part-ORO) to Regulation (EU) No 965/2012.";

(b) after the definition of "Medical declaration" insert—

> ""Mixed EBT programme" means an operator's recurrent training and checking programme provided for in point ORO.FC.230 of Annex III (Part-ORO) to Regulation (EU) No 965/2012, a portion of which is dedicated to the application of EBT but which does not replace proficiency checks provided for in Appendix 9 to this Annex.".

(3) In point FCL.015, after point (f) insert—

(**1**) EUR 2011/1178, amended by S.I. 2019/645, 2020/1116, 2021/10 and 2021/614.

"(g) Training completed in aircraft or in FSTDs in accordance with Annex III (Part-ORO) to Regulation (EU) No 965/2012 shall be taken into account for the purposes of the experience and revalidation requirements established in this Annex (Part-FCL).".

(4) In point FCL.025(b), for point (3) substitute—

"(3) If an applicant for the ATPL theoretical knowledge examination, or for the issue of a commercial pilot licence (CPL), or an instrument rating (IR) has failed to pass one of the theoretical knowledge examination papers within four attempts, or has failed to pass all papers within either six sittings or within the period mentioned in point (b)(2), the applicant shall retake the complete set of theoretical knowledge examination papers in order to obtain the licence.".

(5) In point FCL.025(b), for point (4) substitute—

"(4) If an applicant for the issue of a light aircraft pilot licence (LAPL) or a private pilot licence (PPL) has failed to pass one of the theoretical knowledge examination papers within four attempts or has failed to pass all papers within the period mentioned in point (b)(2), he or she shall retake the complete set of theoretical knowledge examination papers in order to obtain the licence.".

(6) In point FCL.035(a), after point (3) insert—

"(4) All hours flown in aeroplanes or TMGs that are subject to a decision of the CAA taken in accordance with point (a) or (c) of Article 2(8) of Regulation (EU) 2018/1139 or that fall within the scope of Annex I to that Regulation shall be credited in full towards fulfilling the flight time requirements of point FCL.140.A(a)(1) and point FCL.740.A(b)(1)(ii) of this Annex, provided that the following conditions are met:

(i) the aeroplane or TMG concerned is of the same category and class as the Part-FCL aircraft in respect of which the hours flown are to be credited;

(ii) in case of training flights with an instructor, the aeroplane or TMG used is subject to an authorisation specified in point ORA.ATO.135 of Annex VII (Part-ORA) or point DTO.GEN.240 of Annex VIII (Part-DTO).";

(7) In point FCL.035(b)(5), for "FCL.720.A(b)(2)(i)" substitute "FCL.720.A.(a)(2)(ii)(A)".

(8) In point FCL.235, for point (a) substitute—

"(a) Through the completion of a skill test, applicants for a PPL shall demonstrate the ability to perform as PIC on the appropriate aircraft category the relevant procedures and manoeuvres with the competency appropriate to the privileges granted.".

(9) In point FCL.625—

(a) in point (b), after point (3) insert—

"(4) Applicants for the revalidation of an IR shall receive full credits for the proficiency check as required in this Subpart when they complete EBT practical assessment in accordance with Appendix 10 to this Annex related to the IR at an EBT operator.";

(b) for point (c) substitute—

"(c) Renewal

If an IR has expired, in order to renew their privileges, applicants shall comply with all of the following:

(1) in order to determine whether refresher training is necessary for the applicant to reach the level of proficiency needed to pass the instrument element of the skill test in accordance with Appendix 9 to this Annex, they shall undergo an assessment at either of the following organisations:

(a) an ATO;

(b) an EBT operator that is specifically approved for such refresher training;

(2) if deemed necessary by the organisation providing the assessment in accordance with point (1), they shall complete refresher training at that organisation;

(3) after complying with point (1) and, where applicable, point (2), they shall pass a proficiency check in accordance with Appendix 9 to this Annex, or complete EBT practical assessment in accordance with Appendix 10 to this Annex, in the relevant aircraft category. That EBT practical assessment may be combined with the refresher training specified in point (2);

(4) they shall hold the relevant class or type rating unless specified otherwise in this Annex.".

(c) In point (e), after "(c)(1)" insert ", (c)(2)".

(d) In point (f), for "points (c)(2) and (e)" substitute "point (c)(3)".

(10) Point FCL.625.A(a) is amended as follows—

(a) for point (2), substitute—

"(2) pass a proficiency check in accordance with Appendix 9 to this Annex, or complete EBT practical assessment in accordance with Appendix 10 to this Annex, if the IR revalidation is combined with the revalidation of a class or type rating.";

(b) for point (4), substitute—

"(4) An FNPT II or an FFS representing the relevant class or type of aeroplane may be used for the revalidation pursuant to point (3), provided that at least each alternate proficiency check for the revalidation of an IR(A) is performed in an aeroplane.".

(11) For point FCL.740, substitute—

"**FCL.740 Validity and renewal of class and type ratings**

(a) Validity

(1) The validity period of class and type ratings shall be 1 year, except for single-pilot single-engine class ratings for which the validity period shall be 2 years, unless otherwise determined in the OSD. If pilots choose to fulfil the revalidation requirement earlier than prescribed in points FCL.740.A, FCL.740.H, FCL.740.PL and FCL.740.A, the new validity period shall commence from the date of the proficiency check.

(2) Applicants for the revalidation of a class or type rating shall receive full credits for the proficiency check as required in this Subpart when they complete EBT practical assessment in accordance with Appendix 10 to this Annex at an operator that has implemented EBT for the relevant class or type rating.

(b) Renewal

For the renewal of a class or type rating, applicants shall comply with all of the following:

(1) in order to determine whether refresher training is necessary for the applicant to reach the level of proficiency to safely operate the aircraft, they shall undergo an assessment at one of the following:

(i) at an ATO;

(ii) at a DTO or at an ATO, if the expired rating concerned a non-high-performance single-engine piston class rating, a TMG class rating or a single-engine type rating for helicopters referred to in point DTO.GEN.110(a)(2)(c) of Annex VIII;

(iii) at a DTO, at an ATO or with an instructor, if the rating expired no more than 3 years ago and the rating concerned a non-high-performance single-engine piston class rating or a TMG class rating;

(iv) at an EBT operator that is specifically approved for such refresher training;

(2) if deemed necessary by the organisation or the instructor providing the assessment in accordance with point (1), they shall complete refresher training at that organisation or with that instructor;

(3) after complying with point (1) and, as applicable, point (2), they shall pass a proficiency check in accordance with Appendix 9 to this Annex or complete EBT practical assessment in accordance with Appendix 10 to this Annex. That EBT practical assessment may be combined with the refresher training specified in point (2).

By way of derogation from points (b)(1), (b)(2) and (b)(3), pilots holding a flight test rating issued in accordance with point FCL.820 who were involved in the development, certification or production flight tests for an aircraft type and have completed either 50 hours of total flight time or 10 hours of flight time as PIC in test flights in that type during the year prior to the date of their application, shall be entitled to apply for the revalidation or renewal of the relevant type rating.

Applicants shall be exempted from the requirement in points (b)(1) and (b)(2) if they hold, and are entitled to exercise the privileges of, a valid rating for the same class or type of aircraft on a pilot licence issued by a third country in accordance with Annex 1 to the Chicago Convention.

(c) Pilots who leave an operator's EBT programme after having failed to demonstrate an acceptable level of competence in accordance with that EBT programme shall not exercise the privileges of that type rating until they have complied with one of the following:

(1) they have completed EBT practical assessment in accordance with Appendix 10 to this Annex; or

(2) they have passed a proficiency check in accordance with point FCL.625(c)(3) or point FCL.740(b)(3), as applicable. In such a case, point FCL.625(b)(4) and point FCL.740(a)(2) shall not apply.".

(12) In point FCL.720.A—

(a) in point (a), for the first paragraph substitute—

"Applicants for the initial issue of privileges to operate a single-pilot aeroplane in multi-pilot operations, either when applying for the issue of a class or type rating or when extending the privileges of a class or type rating already held to multi-pilot operation, shall meet the requirements in point (b)(4) and, before starting the relevant training course, point (b)(5).";

(b) for point (a)(3), substitute—

"(3) Single-pilot high-performance complex aeroplanes

Applicants for the issue of a type rating for a complex single-pilot aeroplane classified as a high-performance aeroplane shall, in addition to meeting the requirements in point (2), comply with both of the following:

(i) they shall hold or have held a single- or multi-engine AR(A), as appropriate and as established in Subpart G;

(ii) for the issue of the first type rating, they shall, before starting the type rating training course, meet the requirements in point (b)(5).";

(c) in point (b), for the opening paragraph, substitute—

"Applicants for the issue of the first type rating for a multi-pilot aeroplane shall be student pilots currently undergoing training on an MPL training course or shall, before starting the type rating training course, comply with the following requirements:";

(d) for point (b)(5), substitute—

"(5) have completed the training course specified in point FCL.745.A unless they comply with any of the following:

(i) they completed, within the preceding 3 years, the training and checking in accordance with points ORO.FC.220 and ORO.FC.230 of Annex III (Part-ORO) to Regulation (EU) No 965/2012;

(ii) they have completed the training specified in point FCL.915(e)(1)(ii).".

(13) In point FCL.740.A(a), in point (1) for "to this Part" substitute "to this Annex, or complete EBT practical assessment in accordance with Appendix 10 to this Annex,".

(14) For point FCL.905.TRI, substitute—

"**FCL.905.TRI TRI –Privileges and conditions**

(a) The privileges of a TRI are to instruct for:

(1) the revalidation and renewal of an IR, provided the TRI holds a valid IR;

(2) the issue of a TRI or SFI certificate, provided that the holder meets either of the following conditions:

(i) has at least 50 hours of instructional experience as a TRI or SFI in accordance with this Regulation or Regulation (EU) No 965/2012;

(ii) has conducted the flight instruction syllabus of the relevant part of the TRI training course in accordance with point FCL.930.TRI(a)(3) to the satisfaction of the head of training of an ATO;

(3) in the case of the TRI for single-pilot aeroplanes:

(i) the issue, revalidation and renewal of type ratings for single-pilot high-performance complex aeroplanes provided that the applicant seeks privileges to operate in single-pilot operations.

The privileges of the TRI (SPA) may be extended to flight instruction for single-pilot high-performance complex aeroplane type ratings in multi-pilot operations, provided that the TRI meets either of the following conditions:

(A) holds or has held a TRI certificate for multi-pilot aeroplanes;

(B) has at least 500 hours on aeroplanes in multi-pilot operations and completed an MCCI training course in accordance with point FCL.930.MCCI;

(ii) the MPL course on the basic phase, provided that he or she has the privileges extended to multi-pilot operations and holds or has held an FI(A) or an IRI(A) certificate;

(4) in the case of the TRI for multi-pilot aeroplanes:

(i) the issue, revalidation and renewal of type ratings for:

(A) multi-pilot aeroplanes;

(B) single-pilot high-performance complex aeroplanes when the applicant seeks privileges to operate in multi-pilot operations;

(ii) MCC training;

(iii) the MPL course on the basic, intermediate and advanced phases, provided that, for the basic phase, he or she holds or has held an FI(A) or IRI(A) certificate;

(5) in the case of the TRI for helicopters:

(i) the issue, revalidation and renewal of helicopter type ratings;

(ii) MCC training, provided that he or she holds a multi- pilot helicopter type rating;

(iii) the extension of the single-engine IR(H) to multi-engine IR(H);

(6) in the case of the TRI for powered-lift aircraft:

(i) the issue, revalidation and renewal of powered-lift type ratings;

(ii) MCC training.

(b) The privileges of a TRI include privileges to conduct EBT practical assessment at an EBT operator, provided that the instructor complies with the requirements of Annex III (Part-ORO) to Regulation (EU) No 965/2012 for EBT instructor standardisation at that EBT operator.".

(15) In point FCL.905.SFI, at the end, insert—

"(e) The privileges of an SFI include privileges to conduct EBT practical assessment at an EBT operator, provided that the instructor complies with the requirements of Annex III (Part-ORO) to Regulation (EU) No 965/2012 for EBT instructor standardisation at that EBT operator.".

(16) In point FCL.930.SFI, in point (a)—

(a) at the end of point (2), for "." substitute "; and".

(b) after point (2) insert—

"(3) 25 hours of teaching and learning instruction.".

(17) In point FCL.1015, for point (a) substitute—

"(a) An applicant for an examiner certificate shall undertake a standardisation course which is provided by the CAA or which is provided by an ATO and approved by the CAA.".

(18) In point FCL.1025(b), for points (1) and (2) and the words in point (3) starting at the beginning and ending with the word "shall", substitute—

"(1) before the expiry date of the certificate, have conducted at least six skill tests, proficiency checks, assessments of competence, or EBT evaluation phases during an EBT module referred to in point ORO.FC.231 of Annex III (Part-ORO) to Regulation (EU) No 965/2012;

(2) in the period of 12 months immediately preceding the expiry date of the certificate, have completed an examiner refresher course which is provided by the CAA or which is provided by an ATO and approved by the CAA;

(3) one of the skill tests, proficiency checks, assessments of competence or EBT evaluation phases conducted in accordance with point (1) shall take place in the period of 12 months immediately preceding the expiry date of the examiner certificate and shall".

(19) In point FCL.1010.SFE(a)—

(a) in point (1)(ii), before "an" insert "hold";

(b) in point (2)(ii), before "an" insert "hold".

(20) In Appendix 1, for points 1.1 to 1.4 substitute—

"**1.1.** For the issue of an LAPL, the holder of an LAPL in another category of aircraft shall be fully credited towards requirements of theoretical knowledge on the common subjects established in point FCL.120(a).

1.2. For the issue of an LAPL or a PPL, holders of a PPL, CPL or ATPL in another category of aircraft shall be credited towards requirements of theoretical knowledge on the common subjects established in point FCL.215(a). This credit shall also apply to applicants for an LAPL or a PPL who hold a BPL issued in accordance with Annex III (Part-BFCL) to Regulation (EU) 2018/395 or an SPL issued in accordance with Annex III (Part-SFCL) to Implementing Regulation (EU) 2018/1976, except that the subject 'navigation' shall not be credited.

1.3. For the issue of a PPL, the holder of an LAPL in the same category of aircraft shall be fully credited towards the requirements of theoretical knowledge instruction and examination.

1.4. By way of derogation from point 1.2, for the issue of an LAPL(A), the holder of an SPL issued in accordance with Annex III (Part-SFCL) to Commission Implementing Regulation (EU) 2018/1976 with privileges to fly TMGs shall demonstrate an adequate level of theoretical knowledge for the single-engine piston aeroplane-land class in accordance with point FCL.135.A(a)(2).".

(21) In Appendix 3, section A, point 9, for point (b) substitute—

"(b) 70 hours as PIC, of which up to 55 hours may be as SPIC. The instrument flight time as SPIC shall only be counted as PIC flight time to a maximum of 20 hours;".

(22) In Appendix 9, section B—

(i) for the table after point (5)(k) substitute—

	"(1)		(2)		(3)		(4)		(5)	
	Type of operation									
Type of aircraft	SP		MP		SP → MP (initial)		MP → SP (initial)		SP + MP	
	Training	**Testing/ checking**	**Training**	**Testing/ checking**	**Training**	**Testing/ checking**	**Training, testing and checking (SE aeroplanes)**	**Training, testing and checking (ME aeroplanes)**	**SE aeroplanes**	**ME aeroplanes**
Initial issue										
All (except SP complex)	Sections 1-6	Sections 1-6	MCC CRM Human factors TEM Sections 1-7	Sections 1-6	MCC CRM Human factors TEM Section 7	Sections 1-6	1.6, 4.5, 4.6, 5.2 and, if applicable, one approach from Section 3.B	1.5, Section 6 and, if applicable, one approach from Section 3.B		
SP complex	1-7	1-6								
Revalidation										

	“(1)		(2)		(3)		(4)		(5)	
All	n/a	Sections 1-6	n/a	Sections 1-6	n/a	n/a	n/a	n/a	MPO: Sections 1-7 (training) Section 1-6 (checking) SPO: 1.6, 4.5, 4.6, 5.2 and, if applicable, one approach from Section 3.B	MPO: Sections 1-7 (training) Sections 1-6 (checking) SPO: 1.6, Section 6 and, if applicable, one approach from Section 3.B
Renewal										
All	FCL.740	Sections 1-6	FCL.740	Sections 1-6	n/a	n/a	n/a	n/a	Training: FCL.740 Check: as for the revalidation	Training: FCL.740 Check: as for the revalidation”

(ii) In point 6(i), for “FCL.720.A(e)” substitute “FCL.720.A(c)”.

(23) After Appendix 9, insert—

“Appendix 10

Revalidation and renewal of type ratings, and revalidation and renewal of IRs when combined with the revalidation or renewal of type ratings – EBT practical assessment

A General

1. The revalidation and renewal of type ratings as well as the revalidation and renewal of IRs when combined with the revalidation or renewal of type ratings in accordance with this Appendix shall be completed only at EBT operators which comply with all of the following:

(a) they have established an EBT programme relevant for the applicable type rating or the IR in accordance with point ORO.FC.231 of Annex III (Part-ORO) to Regulation (EU) No 965/2012;

(b) they have at least 3 years of experience in conducting a mixed EBT programme;

(c) for each type rating within the EBT programme, the organisation has appointed an EBT manager. EBT managers shall comply with all of the following:

(i) they shall hold examiner privileges for the relevant type rating;

(ii) they shall have extensive experience in training as an instructor for the relevant type rating;

(iii) they shall either be the person nominated in accordance with point ORO.AOC.135(a)(2) of Annex III (Part-ORO) to Regulation (EU) No 965/2012, or a deputy of that person.

2. The EBT manager responsible for the relevant type rating shall ensure that the applicant complies with all qualification, training and experience requirements of this Annex for the revalidation, or the renewal, of the relevant rating.

3. Applicants who wish to revalidate or renew a rating in accordance with this Appendix shall comply with all of the following:

(a) they shall be enrolled in the operator's EBT programme;

(b) in the case of revalidation of a rating, they shall complete the operator's EBT programme within the period of validity of the relevant rating;

(c) in the case of renewal of a rating, they shall comply with procedures developed by the EBT operator in accordance with point ORO.FC.231(a)(5) of Annex III (Part-ORO) to Regulation (EU) No 965/2012.

4. The revalidation or renewal of a rating in accordance with this Appendix shall comprise all of the following:

(a) continuous EBT practical assessment within an EBT programme;

(b) demonstration of an acceptable level of performance in all competencies;

(c) the administrative action of licence revalidation or renewal for which the EBT manager responsible for the relevant type rating shall do all of the following:

(1) ensure that the requirements of point FCL.1030 are complied with;

(2) when acting in accordance with point FCL.1030(b)(2), endorse the applicant's licence with the new expiry date of the rating. That endorsement may be completed by another person on behalf of the EBT manager, if that person received a delegation from the EBT manager to do so in accordance with the procedures established in the EBT programme.

B Conduct of the EBT practical assessment

The EBT operator shall ensure that the EBT practical assessment shall be conducted in accordance with the operator's EBT programme.".

Amendment of Annex 6 to Commission Regulation (EU) No 1178/2011

5.—(1) Annex 6 (Part-ARA) is amended as follows.

(2) In point.ARA.GEN.135(a), for "Directive 2003/42/EC of the European Parliament and of the Council" substitute "Regulation (EU) No 376/2014".

(3) In point ARA.FCL.200—

(a) for point (c) substitute—

"(c) Endorsement of licences by examiners. Before specifically authorising an examiner to revalidate or renew ratings or certificates, the CAA shall develop appropriate procedures.";

(b) in point (e), in point (1), for "BFCL.315(a)(5)(ii)" substitute "BFCL.315(a)(4)(ii)".

Amendment of Annex 7 to Commission Regulation (EU) No 1178/2011

6.—(1) Annex 7 (Part-ORA) is amended as follows.

(2) For point ORA.GEN.160 substitute—

"**ORA.GEN.160 Occurrence reporting**

(a) As part of its management system, the organisation shall establish and maintain an occurrence-reporting system, including mandatory and voluntary reporting. For organisations having their principal place of business in the United Kingdom, that system shall meet the requirements of Regulation (EU) No 376/2014 on the reporting, analysis and follow up of occurrences in civil aviation(**2**) and Regulation (EU) 2018/1139 on common rules in the field of civil aviation(**3**)as well as any regulations made under either of those Regulations or any implementing or delegated acts under or pursuant to Regulation (EU) No 376/2014 and Regulation (EU) 2018/1139 before IP completion day.

(b) The organisation shall report to the CAA and, in case of aircraft not registered in the United Kingdom, the State of Registry, any safety-related event or condition that endangers or, if not corrected or addressed, could endanger an aircraft, its occupants or any other person, and in particular any accident or serious incident.

(c) Without prejudice to point (b), the organisation shall report to the CAA and the design approval holder of the aircraft any incident, malfunction, technical defect, exceeding of technical limitations, occurrence that would highlight inaccurate, incomplete or ambiguous information, contained in data established in accordance with Regulation (EU) No 748/2012, or other irregular circumstance that has or may have endangered an aircraft, its occupants or any other person and has not resulted in an accident or serious incident.

(d) Without prejudice to Regulation (EU) No 376/2014, or any regulations made under that Regulation, reports in accordance with point (c) shall:

(1) be made as soon as practicable, but in any case, no later than 72 hours after the organisation has identified the event or condition to which the report relates unless exceptional circumstances prevent this;

(2) be made in a form and manner established by the CAA, as defined in point ORA.GEN.105;

(3) contain all pertinent information about the condition known to the organisation.

(e) For organisations not having their principal place of business in the United Kingdom:

(1) initial mandatory reports shall:

(i) appropriately safeguard the confidentiality of the identity of the reporter and of the persons mentioned in the report;

(ii) be made as soon as practicable, but in any case, no later than 72 hours after the organisation has become aware of the occurrence unless exceptional circumstances prevent this;

(iii) be made in a form and manner established by the CAA;

(iv) contain all pertinent information about the condition known to the organisation;

(**2**) OJ No. L 122, 24.4.2014, p.18-43.
(**3**) OJ No. L 212, 22.8.2018, p.1-122.

(2) where relevant, a follow-up report providing details of actions the organisation intends to take to prevent similar occurrences in the future shall be made as soon as those actions have been identified; those follow-up reports shall:

(i) be sent to relevant entities initially reported to in accordance with points (b) and (c);

(ii) be made in a form and manner established by the CAA.".

(3) In point ORA.GEN.200(a), for point (7) substitute—

"(7) any additional relevant requirements prescribed in Regulation (EU) 2018/1139 on common rules in the field of civil aviation or Regulation (EU) No 376/2014 on the reporting, analysis and follow up of occurrences in civil aviation, or any regulations made under either of those Regulations or any implementing or delegated acts under or pursuant to Regulation (EU) No 376/2014 and Regulation (EU) 2018/1139 before IP completion day.".

CHAPTER 2

Amendment of Commission Regulation (EU) No 965/2012

Commission Regulation (EU) No 965/2012 (air operations)

7. 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(**4**) is amended in accordance with regulations 8 to 11.

Amendment of Article 4 of Commission Regulation (EU) No 965/2012

8. For Article 4 (ramp inspections) substitute—

"(1) Ramp inspections of aircraft operators under the safety oversight of a third country shall be carried out in accordance with Subpart Ramp of Annex II.

(2) The CAA shall ensure that alcohol testing of flight crew members and cabin crew members is carried out with regard to operators under their own oversight as well as with regard to operators under the oversight of a third country.

(3) Alcohol testing referred to in paragraph (2) shall be performed by ramp inspectors within the framework of the ramp inspection programme of Subpart RAMP of Annex II.

(4) Results of tests carried out under paragraph (2) shall be included in the EASA centralised database in accordance with ARO.RAMP.145.".

Amendment of Annex 1 to Commission Regulation (EU) No 965/2012

9.—(1) Annex 1 (definitions for terms used in Annexes 2 to 8) is amended as follows.

(2) After paragraph (98a), insert—

"(98b) 'psychoactive substance' means any alcohol, opioid, cannabinoid, sedative, hypnotic, cocaine, other psychostimulant, hallucinogen or volatile solvent;";

(3) After paragraph (105), insert—

"(105a) 'safety-sensitive personnel' means persons who, if they fail to perform their duties or functions properly, may endanger the safety of an aircraft or its occupants;".

(**4**) EUR 2012/965, amended by S.I. 2019/645, 2020/1116 and 2021/614.

Amendment of Annex 2 to Commission Regulation (EU) 965/2012

10.—(1) Annex 2 (authority requirements for air operations) is amended as follows.

(2) In Subpart RAMP (ramp inspections of aircraft of operators under the regulatory oversight of another State)—

(a) after point ARO.RAMP.105 insert—

"**ARO.RAMP.106**

Alcohol testing

(a) The CAA's programme of ramp inspections shall include arrangements for alcohol testing on flight crew members and cabin crew members, based on random selection or on reasonable suspicion that the individual is under the influence or in excess of the prescribed limit of alcohol.

(b) The procedures for alcohol testing shall meet recognised quality standards that ensure accurate testing results and these procedures and quality standards shall be detailed in guidance published by the CAA.

(c) A flight crew member or cabin crew member:

(i) who refuses to cooperate with alcohol testing; or

(ii) whose alcohol test produces a reading in excess of the prescribed limit of alcohol,

shall not be allowed to continue their duties on the flight in question.

(d) When alcohol test data is included in the EASA centralised database in accordance with ARO.RAMP.145, the CAA shall ensure that any personal data of the crew member is excluded.

(e) "prescribed limit of alcohol" means:

(i) in the case of breath, 9 microgrammes of alcohol in 100 millilitres,

(ii) in the case of blood, 20 milligrammes of alcohol in 100 millilitres, and

(iii) in the case of urine, 27 milligrammes of alcohol in 100 millilitres.";

(b) in point ARO.RAMP.145—

(i) in point (a), for "CAA database" substitute "database maintained by the European Aviation Safety Agency and used by the CAA in accordance with working arrangements established in accordance with article 90(2) of Regulation (EU) 2018/1139 ("the EASA centralised database")";

(ii) in point (b), for "CAA database" substitute "EASA centralised database".

Amendment of Annex 4 to Commission Regulation (EU) No 965/2012

11.—(1) Annex 4 (commercial air transport) is amended as follows.

(2) In Subpart A (general requirements)—

(a) in point CAT.GEN.MPA.100(c)(1), for "psychoactive substances or alcohol" substitute "a psychoactive substance";

(b) for point CAT.GEN.MPA.170 substitute—

"**CAT.GEN.MPA.170**

Psychoactive substances

(a) The operator shall take all reasonable measures to prevent a person boarding an aircraft or being on board an aircraft when that person is under the influence of

a psychoactive substance and is behaving in such a way as to risk endangering the safety of the aircraft or of another person on board of the aircraft.

(b) The operator shall develop and implement a policy on the prevention and detection of misuse of psychoactive substances by flight crew members and cabin crew members and by other safety-sensitive personnel under its direct control, in order to ensure that the safety of the aircraft or its occupants is not endangered.

(c) The operator shall develop and implement an objective, transparent and non-discriminatory procedure for the prevention and detection of cases of misuse of psychoactive substances by its flight crew members and cabin crew members and other safety-sensitive personnel under its direct control.

(d) The operator shall inform the CAA of any case of misuse of psychoactive substances by any person to whom the procedure in point (c) applies as soon as reasonably practicable.";

(c) after point CAT.GEN.MPA.210, insert—

"**CAT.GEN.MPA.215**

Support programme

(a) The operator shall make available to and ensure, enable and facilitate access to a proactive and non-punitive support programme for flight crew members that will assist those persons to recognise, cope with and overcome any problem which could negatively affect their ability to safely exercise the privileges of their licence.

(b) The operator shall have adequate security measures in place for the protection and confidentiality of personal data contained within the support programme.".

(3) In Subpart B (operating procedures)—

(a) after point CAT.OP.MPA.300 insert—

"**CAT.OP.MPA.303**

In-flight check of the landing distance at time of arrival — aeroplanes

(a) No approach to land shall be continued unless the landing distance available (LDA) on the intended runway is at least 115% of the landing distance at the estimated time of landing, determined in accordance with the performance information for the assessment of the landing distance at time of arrival (LDTA) and the approach to land is performed with performance class A aeroplanes that are certified in accordance with either of the following certification specifications, as indicated in the type-certificate:

(1) CS-25 or equivalent;

(2) CS-23 at level 4 with performance level "High speed" or equivalent.

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

(1) the LDA on the intended runway is at least 115% of the landing distance at the estimated time of landing, determined in accordance with the performance information for the assessment of the LDTA; or

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

(c) For performance class B aeroplanes, no approach to land shall be continued, except in either of the following situations:

(1) the LDA on the intended runway is at least 115% of the landing distance at the estimated time of landing, determined in accordance with the performance information for the assessment of the LDTA; or

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

(d) For performance class C aeroplanes, no approach to land shall be continued, except in either of the following situations:

(1) the LDA on the intended runway is at least 115% of the landing distance at the estimated time of landing, determined in accordance with the performance information for the assessment of the LDTA; or

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

(e) Performance information for the assessment of the LDTA shall be based on approved data contained in the AFM. When approved data contained in the AFM are insufficient in respect of the assessment of the LDTA, they shall be supplemented with other data which are either determined in accordance with the applicable certification standards for aeroplanes or determined in line with the AMCs issued by the CAA.

(f) The operator shall specify in the OM the performance information for the assessment of the LDTA and the assumptions made for its development, including other data that, in accordance with point (e), may be used to supplement that contained in the AFM.";

(b) after point CAT.OP.MPA.310 insert—

"**CAT.OP.MPA.311**

Reporting on runway braking action

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

(4) In Subpart C (aircraft performance and operating limitations)—

(a) in point CAT.POL.A.105, for point (d) substitute—

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

(b) after point CAT.POL.A.250 insert—

"**CAT.POL.A.255**

Approval of reduced required landing distance operations

(a) An aeroplane operator may conduct landing operations within 80% of the landing distance available (LDA) if all of the following conditions are complied with:

(1) the aeroplane has an MOPSC of 19 or less;

(2) the aeroplane has an eligibility statement for reduced required landing distance in the AFM;

(3) the aeroplane is used in non-scheduled on-demand commercial air transport (CAT) operations;

(4) the landing mass of the aeroplane allows a full-stop landing within that reduced landing distance in the prevailing conditions;

(5) the operator has obtained prior approval from the CAA.

(b) To obtain the approval referred to in point (a)(5), the operator shall provide evidence of either of the following circumstances:

(1) that a risk assessment has been conducted to demonstrate that a level of safety equivalent to that intended by point CAT.POL.A.230(a)(1) or (2), as applicable, is achieved; or

(2) that the following conditions are met:

(i) special-approach procedures, such as steep approaches, planned screen heights higher than 60 feet or lower than 35 feet, low-visibility operations, or approaches outside stabilised approach criteria approved under point CAT.OP.MPA.115(a), will not be conducted;

(ii) short landing operations in accordance with point CAT.POL.A.250 will not be conducted;

(iii) landing on contaminated runways will not be conducted;

(iv) an adequate training, checking and monitoring process for the flight crew is established;

(v) an aerodrome landing analysis programme (ALAP) is established by the operator to ensure that the following conditions are met:

(A) no tailwind is forecast at the expected time of arrival;

(B) if the runway is forecast to be wet at the expected time of arrival, the landing distance at dispatch shall either be determined in accordance with point CAT.OP.MPA.303(a) or (b) as applicable, or shall be 115 % of the landing distance determined for dry runways, whichever is longer;

(C) there are no contaminated runway conditions forecast at the expected time of arrival;

(D) there are no adverse weather conditions forecast at the expected time of arrival;

(vi) all the equipment that affects landing performance is operative before commencing the flight;

(vii) the flight crew is composed of at least two qualified and trained pilots that have recency in reduced required landing distance operations in accordance with the operator's training and checking programme;

(viii) based on the prevailing conditions and in the interests of safety, the commander shall make the final decision as to whether or not to conduct reduced required landing distance operations for the intended flight;

(ix) any additional landing conditions for the aerodrome, if specified by the competent authority that has certified the aerodrome are taken into consideration.";

(c) after point CAT.POL.A.350 insert—

"**CAT.POL.A.355**

Approval of reduced required landing distance operations

(a) Operations with a landing mass of the aeroplane that allows a full-stop landing within 80% of the LDA require prior approval by the CAA. Such approval shall be obtained for each runway on which operations with reduced required landing distance are conducted.

(b) To obtain the approval referred to in point (a), the operator shall conduct a risk assessment to demonstrate that a level of safety equivalent to that intended by point CAT.POL.A.330(a) is achieved and at least the following conditions are met:

(1) the State of the aerodrome has determined a public interest and operational necessity for the operation, either due to the remoteness of the aerodrome or to physical limitations relating to the extension of the runway;

(2) short landing operations in accordance with point CAT.POL.A.350 and approaches outside stabilised approach criteria approved under point CAT.OP.MPA.115(a) and shall not be conducted;

(3) landing on contaminated runways and shall not be conducted;

(4) a specific control procedure of the touchdown area for each runway intended to be used is defined in the OM and implemented; this procedure shall include adequate go-around and balked-landing instructions when touchdown in the defined area cannot be achieved;

(5) an adequate aerodrome training and checking programme for the flight crew is established;

(6) the flight crew members are qualified and have recency in reduced required landing distance operations at the aerodrome concerned in accordance with the operator's training and checking programme;

(7) an aerodrome landing analysis programme (ALAP) is established by the operator to ensure that the following conditions are met:

(i) no tailwind is forecast at the expected time of arrival;

(ii) if the runway is forecast to be wet at the expected time of arrival, the landing distance at dispatch shall either be determined in accordance with point CAT.OP.MPA.303(c), or be 115% of the landing distance determined for dry runways, whichever is longer;

(iii) there are no contaminated runway conditions forecast at the expected time of arrival;

(iv) there are no adverse weather conditions forecast at the expected time of arrival;

(8) operational procedures are established to ensure that:

(i) all the equipment that affects landing performance and landing distance is operative before commencing the flight;

(ii) deceleration devices are correctly used by the flight crew;

(9) specific maintenance instructions and operational procedures are established for the aeroplane's deceleration devices to enhance the reliability of those systems;

(10) the final approach and landing are conducted under visual meteorological conditions (VMC) only;

(11) any additional landing conditions for the aerodrome, if specified by the competent authority that has certified the aerodrome, are taken into consideration.".

CHAPTER 3

Amendment of Commission Regulation (EU) No 139/2014

Commission Regulation (EU) No 139/2014 (aerodromes)

12. Commission Regulation (EU) No 139/2014 of 12 February 2014 laying down requirements and administrative procedures related to aerodromes pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council(**5**) is amended in accordance with regulations 13 to 15.

Amendment of Annex 1 to Commission Regulation (EU) No 139/2014

13.—(1) Annex 1 (definitions for terms used in Annexes 2 to 4) is amended as follows.

(2) After point (6) (definition of "aeronautical information service"), insert—

"(6a) "Aeronautical Information Circular (AIC)" means a notice containing information that does not qualify for the origination of a NOTAM or for inclusion in the AIP, but which relates to flight safety, air navigation, technical, administrative or legislative matters;

(6b) "aeronautical information product" means aeronautical data and aeronautical information provided either as digital data sets or as a standardised presentation in paper or electronic media. Aeronautical information products include the following:

— AIP, including amendments and supplements,

— AIC,

— aeronautical charts,

— NOTAM,

— digital data sets;

(6c) "Aeronautical Information Publication (AIP)" means a publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation;".

(3) After point (15) (definition of "clearway"), insert—

"(15a) "contaminated" in relation to a runway, means where its surface area (whether in isolated areas or not) within the length and width being used is covered in significant part by one or more of the substances listed under the runway surface condition descriptors;".

(4) After point (17) (definition of "data quality"), insert—

"(17a) "data set" means an identifiable collection of data;".

(5) After point (18) (definition of "declared distances"), insert—

"(18a) "dry", in respect of runway conditions, means that the surface of the runway is free of visible moisture and not contaminated within the area intended to be used;".

(6) After point (24) (definition of "landing distance available (LDA)"), insert—

"(24a) "Location Indicators" means the "Location Indicators" (Doc 7910), approved and published by the International Civil Aviation Organization;".

(**5**) EUR 2014/139, amended by S.I. 2019/645.

(7) After point (34) (definition of "non-instrument runway"), insert—

"(34a) "NOTAM" means a notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations;

(34b) "NOTAM code" means the code contained in the "Procedures for Air Navigation Services – ICAO Abbreviations and Codes" (PANS ABC – Doc 8400), approved and published by the International Civil Aviation Organization;".

(8) After point (38) (definition of "runway"), insert—

"(38a) "runway condition code (RWYCC)" means a number, to be used in the runway condition report (RCR), that describes the effect of the runway surface condition on aeroplane deceleration performance and lateral control;

(38b) "runway condition report (RCR)" means a comprehensive standardised report relating to the conditions of the runway surface and their effects on the aeroplane landing and take-off performance, described by means of a runway condition code;

(38c) "runway strip" means a defined area including the runway and stopway, if provided, intended to:

— reduce the risk of damage to aircraft running off a runway;

— protect aircraft flying over it during take-off or landing operations;

(38d) "runway surface condition" means a description of the condition of the runway surface used in the RCR which establishes the basis for the determination of the RWYCC for aeroplane performance purposes;

(38e) "runway surface condition descriptors" means one of the following substances on the surface of the runway:

— compacted snow: snow that has been compacted into a solid mass such that aeroplane tyres, at operating pressures and loadings, will run on the surface without significant further compaction or rutting of the surface;

— dry snow: snow from which a snowball cannot readily be made;

— frost: ice crystals formed from airborne moisture on a surface whose temperature is at or below freezing; frost differs from ice in that frost crystals grow independently and therefore, have a more granular texture;

— ice: water that has frozen or compacted snow that has transitioned into ice in cold and dry conditions;

— slush: snow that is so water-saturated that water will drain from it when a handful is picked up or will splatter if stepped on forcefully;

— standing water: water of depth greater than 3 mm;

— wet ice: ice with water on top of it or ice that is melting;

— wet snow: snow that contains enough water to be able to make a well compacted, solid snowball, but water will not squeeze out';".

(9) After point (41) ("definition of "safety management system"), insert—

"(41a) "slippery wet", in respect of runway conditions, means that the surface friction characteristics of a wet runway or a significant portion of it have been determined to be degraded;

(41b) "SNOWTAM" means a special series NOTAM given in a standard format, which provides a surface condition report notifying the presence or cessation of conditions due to

snow, ice, slush, frost or water associated with snow, slush, ice, or frost on the movement area;".

(10) For point (47) ("definition of terms of the certificate") substitute—

"(47) "terms of the certificate" means the following:

— ICAO Location Indicators,

— conditions to operate (VFR/IFR, day/night),

— runway,

— declared distances,

— runway types and approaches provided,

— aerodrome reference code,

— scope of aircraft operations with higher aerodrome reference code letter,

— provision of apron management services (yes/no),

— rescue and firefighting level of protection;".

(11) For point (48) ("definition of visual aids") substitute—

"(48) "visual aids" means indicators and signalling devices, markings, lights, signs and markers or combinations of these;".

(12) After point (48), insert—

"(49) "wet" in respect of runway conditions, means that the surface is covered by any visible dampness or water up to and including 3 mm deep within the area intended to be used.".

Amendment of Annex 3 to Commission Regulation (EU) No 139/2014

14.—(1) Annex 3 (Part-ADR.OR) is amended as follows.

(2) For point ADR.OR.D.007, substitute—

"**ADR.OR.D.007 Management of aeronautical data and aeronautical information**

(a) As part of its management system, the aerodrome operator shall implement and maintain a quality management system covering the following activities:

(1) its aeronautical data activities;

(2) its aeronautical information provision activities.

(b) The aerodrome operator shall, as part of its management system, establish a security management system to ensure the security of operational data it receives, or produces, or otherwise employs, so that access to that operational data is restricted only to those authorised.

(c) The security management system of the aerodrome operator shall define the following elements:

(1) the procedures relating to data security risk assessment and mitigation, security monitoring and improvement, security reviews and lesson dissemination;

(2) the means designed to detect security breaches and to alert personnel with appropriate security warnings;

(3) the means of controlling the effects of security breaches and of identifying recovery action and mitigation procedures to prevent reoccurrence.

(d) The aerodrome operator shall ensure the security clearance of its personnel with respect to aeronautical data security.

(e) The aerodrome operator shall take the necessary measures to protect its aeronautical data against cyber security threats.".

Amendment of Annex 4 to Commission Regulation (EU) No 139/2014

15.—(1) Annex 4 (Part-ADR.OPS) is amended as follows.

(2) For point ADR.OPS.A.010, substitute—

"**ADR.OPS.A.010 Data quality requirements**

The aerodrome operator shall have formal arrangements with the organisations with which it exchanges aeronautical data or aeronautical information and shall ensure the following:

(a) all data relevant to the aerodrome and available services is provided with the required quality;

(b) data quality requirements (DQRs) are complied with at data origination and maintained during data transmission;

(c) the accuracy of aeronautical data is as specified in the aeronautical data catalogue;

(d) the integrity of aeronautical data is maintained throughout the data process from origination to transmission, based on the integrity classification specified in the aeronautical data catalogue;

(e) procedures are put in place so that:

(1) for routine data as defined in ICAO PANS-AIM (Doc 10066), corruption is avoided throughout the processing of the data;

(2) for essential data as defined in ICAO PANS-AIM, corruption does not occur at any stage of the entire process and additional processes are included, as needed, to address potential risks in the overall system architecture to ensure data integrity at that level;

(3) for critical data as defined in ICAO PANS-AIM, corruption does not occur at any stage of the entire process and additional integrity assurance processes are included to fully mitigate the effects of faults identified by thorough analysis of the overall system architecture as potential data integrity risks;

(f) the resolution of the aeronautical data is commensurate with the actual data accuracy;

(g) the traceability of the aeronautical data;

(h) the timeliness of the aeronautical data, including any limits on the effective period;

(i) the completeness of the aeronautical data;

(j) the format of the delivered data meets the specified requirements.".

(3) After point ADR.OPS.A.015, insert—

"**ADR.OPS.A.020 Common reference systems**

For the purpose of air navigation, the aerodrome operator shall use:

(a) the World Geodetic System – 1984 (WGS-84) as the horizontal reference system;

(b) the mean sea level (MSL) datum as the vertical reference system;

(c) the Gregorian calendar and coordinated universal time (UTC) as the temporal reference systems.

ADR.OPS.A.025 Data error detection and authentication

When originating, processing or transmitting data to the aeronautical information service (AIS) provider, the aerodrome operator shall:

(a) ensure that digital data error detection techniques are used during the transmission and storage of aeronautical data, in order to support the applicable data integrity levels;

(b) ensure that the transfer of aeronautical data is subject to a suitable authentication process such that recipients are able to confirm that the data or information has been transmitted by an authorised source.

ADR.OPS.A.030 Aeronautical data catalogue

When originating, processing or transmitting data to the AIS provider, the aerodrome operator shall ensure that the aeronautical data conforms with the 'Aeronautical Data Catalogue' referred to in ICAO PANS-AIM (Doc 10066).

ADR.OPS.A.035 Data validation and verification

When originating, processing or transmitting data to the AIS provider, the aerodrome operator shall ensure that validation and verification techniques are employed so that the aeronautical data meets the associated DQRs. In addition:

(a) the verification shall ensure that the aeronautical data is received without corruption and that the aeronautical data process does not introduce corruption;

(b) aeronautical data and aeronautical information entered manually shall be subject to independent verification to detect any errors that may have been introduced;

(c) when using aeronautical data to obtain or calculate new aeronautical data, the initial data shall be verified and validated, except when provided by an authoritative source.

ADR.OPS.A.040 Error handling requirements

The aerodrome operator shall ensure that:

(a) errors identified during data origination and after data delivery are addressed, corrected or resolved;

(b) priority is given to managing errors in critical and essential aeronautical data.

ADR.OPS.A.045 Metadata

The aerodrome operator shall ensure that metadata include, as a minimum:

(a) the identification of the organisations or entities performing any action of originating, transmitting or manipulating the aeronautical data;

(b) the action performed;

(c) the date and time the action was performed.

ADR.OPS.A.050 Data transmission

The aerodrome operator shall ensure that aeronautical data is transmitted by electronic means.

ADR.OPS.A.055 Tools and software

When originating, processing or transmitting aeronautical data to the AIS provider, the aerodrome operator shall ensure that tools and software used to support or automate aeronautical data processes perform their functions without adversely impacting the quality of the aeronautical data.".

(4) Before Subpart B, insert—

"**ADR.OPS.A.057 Origination of NOTAM**

(a) The aerodrome operator shall:

(1) establish and implement procedures in accordance with which it originates a NOTAM issued by the relevant aeronautical information services provider that contains either or both of the following:

(i) information on the establishment, condition, or change of any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel involved with flight operations;

(ii) information of a temporary nature and of short duration or that concerns operationally significant permanent changes or temporary changes of long duration (three months or longer) that are made at short notice, except for extensive text or graphics;

(2) designate aerodrome personnel, who have successfully completed relevant training and demonstrated their competence, to originate NOTAM and provide relevant information to the aeronautical information service providers with which it has arrangements;

(3) ensure that all other aerodrome personnel whose duties involve the use of NOTAM have successfully completed relevant training and demonstrated their competence to do so.

(b) The aerodrome operator shall originate a NOTAM when it is necessary to provide the following information:

(1) establishment of, closure of, or significant changes in the operation of aerodromes or heliports or runways;

(2) establishment of, withdrawal of, or significant changes in the operation of the aerodrome services;

(3) establishment of, withdrawal of, or significant changes in the operational capability of radio navigation and air-ground communication services for which the aerodrome operator is responsible;

(4) unavailability of backup and secondary systems, having a direct operational impact;

(5) establishment of, withdrawal of, or significant changes to visual aids;

(6) interruption of, or return to operation of, major components of aerodrome lighting systems;

(7) establishment of, withdrawal of, or significant changes to procedures for air navigation services for which the aerodrome operator is responsible;

(8) occurrence or correction of major defects or impediments in the manoeuvring area;

(9) changes to, and limitations on, the availability of fuel, oil and oxygen;

(10) establishment of, withdrawal of, or return to, operation of hazard beacons marking obstacles to air navigation;

(11) planned laser emissions, laser displays and search lights in the aerodrome surroundings, if pilots' night vision is likely to be impaired;

(12) erecting or removal of, or changes to, obstacles to air navigation in the take-off, climb, missed approach, approach areas, as well as on the runway strip;

(13) changes in aerodrome or heliport rescue and firefighting category;

(14) presence of, removal of, or significant changes in, hazardous conditions due to snow, slush, ice, radioactive material, toxic chemicals, volcanic ash deposition or water on the movement area;

(15) presence of a runway or portion of a runway which is slippery wet;

(16) presence of a runway which is not available due to runway marking works; or information about the time lag required for making the runway available, if the equipment used for such works can be removed, when necessary;

(17) presence of hazards that affect air navigation, including presence of wildlife, obstacles, displays and major events.

(c) For the purposes of point (b), the aerodrome operator shall ensure that:

(1) a NOTAM is originated with sufficient lead time for the affected parties to take any required action, except in the case of unserviceability, release of radioactive material, toxic chemicals and other events that cannot be foreseen;

(2) a NOTAM notifying unserviceability of associated facilities, services and navigation aids at the aerodrome, provides an estimate of the unserviceability period or of the time at which restoration of service is expected;

(3) within three months from the issuance of a permanent NOTAM, the information contained in the NOTAM is included in the aeronautical information products affected;

(4) within three months from the issuance of a temporary NOTAM of long duration (three months or longer), the information contained in the NOTAM is included in an AIP supplement;

(5) when a NOTAM with an estimated end of validity unexpectedly exceeds the three-month period, a replacement NOTAM is originated unless the condition is expected to last for a further period of more than three months; in that case, the aerodrome operator shall ensure that the information is published in an AIP supplement.

(d) In addition, the aerodrome operator shall ensure that:

(1) except as provided for in point (d)(4), each NOTAM it originates contains the applicable information in the order shown in the NOTAM format set out in ICAO PANS-AIM (Doc 10066);

(2) NOTAM text is composed of the significations or uniform abbreviated phraseology assigned to the ICAO NOTAM Code, complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language;

(3) NOTAM is originated in the English language or the national language, as agreed with the relevant aeronautical information services provider;

(4) information concerning snow, slush, ice, frost, standing water or water associated with snow, slush, ice or frost on the movement area is disseminated by means of SNOWTAM and contains the information in the order shown in the SNOWTAM format in ICAO PANS-AIM (Doc 10066);

(5) when an error has occurred in a NOTAM, a NOTAM with a new number is originated to replace the erroneous NOTAM or the erroneous NOTAM is cancelled and a new NOTAM is originated;

(6) when a NOTAM is originated to cancel or replace a previous NOTAM:

(i) the series and number/year of the previous NOTAM are indicated;

(ii) the Location Indicators and subject of both NOTAM are the same;

(7) only one NOTAM is cancelled or replaced by a new NOTAM;

(8) each originated NOTAM deals with only one subject and one condition of the subject;

(9) each originated NOTAM is as brief as possible and compiled so that its meaning is clear without the need to refer to another document;

(10) an originated NOTAM containing permanent or temporary information of long duration (three months or longer) includes appropriate references to the AIP or AIP supplement;

(11) the ICAO Location Indicator included in the text of an originated NOTAM for the aerodrome is the one contained in the Location Indicators. A curtailed form of such indicators shall not be used.

(e) The aerodrome operator shall, following the publication of a NOTAM that it has originated, review its content to ensure its accuracy, and ensure the dissemination of the information to all relevant aerodrome personnel and organisations at the aerodrome.

(f) The aerodrome operator shall maintain records:

(1) of the NOTAM it originated and those that were issued;

(2) regarding the implementation of points (a)(2) and (3).

ADR.OPS.A.060 Reporting of surface contaminants

The aerodrome operator shall report to the aeronautical information services and air traffic services units on matters of operational significance affecting aircraft and aerodrome operations on the movement area, particularly in respect of the presence of the following:

(a) water;

(b) snow;

(c) slush;

(d) ice;

(e) frost;

(f) anti-icing or de-icing liquid chemicals or other contaminants;

(g) snowbanks or drifts.

ADR.OPS.A.065 Reporting of the runway surface condition

(a) The aerodrome operator shall report the runway surface condition over each third of the runway using a runway condition report (RCR). The report shall include a runway condition code (RWYCC) using numbers 0 to 6, the contaminant coverage and depth, and a description using the following terms:

— COMPACTED SNOW;

— DRY;

— DRY SNOW;

— DRY SNOW ON TOP OF COMPACTED SNOW;

— DRY SNOW ON TOP OF ICE;

— FROST;

— ICE;

— SLUSH;

— STANDING WATER;

— WATER ON TOP OF COMPACTED SNOW;

— WET;

— WET ICE;

— WET SNOW;

— WET SNOW ON TOP OF COMPACTED SNOW;

— WET SNOW ON TOP OF ICE.

(b) Reporting shall commence when a significant change in runway surface condition occurs due to water, snow, slush, ice or frost.

(c) Reporting of the runway surface condition shall continue to reflect significant changes until the runway is no longer contaminated. When that situation occurs, the aerodrome operator shall issue an RCR that states that the runway is wet or dry as appropriate.

(d) Friction measurements shall not be reported.

(e) When a paved runway or portion of a paved runway is slippery wet, the aerodrome operator shall make such information available to the relevant aerodrome users. That shall be done by originating a NOTAM and shall describe the location of the affected portion.".

(5) After point ADR.OPS.B.035, insert—

"**ADR.OPS.B.037 Assessment of runway surface condition and assignment of runway condition code**

Whenever the contaminants listed in points ADR.OPS.A.060(a) to (e) are present on the surface of a runway, the aerodrome operator shall:

(a) assign a RWYCC based on the type and depth of the contaminant and temperature;

(b) inspect the runway whenever the runway surface condition may have changed due to meteorological conditions, assess the runway surface condition and assign a new RWYCC;

(c) use special air-reports to trigger reassessment of RWYCC.".

CHAPTER 4

Amendment of Commission Regulation (EU) No 1321/2014

Commission Regulation (EU) No 1321/2014 (continuing airworthiness)

16. Commission Regulation (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks, is amended in accordance with regulation 17.

Amendment of Annex 1 to Commission Regulation (EU) No 1321/2014

17. In Annex 1 (Part-M), after point M.A.302(d)(2)(ii) insert—

"(3) the applicable provisions of Annex I (Part-26) to Regulation (EU) 2015/640.".

CHAPTER 5

Amendment of Commission Regulation (EU) No 2015/640

Commission Regulation (EU) 2015/640 (airworthiness specifications)

18. Commission Regulation (EU) 2015/640 of 23 April 2015 on additional airworthiness specifications for a given type of operations and amending Regulation (EU) No 965/2012(**6**) is amended in accordance with regulations 19 to 21.

Amendment of Article 1 of Commission Regulation (EU) 2015/640

19. For Article 1 (scope) substitute—

"**1.** This Regulation lays down common additional airworthiness specifications related to the continuing airworthiness and safety improvements of aircraft.

2. This Regulation applies to:

(a) operators of:

(i) aircraft registered in the United Kingdom;

(ii) aircraft registered in a third country and used by an operator over which the United Kingdom ensures oversight;

(b) holders of a type-certificate, restricted type-certificate, supplemental type-certificate or a change and repair design approval approved by the CAA in accordance with Commission Regulation (EU) No 748/2012 or deemed to have been issued in accordance with Article 3 of that Regulation;

(c) the applicants for a type-certificate or a restricted type-certificate for a turbine-powered large aeroplane, for which the application was submitted before 1 January 2019 and who are issued with the certificate after 26 August 2020 when specified in Annex I (Part-26).".

Amendment of Article 2 Commission Regulation (EU) 2015/640

20. For Article 2 (definitions), substitute—

"For the purposes of this Regulation,

(a) 'airworthiness limitation section' (ALS) means a section in the instructions for continued airworthiness, as required by points 21.A.61, 21.A.107 and 21.A.120A of Annex I (Part 21) to Regulation (EU) No 748/2012, that contains airworthiness limitations that set out each mandatory replacement time, inspection interval and related inspection procedure;

(b) 'baseline structure' refers to the structure that is designed under the type certificate for that aeroplane model (that is, the 'as delivered aeroplane model configuration');

(c) 'corrosion prevention and control programme' (CPCP) means a document reflecting a systematic approach to prevent and to control corrosion in an aeroplane's primary structure, consisting of basic corrosion tasks, including inspections, areas subject to those tasks, defined corrosion levels and compliance times (implementation thresholds and repeat intervals). A baseline CPCP is established by the type certificate holder, which can be adapted by operators to create a CPCP in their maintenance programme specific to their operations;

(**6**) EUR 2015/640, amended by S.I. 2019/645chapter

(d) 'damage tolerance evaluation' (DTE) is a process that leads to a determination of maintenance actions necessary to detect or preclude fatigue cracking that could contribute to a catastrophic failure. When applied to repairs and changes, a DTE includes the evaluation of the repair or change and the fatigue critical structure affected by the repair or change;

(e) 'damage tolerance inspection' (DTI) means a documented inspection requirement or other maintenance action developed by holders of a type-certificate or restricted type-certificate as a result of a damage tolerance evaluation. A DTI includes the areas to be inspected, the inspection method, the inspection procedures (including the sequential inspection steps and acceptance and rejection criteria), the inspection threshold and any repetitive intervals associated with those inspections. DTIs may also specify maintenance actions such as replacement, repair or modification;

(f) 'fatigue-critical baseline structure' (FCBS) means the baseline structure of an aeroplane that is classified by the type certificate holder as a fatigue-critical structure;

(g) 'fatigue-critical structure' (FCS) means a structure of an aeroplane that is susceptible to fatigue cracking that could lead to a catastrophic failure of the aeroplane;

(h) 'fatigue-critical modified structure' (FCMS) means any fatigue critical structure of an aeroplane introduced or affected by a change to its type design and that is not already listed as part of the fatigue-critical baseline structure;

(i) 'limit of validity' (LOV) means, in the context of the engineering data that supports the structural maintenance programme, a period of time, stated as a number of total accumulated flight cycles or flight hours or both, during which it is demonstrated that widespread fatigue damage will not occur in the aeroplane;

(j) 'maximum operational passenger seating configuration' means the maximum passenger seating capacity of an individual aircraft, excluding crew seats, established for operational purposes and specified in the operations manual;

(k) 'large aeroplane' means an aeroplane that has the Certification Specifications for large aeroplanes ' CS-25 ' or equivalent in its certification basis;

(l) 'large helicopter' means a helicopter that has the Certification Specifications for large rotorcraft ' CS-29 ' or equivalent in its certification basis;

(m) 'low-occupancy aeroplane' means an aeroplane that has a maximum operational passenger seating configuration of:

(1) up to and including 19 seats, or;

(2) up to and including one third of the maximum passenger seating capacity of the type-certified aeroplane, as indicated in the aeroplane type-certificate data sheet (TCDS), provided that both of the following conditions are met:

(a) the total number of passenger seats approved for occupancy during taxiing, take-off or landing does not exceed 100 per deck;

(b) the maximum operational passenger seating configuration during taxiing, take-off or landing in any individual zone between pairs of emergency exits (or any dead-end zone) does not exceed one third of the sum of the passenger seat allowances for the emergency exit pairs bounding that zone (using the passenger seat allowance for each emergency exit pairs as defined by the applicable certification basis of the aeroplane). For the purpose of determining compliance with this zonal limitation, in the case of

an aeroplane that has deactivated emergency exits, it shall be assumed that all emergency exits are functional.

(n) 'repair evaluation guideline' (REG) means a process established by the type certificate holder that guides operators to establish damage tolerance inspections for repairs that affect fatigue-critical structure to ensure the continued structural integrity of all relevant repairs;

(o) 'widespread fatigue damage' (WFD) means a simultaneous presence of cracks at multiple locations in the structure of an aeroplane that are of such size and number that the structure will no longer meet the fail-safe strength or residual strength used for certification of that structure.".

Amendment of Annex 1 to Commission Regulation (EU) 2015/640

21.—(1) Annex 1 (Part-26 – additional airworthiness specifications for operations) is amended as follows.

(2) For the Table of Contents, substitute—

— "SUBPART A – GENERAL PROVISIONS
— 26.20 Temporary inoperative equipment
— 26.30 Demonstration of compliance
— SUBPART B – LARGE AEROPLANES
— 26.50 Seats, berths, safety belts, and harnesses
— 26.60 Emergency landing – dynamic conditions
— 26.100 Location of emergency exits
— 26.105 Emergency exit access
— 26.110 Emergency exit markings
— 26.120 Interior emergency lighting and emergency light operation
— 26.150 Compartment interiors
— 26.155 Flammability of cargo compartment liners
— 26.156 Thermal or acoustic insulation materials
— 25.157 Conversion of Class D compartments
— 26.160 Lavatory fire protection
— 26.170 Fire extinguishers
— 26.200 Landing gear aural warning
— 26.205 Runway overrun awareness and alerting systems
— 26.250 Flight crew compartment door operating systems – single incapacitation
— 26.300 Continuing structural integrity programme for ageing aeroplanes structures – general requirements
— 26.301 Compliance Plan for (R)TC holders
— 26.302 Fatigue and damage tolerance evaluation
— 26.303 Limit of Validity
— 26.304 Corrosion prevention and control programme
— 26.305 Validity of the continuing structural integrity programme
— 26.306 Fatigue critical baseline structure

— 26.307 Damage tolerance data for existing changes to fatigue critical structure

— 26.308 Damage tolerance data for existing repairs to fatigue critical structure

— 26.309 Repair evaluation guidelines

— 26.330 Damage tolerance data for existing supplemental type-certificates (STCs), other existing major changes and existing repairs affecting those changes or STCs

— 26.331 Compliance Plan for STC holders

— 26.332 Identification of changes affecting fatigue critical structure

— 26.333 Damage tolerance data for STCs and repairs to those STCs approved on or after 1 September 2003

— 26.334 Damage tolerance data for STCs and other changes and repairs to those changes approved before 1 September 2003

— 26.370 Continuing airworthiness tasks and aircraft maintenance programme

— SUBPART C – LARGE HELICOPTERS

— 26.400 Fire extinguishers

— Appendix I – List of aeroplane models not subject to certain provisions of Annex I (Part 26)".

(3) In point 26.30—

(a) for point (a) substitute—

"(a) The CAA shall issue, in accordance with Article 76(3) of Regulation (EU) 2018/1139, certification specifications as standard means to demonstrate compliance with this Annex. The certification specifications shall be sufficiently detailed and specific to indicate the conditions under which compliance with the requirements of this Annex may be demonstrated.";

(b) for point (b) substitute—

"(b) Operators and holders of a type certificate, restricted type certificate, supplemental type certificate or a change and repair design approval may demonstrate compliance with the requirements of this Annex by complying with either of the following:

(i) the specifications issued by the CAA under point (a) of this point or the equivalent certification specifications issued by the CAA under point 21.B.70 of Annex I to Regulation (EU) No 748/2012;

(ii) technical standards offering an equivalent level of safety to those included in those certification specifications.";

(c) after point 26.30(b) insert—

"(c) Holders of a type certificate, restricted type certificate, supplemental type certificate or a change and repair design approval shall make available to each known operator of the aeroplanes any changes to the "Instructions for Continued Airworthiness" (ICA) required to demonstrate compliance with this Annex. For the purposes of this Regulation, the ICA also include damage tolerance inspections (DTIs), repair evaluation guidelines (REGs), a baseline corrosion prevention and control programme (CPCP) and a list of fatigue-critical structures (FCSs) and airworthiness limitation sections (ALSs).".

(4) For the text of point 26.60 substitute—

"Operators of large aeroplanes used in commercial air transport of passengers, type-certified on or after 1 January 1958, and for which the individual certificate of airworthiness is first issued on or after 26 February 2021 shall demonstrate for each seat type design approved for occupancy during

taxiing, take-off or landing that the occupant is protected when exposed to loads resulting from emergency landing conditions. The demonstration shall be made by one of the following means:

(a) successfully completed dynamic tests;

(b) rational analysis providing equivalent safety, based on dynamic tests of a similar seat type design.

The obligation set out in the first point shall not apply to the following seats:

(a) flight deck crew seats;

(b) seats in low-occupancy aeroplanes involved only in on-demand non-scheduled commercial air transport operations;

(c) seats in an aeroplane model listed in Table A.1 of Appendix 1 and carrying a manufacturer serial number listed in that Table.".

(5) After point 26.156 insert—

"**26.157 Conversion of Class D compartments**

Operators of large aeroplanes used in commercial air transport, type certified on or after 1 January 1958 shall ensure that:

(a) for aeroplanes, the operation of which involves the transport of passengers, each Class D cargo or baggage compartment, regardless of its volume, complies with the certification specifications applicable to a Class C compartment;

(b) for aeroplanes, the operation of which involves the transport of cargo only, each Class D cargo compartment, regardless of its volume, complies with the certification specifications applicable to either a Class C or a Class E compartment.".

(6) After point 26.200 insert—

"**26.205 Runway overrun awareness and alerting systems**

(a) Operators of large aeroplanes used in commercial air transport shall ensure that every aeroplane for which the first individual certificate of airworthiness was issued on or after 1 January 2026, is equipped with a runway overrun awareness and alerting system.

(b) This system shall be designed in a manner allowing to reduce the risk of a longitudinal runway excursion during landing by providing an alert, in-flight and on the ground, to the flight crew when the aeroplane is at risk of not being able to stop within the available distance to the end of the runway.".

(7) After point 26.250 insert—

"**26.300 Continuing structural integrity programme for ageing aeroplanes structures – general requirements**

(a) A holder of a type-certificate (TC) or a restricted TC for a turbine-powered large aeroplane certified on or after 1 January 1958, for which the application for TC was submitted before 1 January 2019, shall establish a continuing structural integrity programme for ageing aeroplane structures, which shall comply with the requirements set out in points 26.301 to 26.309.

(b) Point (a) shall not apply to an aeroplane model which was issued with a type-certificate before 26 February 2021 and which meets any of the following conditions:

(i) it is listed in Table A.1 of Appendix 1 of this Annex;

(ii) it is no longer operated after 26 February 2021;

(iii) it has not been certified to conduct civil operation with a payload or passengers;

(iv) it has a restricted TC issued before 26 February 2021 in accordance with damage tolerance requirements, provided that it is not operated beyond 75 % of its design service goal and is primarily operated in support of the approval holder's manufacturing operation;

(v) it is certified with a restricted TC and is designed primarily for firefighting.

The exceptions provided for in points (b)(ii) to (b)(v) shall apply only if the holder of a type-certificate (TC) or a restricted TC submits to the CAA before 27 May 2022 for approval a list identifying the aeroplane type and models, variations or serial numbers together with information supporting the reasons why the aeroplane has been included in the list.

(c) For an aeroplane model which was issued with a first type-certificate before 26 February 2021 and for which an existing change or repair is not and will not be incorporated in any aeroplane in operation on and after 26 February 2023 points (a)(ii) and (a)(iii) of point 26.307 and point (a)(ii) of point 26.308 shall not apply if before 26 February 2023 the holder of a type-certificate (TC) or a restricted TC submits to the CAA for the approval the list of all changes and repairs.

26.301 Compliance Plan for (R)TC holders

(a) A holder of a type-certificate (TC) or a restricted TC for a turbine-powered large aeroplane certified on or after 1 January 1958, for which the application for TC was submitted before 1 January 2019 shall:

(i) establish a compliance plan for continuing structural integrity that describes the planned demonstration of compliance with the requirements set out in points 26.302 to 26.309;

(ii) submit the compliance plan for continuing structural integrity referred in point (i) to the CAA before 27 May 2022 for approval.

(b) An applicant for a TC or restricted TC referred to in Article 1 paragraph 2(c) shall:

(i) establish a compliance plan for continuing structural integrity that describes the planned demonstration of compliance with the requirements set out in points 26.303 to 26.306;

(ii) submit the compliance plan for continuing structural integrity referred to in point (i) to the CAA before 27 May 2022 or, before the issuance of the certificate, if it occurs later, for approval.

26.302 Fatigue and damage tolerance evaluation

(a) A holder of a type-certificate (TC) or a restricted TC, for a turbine-powered large aeroplane certified to carry 30 passengers or more, or with a payload capacity of 3 402 kg (7 500 lbs) or more, certified on or after 1 January 1958, for which the application for TC was submitted before 1 January 2019, shall carry out a fatigue and damage tolerance evaluation of the aeroplane structure and develop the DTI that will avoid catastrophic failures due to fatigue throughout the operational life of the aeroplane.

(b) Unless the documentation describing the DTI referred to in point (a) have already been approved by the CAA in accordance with Annex I (Part 21) to Regulation (EU) No 748/2012, the holder of a TC or a restricted TC shall submit that documentation to the CAA before 26 February 2024 for approval.

26.303 Limit of Validity

(a) A holder of a type-certificate (TC) or a restricted TC, for a turbine-powered large aeroplane certified on or after 1 January 1958, for which the application for TC was submitted before 1 January 2019, certified with a maximum take-off weight (MTOW) greater than 34 019 kg (75 000 lbs), shall:

(i) establish a limit of validity (LOV) and include that LOV in an amended ALS;

(ii) identify existing and new maintenance actions upon which the LOV depends, and develop service information necessary for operators to implement those maintenance actions and submit the service information for the maintenance actions to the CAA in accordance with a binding schedule agreed with the CAA.

The aeroplane structural configurations to be evaluated for the purpose of establishing the LOV shall include all model variations and derivatives approved under the TC before 26 February 2021 and all structural changes and replacements to the structural configurations of those aeroplanes that are required by an airworthiness directive issued before 26 February 2021.

By way of derogation from point (a)(ii), a holder of a type-certificate (TC) or a restricted TC for a turbine-powered large aeroplane shall not be required to develop and submit to the CAA the service information for a maintenance action applicable to an aeroplane model which will no longer be operated after the scheduled point of submittal for the service information of that maintenance action. For this exception to take effect, the holder of a type-certificate (TC) or a restricted TC shall inform the CAA not later than the date at which the aeroplane model ceases operation.

(b) The holder of the type-certificate (TC) or the restricted TC shall submit the LOV established in accordance with point (a) and the amendment to the ALS referred to in that point together with the binding schedule to the CAA for approval, before the deadlines established in points (i) to (iii):

(i) 26 August 2023 for fatigue critical structure with a certification basis that does not include a damage tolerance evaluation;

(ii) 26 February 2027 for aeroplane structure subject to ongoing full-scale fatigue testing at the date of the applicability of this amending Regulation;

(iii) 26 February 2026 for all other aeroplane structures.

(c) An applicant for a TC or restricted TC as referred in Article 1 paragraph 2(c), for a turbine-powered large aeroplane with a maximum take-off weight (MTOW) greater than 34 019 kg (75 000 lbs), shall:

(i) establish a limit of validity (LOV) and include that LOV in the ALS;

(ii) identify existing and new maintenance actions upon which the LOV depends, and develop service information necessary for operators to implement those maintenance actions and submit the service information for the maintenance actions to the CAA in accordance with a binding schedule agreed with the CAA.

(d) The applicant for a TC or restricted TC as referred in Article 1 paragraph 2(c) shall submit the LOV established in accordance with point (c) above and the ALS referred to in that point together with the binding schedule to the CAA, for approval.

(e) The following deadlines shall apply to the obligations referred to in point (d):

(i) before the date approved by the CAA in the plan of the applicant for completing tests and analyses of any aeroplane structure requiring new full-scale fatigue testing to support establishment of the LOV;

(ii) before 26 February 2026 for all other aeroplane structures.

26.304 Corrosion prevention and control programme

(a) A holder of a type-certificate (TC) or a restricted TC for a turbine-powered large aeroplane certified on or after 1 January 1958, for which the application for TC was submitted before 1 January 2019, shall establish a baseline corrosion prevention and control programme (CPCP).

(b) Unless the baseline CPCP referred to in point (a) has already been approved by the CAA in accordance with point 21.A.3B(c)(1) of Annex 1 to Regulation (EU) No 748/2012 or in a maintenance review board report (MRBR) approved by the CAA, the holder of a type-certificate (TC) or a restricted TC shall submit the CPCP to the CAA before 26 February 2024, for approval.

(c) An applicant for a TC or restricted TC as referred to in Article 1 paragraph 2(c), for a turbine-powered large aeroplane shall establish a baseline corrosion prevention and control programme (CPCP) prior to the TC being issued.

26.305 Validity of the continuing structural integrity programme

(a) A holder of a type-certificate (TC) or a restricted TC for a turbine-powered large aeroplane certified on or after 1 January 1958, for which the application for TC was submitted before 1 January 2019, shall establish and implement a process that ensures that the continuing structural integrity programme remains valid throughout the operational life of the aeroplane, taking into account service experience and current operations.

(b) The holder of a type-certificate (TC) or a restricted TC shall submit a description of the process referred to in point(a) to the CAA before 26 February 2024 for approval. The holder of a type-certificate (TC) or a restricted TC shall implement the process within 6 months after its approval by the CAA.

(c) An applicant for a TC or restricted TC as referred to in Article 1 paragraph 2(c) for a turbine-powered large aeroplane, shall establish and implement a process that ensures that the continuing structural integrity programme remains valid throughout the operational life of the aeroplane, taking into account service experience and current operations. It shall submit a description of the process to the CAA before 26 February 2024, or before the issuance of the certificate, whichever occurs later, for approval and shall implement the process within 6 months after its approval by the CAA.

26.306 Fatigue critical baseline structure

(a) A holder of a type-certificate (TC) or a restricted TC for a turbine-powered large aeroplane certified on or after 1 January 1958, for which the application for TC was submitted before 1 January 2019 and certified to carry 30 passengers or more, or with a payload capacity of 3 402 kg (7 500 lbs) or more shall identify and list the fatigue-critical baseline structures (FCBS) for all aeroplane model variations and derivatives included in the TC or restricted TC.

(b) The holder of a type-certificate (TC) or a restricted TC shall submit the list of the structures referred to in point (a) to the CAA before 26 August 2022 for approval.

(c) Upon approval of the list referred to in point (a) by the CAA, the holder of a type-certificate (TC) or a restricted TC shall make it available to operators and persons required to comply with points 26.330 and 26.370.

(d) An applicant for a TC or restricted TC as referred to in Article 1 paragraph 2(c), for a turbine-powered large aeroplane to be certified to carry 30 passengers or more, or with a payload capacity of 3 402 kg (7 500 lbs) or more shall identify and list the fatigue-critical baseline structures (FCBS) for all aeroplane model variations and derivatives included in the TC or restricted TC. It shall submit the list of these structures to the CAA before 26 August 2022, or before the issuance of the certificate, whichever occurs later, for approval.

(e) Upon approval of the list referred to in point (d) by the CAA, the applicant for a TC or restricted TC as referred to Article 1 paragraph 2(c) shall make it available to operators and persons required to comply with point 26.370.

26.307 Damage tolerance data for existing changes to fatigue-critical structure

(a) A holder of a type-certificate (TC) or restricted TC for a turbine-powered large aeroplane certified on or after 1 January 1958 certified to carry 30 passengers or more, or with a payload capacity of 3 402 kg (7 500 lbs) or more, for changes and fatigue-critical modified structure (FCMS) existing on 26 February 2021 shall:

(i) review existing design changes (design modifications) and identify all changes that affect FCBS identified in accordance with point 26.306;

(ii) for each change identified in accordance with point (a)(i), identify any associated fatigue-critical modified structure (FCMS);

(iii) for each change identified in accordance with point (a)(i), perform a damage tolerance evaluation and establish and document the associated damage tolerance inspections;

(b) The holder of a type-certificate (TC) or a restricted TC shall submit the list of all fatigue-critical modified structure (FCMS) identified in accordance with point (a)(ii) to the CAA before 26 February 2023, for approval.

(c) The holder of a type-certificate (TC) or a restricted TC shall submit the damage tolerance data, including DTI, resulting from the evaluation performed in accordance with point (a)(iii) to the CAA before 26 August 2023 for approval.

(d) Upon approval by the CAA of the FCMS list submitted in accordance with point (b), the holder of a type-certificate (TC) or restricted shall make that list available to operators and persons required to comply with points 26.330 and 26.370.

26.308 Damage tolerance data for existing repairs to fatigue-critical structure

(a) A holder of a type-certificate (TC) or restricted TC for a turbine-powered large aeroplane certified on or after 1 January 1958 certified to carry 30 passengers or more, or with a payload capacity of 3 402 kg (7 500 lbs) or more, for published repairs existing on 26 February 2021 shall:

(i) review the repair data and identify each repair specified in the data that affects the fatigue-critical baseline structure and the fatigue-critical modified structure identified in accordance with point (a) of point 26.306 and point (a)(ii) of point 26.307;

(ii) perform a damage tolerance evaluation for each repair identified in accordance with point (a)(i), unless previously done.

(b) The holder of a type-certificate (TC) or restricted TC shall submit the damage tolerance data, including DTI, resulting from the evaluation performed in accordance with point (a)(ii) to the CAA before 26 May 2023 for approval, unless already approved in accordance with point 21.A.435(b)(2) of Annex I (Part 21) to Regulation (EU) No 748/2012 before 26 August 2023.

26.309 Repair evaluation guidelines

(a) A holder of a type-certificate (TC) or restricted TC for a turbine-powered large aeroplane certified on or after 1 January 1958 certified to carry 30 passengers or more, or with a payload capacity of 3 402 kg (7 500 lbs) or more and for which the TC or restricted TC was issued prior to 11 January 2008, shall develop repair evaluation guidelines (REGs) to establish:

(i) a process for conducting surveys of affected aeroplane that enables the identification and documentation of all existing repairs affecting the fatigue-critical structure identified in accordance with point (a) of point 26.306 and point (a)(ii) of point 26.307;

(ii) a process that enables operators to obtain a DTI for repairs identified in accordance with point (a)(i);

(iii) an implementation schedule that provides time frames for conducting aeroplane surveys, obtaining DTIs and incorporating DTIs into the maintenance programme of the operator of the aeroplane.

(b) The holder of a TC or a restricted TC shall submit the repair evaluation guidelines developed in accordance with point (a) to the CAA before 26 February 2024, for approval.

26.330 Damage tolerance data for existing supplemental type-certificates (STCs), other existing major changes and existing repairs affecting those changes or STCs

(a) A holder of a STC issued before 26 February 2022 for a major change, or a holder of a major change that has been deemed approved in accordance with Article 4 of Regulation (EU) No 748/2012, for large aeroplanes certified on or after 1 January 1958 to carry 30 or more passengers or that have a payload capacity of 3 402 kg (7 500 lbs) or more, shall support operators required to comply with point 26.370(a)(ii) by addressing the adverse effects of those changes and repairs to those changes on the aeroplane structure and shall comply with the requirements set out in points 26.331 to 26.334.

(b) Point (a) shall not apply to major changes and repairs to an aeroplane model first certified prior to 26 February 2022 when that aeroplane model meets any of the following conditions:

(i) it is listed in Table A.1 of Appendix 1;

(ii) it no longer operates after 26 February 2022;

(iii) it has not been certified to conduct civil operation with a payload or passengers;

(iv) it has a restricted TC and have been certified in accordance with damage tolerance requirements, provided that it is not operated beyond 75 % of its design service goal and is primarily operated in support of the restricted TC holders manufacturing operation;

(v) it is certified with a restricted TC and is designed primarily for firefighting;

(c) Point (a) shall not apply to major changes and repairs to an aeroplane first certified prior to 26 February 2022 when the changes or repairs are not, and will not be, embodied on any aeroplane in operation on or after 26 August 2023.

(d) The exceptions provided for in points (b)(ii) to (b)(v) and (c) shall apply only after the change approval holder submits a list of changes that affect fatigue-critical baseline structure, together with information supporting the reasons why each change has been included in the list, to the CAA before 26 February 2023 for approval.

26.331 Compliance Plan for STC holders

A holder of a change approval shall:

(a) establish a compliance plan that addresses the requirements of points 26.332 to 26.334;

(b) submit the compliance plan referred in point (a) to the CAA before 25 August 2022, for approval.

26.332 Identification of changes affecting fatigue critical structure

(a) A holder of a change approval shall:

(i) review the changes and shall identify those changes that affect fatigue-critical baseline structure;

(ii) for each change identified in accordance with point (a)(i), identify any associated FCMS;

(iii) identify the published repairs affecting each change identified in accordance with point (a)(i).

(b) The holder of a change approval that was issued on or after 1 September 2003, shall develop and submit a list of the changes and FCMS identified in accordance with points (a)(i) and (a)(ii) to the CAA before 26 February 2023 for approval, and, upon approval by the CAA, make the list available to persons and operators required to comply with point (b)(ii) of point 26.370.

(c) The holder of a change approval that was issued before 1 September 2003 shall:

(i) develop and submit a list of the changes identified in accordance with point (a)(i) to the CAA before 26 February 2023, for approval;

(ii) upon request of an operator required to comply with point 26.370(a)(ii) for a change, identify and list any FCMS associated with the change and submit this data to the CAA within 12 months from the operator's request, for approval;

(iii) upon approval of any data submitted according to points (c)(i) and (c)(ii), make that data available to persons and operators required to comply with points (b)(ii) of point 26.370.

26.333 Damage tolerance data for STCs and repairs to those STCs approved on or after 1 September 2003

(a) A holder of a change approval that was issued on or after 1 September 2003 shall:

(i) for changes and published repairs identified in accordance with point (a)(i) of point 26.332 and point (a)(iii) of point 26.332, perform a damage tolerance evaluation;

(ii) establish and document the associated damage tolerance inspection, unless it has already been done.

(b) The holder of a change approval shall submit the damage tolerance data resulting from the damage tolerance evaluation performed in accordance with point (a)(i) to the CAA before 26 February 2024, for approval, unless it is already approved in accordance with point 21.B.111 of Annex I (Part 21) to Regulation (EU) No 748/2012.

(c) By way of derogation from point (b), for changes that did not have a damage tolerance evaluation requirement in the certification basis, the holder of a change approval identified in point (a) shall submit the damage tolerance data resulting from the damage tolerance evaluation performed in accordance with point (a) to the CAA, within the following deadlines, whichever occurs later, for approval:

(i) prior to an aeroplane with that change embodied being operated in accordance with Annex IV (Part-CAT) to Regulation (EU) No 965/2012; or

(ii) before 26 February 2024.

26.334 Damage tolerance data for STCs and other changes and repairs to those changes approved before 1 September 2003

(a) Upon request of an operator required to comply with point 26.370(a)(ii), a holder of a change approval that was issued before 1 September 2003 shall:

(i) for changes and published repairs identified in accordance with point (a)(i) of point 26.332 and point (a)(iii) of point 26.332, perform a damage tolerance evaluation;

(i) establish and document the associated damage tolerance inspection, unless it has already been done.

(b) The holder of a change approval shall submit the damage tolerance data resulting from the evaluation performed in accordance with point (a)(i) to the CAA:

(i) within 24 months from receipt of a request, for requests received prior to 26 February 2024, for approval; or

(ii) before 26 February 2026 or within 12 months from receipt of a request, whichever occurs later, for requests received on or after 26 February 2024, for approval.

26.370 Continuing airworthiness tasks and aircraft maintenance programme

(a) Operators or owners of turbine-powered large aeroplanes certified on or after 1 January 1958 shall ensure the continuing airworthiness of ageing aeroplanes structures by preparing the aircraft maintenance programme provided for in point M.A.302 of Annex I (Part-M) to Commission Regulation (EU) No 1321/2014. Subject to the following provisions, this programme shall include:

(i) for aeroplanes certified to carry 30 passengers or more, or with a payload capacity greater than 3 402 kg (7 500 lbs), an approved damage-tolerance-based inspection programme;

(ii) for aeroplanes operated in accordance with Annex IV (Part-CAT) to Regulation (EU) No 965/2012 and certified to carry 30 passengers or more or with a payload capacity greater than 3 402 kg (7 500 lbs), a means for addressing the adverse effects that repairs and modifications may have on fatigue-critical structure and on inspections provided for in point (a)(i);

(iii) for aeroplanes certified with a maximum take-off weight (MTOW) greater than 34 019 kg (75 000 lbs) an approved LOV;

(iv) a CPCP.

(b) The following deadlines shall apply to the obligation referred to in point (a):

(i) the aircraft maintenance programme shall be revised to address the requirements of points (a)(i), (a)(ii) and (a)(iv) before 26 February 2025 or before operating the aeroplane, whichever occurs later;

(ii) the aircraft maintenance programme shall be revised to address the requirements of point (a)(iii) before 26 August 2022 or 6 months after the publication of the LOV, or before operating the aeroplane, whichever occurs later.

(c) For an aeroplane model first certified before 26 February 2022 that no longer operates after 26 February 2025 points (a)(i), (a)(ii) and (a)(iv) shall not apply.

(d) For an aeroplane model first certified before 26 February 2022 that no longer operates after 26 August 2022 point (a)(iii) shall not apply.

(e) For an aeroplane model first certified before 26 February 2022 with a restricted TC issued before 26 February 2022 in accordance with damage tolerance requirements, provided that it is not operated beyond 75 % of its design service goal and is primarily operated in support of the approval holder's manufacturing operation, points (a)(i), (a)(ii) and (a)(iv) shall not apply.

(f) For an aeroplane model with a restricted type certificate issued before 26 February 2022 and the primary purpose of which is firefighting, points (a)(i) and (a)(ii) shall not apply.".

(8) After point 26.400 insert—

"Appendix 1

List of aeroplane models not subject to certain provisions of Annex I (Part-26)

Table A 1

TC Holder	**Type**	**Models**	**Manufacturer serial number**	**Provisions of Annex I (Part-26) that do NOT apply**
The Boeing Company	707	All		26.301 to 26.334
The Boeing Company	720	All		26.301 to 26.334
The Boeing Company	DC-10	DC-10-10 DC-10-30 DC-10-30F	All	26.301 to 26.334
The Boeing Company	DC-8	All		26.301 to 26.334
The Boeing Company	DC-9	DC-9-11, DC-9-12, DC-9-13, DC-9-14,DC-9-15, DC-9-15F, DC-9-21, DC-9-31,DC-9-32, DC-9-32 (VC-9C), DC-9-32F,DC-9-32F (C-9A, C-9B), DC-9-33F, DC-9-34, DC-9-34F, DC-9-41, DC-9-51	All	26.301 to 26.334
The Boeing Company	MD-90	MD-90-30	All	26.301 to 26.334
FOKKER SERVICES B.V.	F27	Mark 100, 200, 300, 400, 500, 600, 700	All	26.301 to 26.334
FOKKER SERVICES B.V.	F28	Mark 1000, 1000C, 2000, 3000, 3000C, 3000R, 3000RC, 4000	All	26.301 to 26.334

TC Holder	Type	Models	Manufacturer serial number	Provisions of Annex I (Part-26) that do NOT apply
GULFSTREAM AEROSPACE CORP.	G-159	G-159 (Gulfstream I)	All	26.301 to 26.334
GULFSTREAM AEROSPACE CORP.	G-II_III_IV_V	G-1159A (GIII) G-1159B (GIIB) G-1159 (GII)	All	26.301 to 26.334
KELOWNA FLIGHTCRAFT LTD.	CONVAIR 340/440	440	All	26.301 to 26.334
LEARJET INC.	Learjet 24/25/31/36/35/55/60	24,24 A,24B,24B-A,24D, 24D-A,24F,24F-A,25,25B,25C,25D,25F	All	26.301 to 26.334
LOCKHEED MARTIN CORPORATION	1329	All		26.301 to 26.334
LOCKHEED MARTIN CORPORATION	188	All		26.301 to 26.334
LOCKHEED MARTIN CORPORATION	382	382, 382B, 382E, 382F, 382G	All	26.301 to 26.334
LOCKHEED MARTIN CORPORATION	L-1011	All		26.301 to 26.334
PT. DIRGANTARA INDONESIA	CN-235	All		26.301 to 26.334
SABRELINER CORPORATION	NA-265	NA-265-65	All	26.301 to 26.334
VIKING AIR LIMITED	SD3	SD3-30 Sherpa SD3 Sherpa	All	26.301 to 26.334

TC Holder	Type	Models	Manufacturer serial number	Provisions of Annex I (Part-26) that do NOT apply
VIKING AIR LIMITED	DHC-7	All		26.301 to 26.334
VIKING AIR LIMITED	CL-215	CL-215-6B11	All	26.301 to 26.334
TUPOLEV PUBLIC STOCK COMPANY	TU-204	204-120CE	All	26.301 to 26.334
AIRBUS	A320 series	A320-251N, A320-271N	10033, 10242, 10281 and 10360	26.60
AIRBUS	A321 series	A321-271NX, A321-251NX	10071, 10257, 10371 and 10391	26.60
AIRBUS	A330 series	A330-243, A330-941	1844, 1861, 1956, 1978, 1982, 1984, 1987, 1989, 1998, 2007, 2008, 2011, and 2012	26.60
ATR-GIE Avions de Transport Régional	ATR 72 series	ATR72-212A	1565, 1598, 1620, 1629, 1632, 1637, 1640, 1642, 1649, 1657, 1660, 1661	26.60
The Boeing Company	737 series	737-8 and 737-9	43299, 43304, 43305, 43310, 43321, 43322, 43332, 43334, 43344, 43348, 43391, 43579, 43797, 43798 43799, 43917, 43918, 43919, 43921, 43925, 43927, 43928, 43957, 43973, 43974, 43975, 43976, 44867, 44868, 44873, 60009, 60010, 60040, 60042,	

TC Holder	Type	Models	Manufacturer serial number	Provisions of Annex I (Part-26) that do NOT apply
			60056, 60057, 60058, 60059, 60060, 60061, 60063, 60064, 60065, 60066, 60068, 60194, 60195, 60389, 60434, 60444, 60455, 61857, 61859, 61862, 61864, 62451, 62452, 62453, 62454, 62533, 63358, 63359, 63360, 64610, 64611, 64612, 62613, 64614, 65899, 66147, 66148, 66150”	

CHAPTER 6

Amendment of Commission Implementing Regulation (EU) No 2017/373

Commission Implementing Regulation (EU) 2017/373 (air traffic management/air navigation services)

22. Commission Implementing Regulation (EU) 2017/373 of 1 March 2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, repealing Regulation (EC) No 482/2008, Implementing Regulations (EU) No 1034/2011, (EU) No 1035/2011 and (EU) 2016/1377 and amending Regulation (EU) No 677/2011(**7**) is amended in accordance with regulations 23 to 29.

Amendment of Article 2 of Commission Implementing Regulation (EU) 2017/373

23. In Article 2 (definitions), for point (2) substitute—

> “(2) “ATM/ANS provider” means any legal or natural person providing any of the ATM/ANS as defined by Article 3(5) of Regulation (EU) 2018/1139, either individually or bundled, for general air traffic;”.

(**7**) EUR 2017/373, amended by S.I. 2019/459 and 2020/694.

Amendment of Article 3 Commission Implementing Regulation (EU) 2017/373

24. In Article 3 (provision of ATMS/AS and ATM network functions), after paragraph (4) insert—

"(5) Organisations other than an ATM/ANS provider referred to in point (2) of Article 2 of this Regulation or aerodrome operators regulated by Regulation (EU) No 139/2014, when originating, processing or transmitting aeronautical data or aeronautical information intended for use in IFR traffic, shall meet the requirements laid down in:

(a) point ATM/ANS.OR.A.085 of Annex 3, except points (c), (d) and (f)(1) and (i);

(b) point ATM/ANS.OR.A.090 of Annex 3.

Such organisations shall ensure that aeronautical data and aeronautical information are originated, processed and transmitted by adequately trained, competent and authorised personnel.".

Amendment of Annex 1 to Commission Implementing Regulation (EU) 2017/373

25.—(1) Annex 1 (definitions of terms used in Annexes 2 to 8) is amended as follows.

(2) After point (1) insert—

"(1A) 'air-ground communication' means two-way communication between aircraft and stations or locations on the surface of the Earth;".

(3) After point (26) insert—

"(26A) 'aeronautical information circular (AIC)' means a notice containing information that does not qualify for the origination of a NOTAM or for inclusion in the aeronautical information publication, but which relates to flight safety, air navigation, technical, administrative or legislative matters;

(26B) 'aeronautical information management (AIM)' means the dynamic, integrated management of aeronautical information through the provision and exchange of quality-assured digital aeronautical data in collaboration with all parties;

(26C) 'aeronautical information product' means aeronautical data and aeronautical information provided either as digital data sets or as a standardised presentation in paper or electronic media. Aeronautical information products include:

— aeronautical information publication, including amendment and supplements;

— AIC;

— aeronautical charts;

— NOTAM;

— digital data sets;

(26D) 'aeronautical information publication (AIP)' means a publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation;

(26E) 'AIP amendment' means a permanent change to the information contained in the AIP;

(26F) 'AIP supplement' means a temporary change to the information contained in the AIP, which is provided by means of special pages;

(26G) 'aeronautical information regulation and control' (AIRAC) means a system aimed at advance notification, based on common effective dates, of circumstances that necessitate significant changes in operating practices;".

(4) After point (29) insert—

"(29A) 'assemble' means a process of merging data from multiple sources into a database and establishing a baseline for subsequent processing;".

(5) After point (30) insert—

"(30A) 'ATS route' means a specified route designated for channelling the flow of traffic as necessary for the provision of ATS;".

(6) After point (35) insert—

"(35A) 'broadcast' means a transmission of information relating to air navigation that is not addressed to a specific station or stations;".

(7) After point (38) insert—

"(38A) 'completeness' means, in relation to data, the degree of confidence that all data needed to support the intended use is provided;

(38B) 'confidence level' means the probability that the true value of a parameter is within a certain interval around the estimate of its value;".

(8) After point (39) insert—

"(39A) 'control zone' means a controlled airspace extending upwards from the surface of the Earth to a specified upper limit;

(39B) 'controlled airspace' means an airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification;".

(9) After point (40) insert—

"(40A) 'cruising level' means a level maintained during a significant portion of a flight;

(40B) 'cyclic redundancy check (CRC)' means a mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data;

(40C) 'danger area' means an airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times;

(40D) 'data accuracy' means a degree of conformance between the estimated or measured value and the true value;

(40E) 'data collection surface' means a defined surface intended for the purpose of collecting obstacle or terrain data;

(40F) 'data integrity' means a degree of assurance that aeronautical data and its value has not been lost or altered since the data origination or authorised amendment;

(40G) 'data item' means a single attribute of a complete data set, which is allocated a value that defines its current status;

(40H) 'data origination' means the creation of a new data item with its associated value, the modification of the value of an existing data item or the deletion of an existing data item;

(40I) 'data product specification' means a detailed description of a data set or a collection of data sets together with additional information that will enable it to be created, supplied to and used by another party;

(40J) 'data set' means an identifiable collection of data;".

(10) After point (41) insert—

"(41A) 'datum' means any quantity or set of quantities that may serve as a reference or basis for the calculation of other quantities;".

(11) After point (48) insert—

"(48A) 'feature' means an abstraction of real world phenomena;

(48B) 'feature attribute' means a characteristic of a feature that has a name, a date type and a value domain associated with it;

(48C) 'feature type' means a class of real world phenomena with common properties, which forms the basic level of classification in a feature catalogue;

(48D) 'final approach' means that part of an instrument approach procedure which:

(a) commences at the specified fix or point, or, where such a fix or point is not specified, at either of the following places:

(i) at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified;

(ii) at the point of the interception of the last track specified in the approach procedure,

(b) ends at a point in the vicinity of an aerodrome from which a landing can be made or a missed approach procedure is initiated;".

(12) After point (55) insert—

"(55A) 'format' means in relation to data, a structure of data items, records and files arranged to meet standards, specifications or data quality requirements;".

(13) After point (57) insert—

"(57A) 'geoid' means the equipotential surface in the gravity field of the Earth which coincides with the undisturbed mean sea level (MSL) extended continuously through the continents;

(57B) 'geoid undulation' means the distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid;".

(14) After point (62) insert—

"(62A) 'heliport' means an aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters;

(62B) 'identification' means the situation which exists when the position indication of a particular aircraft is seen on a situation display and positively identified;

(62C) 'integrity classification' means, in relation to aeronautical data, a classification based upon the potential risk resulting from the use of corrupted data, defining routine, essential and critical data;

(62D) 'international NOTAM office (NOF)' means an office designated by a State for the exchange of NOTAM internationally;".

(15) After point (65) insert—

"(65A) 'metadata' means data about data;".

(16) After point (72) insert—

"(72A) 'movement area' means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron;

(72B) 'navigation aid' means a facility or system external to the aircraft, which generates electro-magnetic signals to be used by aircraft navigation systems for position determination or flight path guidance;".

(17) After point (76) insert—

"(76A) 'position' means, in a geographical context, a set of coordinates (latitude and longitude) referenced to the mathematical reference ellipsoid, which define the position of a point on the surface of the Earth;".

(18) After point (80) insert—

"(80A) 'prohibited area' means an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited.".

(19) After point (82) insert—

"(82A) 'resolution' means, in relation to data, a number of units or digits to which a measured or calculated value is expressed and used;".

(20) After point (83) (definition of 'rest period') insert—

"(83A) 'restricted area' means an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions;".

(21) After point (85) insert—

"(85A) 'route stage' means a route or portion of a route flown without an intermediate landing;".

(22) After point (94) insert—

"(94A) 'SNOWTAM' means a special series NOTAM given in a standard format, which provides a surface condition report notifying the presence or cessation of hazardous conditions due to snow, ice, slush, frost or water associated with snow, slush, ice, or frost on the movement area;".

(23) After point (99) insert—

"(99A) 'taxiing' means movement of an aircraft on the surface of an aerodrome or an operating site under its own power, excluding take-off and landing;".

(24) After point (102) insert—

"(102A) 'timeliness' means, in relation to data, the degree of confidence that the data is applicable to the period of its intended use;".

(25) After point (103) (definition of 'touchdown zone') insert—

"(103A) 'traceability' means, in relation to data, the degree to which a system or data product can provide a record of the changes made to that product and thereby enable an audit trail to be followed from the end-user to the party originating data;

(103B) 'track' means the projection on the Earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid);

(103C) 'transition altitude' means the altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes;

(103D) 'transition level' means the lowest flight level available for use above the transition altitude;".

(26) After point (105) insert—

"(105A) 'validation' means, in relation to data, the process of ensuring that data meets the requirements for the specified application or intended use;

(105B) 'verification' means, in relation to data, the evaluation of the output of an aeronautical data process to ensure correctness and consistency with respect to the inputs and applicable data standards, rules and conventions used in that process;".

(27) After point (106) insert—

"(106A) 'visual approach' means an approach by an IFR flight when either part or all of an instrument approach procedure is not completed and the approach is executed in visual reference to terrain;

(106B) 'visual flight rules flight' or 'VFR flight' means a flight conducted in accordance with the visual flight rules;".

(28) After point (107) (definition of 'volcanic ash advisory centre (VAAC)') insert—

"(107A) 'waypoint' means a specified geographical location used to define an area navigation route or the flight path of an aircraft employing area navigation. Waypoints are identified as either:

(a) fly-by waypoint – a waypoint which requires turn anticipation to allow tangential interception of the next segment of a route or procedure, or

(b) fly-over waypoint – a waypoint at which a turn is initiated in order to join the next segment of a route or procedure;".

Amendment of Annex 2 to Commission Implementing Regulation (EU) 2017/373

26. In Annex 2, Appendix 1 (certificate of service provider), for the table 'Aeronautical information services (AIS)' substitute—

'Services/Functions	Type of Service/Function	Scope of Service/Function	Limitations (*)
Aeronautical Information Services (AIS)	Aeronautical information products (including distribution services)	Aeronautical information publication (AIP)	
		Aeronautical information circular (AIC)	
		NOTAM	
		AIP data set	
		Obstacle data sets	
		Aerodrome mapping data sets	
		Instrument flight procedure data sets	
	Preflight information services	n/a	
Conditions (**)			

(*) As prescribed by the competent authority.
(**) Where necessary.';

Amendment of Annex 3 to Commission Implementing Regulation (EU) 2017/373

27. In Annex 3, Subpart A (general requirement ATM/ANS.OR.A), after point ATM/ANS.OR.A.075 (Open and transparent provision of services) insert—

"**ATM/ANS.OR.A.080 Provision of aeronautical data**

(a) A service provider shall ensure that aeronautical data related to its services is provided in due time to the AIS provider.

(b) When aeronautical data related to its services is published, the service provider shall:

(1) monitor the data;

(2) notify the AIS provider of any changes necessary to ensure that the data is correct and complete;

(3) notify the AIS provider when the data is incorrect or inappropriate.

ATM/ANS.OR.A.085 Aeronautical data quality management

When originating, processing or transmitting data to the AIS provider, the service provider shall:

(a) ensure that aeronautical data conforms with the 'Aeronautical Data Catalogue' referred to in ICAO PANS-AIM (Doc 10066);

(b) ensure that the following data quality requirements are met:

(1) the accuracy of aeronautical data is as specified in the aeronautical data catalogue;

(2) the integrity of aeronautical data is maintained;

(3) based on the integrity classification specified in the aeronautical data catalogue, procedures are put in place so that:

(i) for routine data as defined in ICAO PANS-AIM, corruption is avoided throughout the processing of the data;

(ii) for essential data as defined in ICAO PANS-AIM, corruption does not occur at any stage of the entire process and additional processes are included, as needed, to address potential risks in the overall system architecture to further assure data integrity at this level;

(iii) for critical data as defined in ICAO PANS-AIM, corruption does not occur at any stage of the entire process and additional integrity assurance processes are included to fully mitigate the effects of faults identified as potential data integrity risks by thorough analysis of the overall system architecture;

(4) the resolution of aeronautical data is commensurate with the actual data accuracy;

(5) the traceability of aeronautical data is ensured;

(6) the timeliness of the aeronautical data is ensured, including any limits on the effective period of the data;

(7) the completeness of the aeronautical data is ensured;

(8) the delivered data meet the specified format requirements;

(c) with regard to data origination, establish specific formal arrangements with the party originating data that contain instructions for data creation, modification or deletion, which include as a minimum:

(1) an unambiguous description of the aeronautical data to be created, modified or deleted;

(2) the entity to which the aeronautical data is to be provided;

(3) the date and time by which the aeronautical data is to be provided;

(4) the format of the data origination report to be used;

(5) the format of the aeronautical data to be transmitted;

(6) the requirement to identify any limitation on the use of the data;

(d) ensure that data validation and verification techniques are employed to ensure that the aeronautical data meets the associated data quality requirements and in addition:

(1) the verification shall ensure that aeronautical data is received without corruption and that corruption does not occur at any stage of the entire aeronautical data process;

(2) aeronautical data and aeronautical information entered manually shall be subject to independent verification to detect any errors that may have been introduced;

(3) when using aeronautical data to derive or calculate new aeronautical data, the initial data shall be verified and validated, except when provided by an authoritative source;

(e) transmit aeronautical data by electronic means;

(f) establish formal arrangements with:

(1) all parties transmitting data to them;

(2) other service providers or aerodrome operators when exchanging aeronautical data and aeronautical information;

(g) ensure that the information listed in point AIS.OR.505(a) is provided in due time to the AIS provider;

(h) collect and transmit metadata which include as a minimum:

(1) the identification of the organisations or entities performing any action of originating, transmitting or manipulating the aeronautical data;

(2) the action performed;

(3) the date and time the action was performed;

(i) ensure that tools and software used to support or automate aeronautical data and aeronautical information processes perform their functions without adversely impacting the quality of aeronautical data and aeronautical information;

(j) ensure that digital data error detection techniques are used during the transmission or storage of aeronautical data, or both, in order to support the applicable data integrity levels;

(k) ensure that the transfer of aeronautical data is subject to a suitable authentication process such that recipients are able to confirm that the data has been transmitted by an authorised source;

(l) ensure that errors identified during data origination and after data delivery are addressed, corrected or resolved and that priority is given to managing errors in critical and essential aeronautical data.

ATM/ANS.OR.A.090 Common reference systems for air navigation

For the purpose of air navigation, service providers shall use:

(a) the World Geodetic System – 1984 (WGS-84) as the horizontal reference system;

(b) the mean sea level (MSL) datum as the vertical reference system;

(c) the Gregorian calendar and coordinated universal time (UTC) as the temporal reference systems.".

Amendment of Annex 4 to Commission Implementing Regulation (EU) 2017/373

28. In Annex 4, Subpart A (additional organisation requirements for providers of air traffic services) (ATS.OR), after point ATS.OR.105 (open and transparent provision of service) insert—

"**ATS.OR.110 Coordination between aerodrome operators and air traffic services providers**

An air traffic services provider shall establish arrangements with the operator of the aerodrome at which it provides air traffic services to ensure adequate coordination of activities and services provided as well as exchange of relevant data and information.

ATS.OR.125 Coordination between aeronautical information services and air traffic services providers

(a) An air traffic services provider shall provide to the relevant aeronautical information services provider the aeronautical information to be published as necessary to permit the utilisation of such air traffic services.

(b) To ensure that the aeronautical information services providers obtain information to enable them to provide up-to-date pre-flight information and to meet the need for in-flight information, an air traffic services provider shall make arrangements to report to the aeronautical information services provider, with a minimum of delay:

(1) information on aerodrome conditions;

(2) the operational status of associated facilities, services and navigation aids within their area of responsibility;

(3) the occurrence of volcanic activity observed by air traffic services personnel or reported by aircraft;

(4) any other information considered to be of operational significance.

(c) Before introducing changes to systems for air navigation under its responsibility, an air traffic services provider shall:

(1) ensure close coordination with the aeronautical information services provider;

(2) take due account of the time needed by the aeronautical information services provider for the preparation, production and issuance of relevant material for promulgation;

(3) provide the information in a timely manner to the aeronautical information services provider.

(d) An air traffic services provider shall observe the predetermined, internationally agreed aeronautical information regulation and control (AIRAC) effective dates when submitting to aeronautical information services providers the information or data, or both, subject to the AIRAC cycle.”.

Amendment of Annex 6 to Commission Implementing Regulation (EU) 2017/373

29. For Annex 6 (specific requirements for the providers of aeronautical information services) (Part-AIS) substitute—

“ANNEX VI

SPECIFIC REQUIREMENTS FOR THE PROVIDERS OF AERONAUTICAL INFORMATION SERVICES (Part-AIS)

SUBPART A – ADDITIONAL ORGANISATION REQUIREMENTS FOR PROVIDERS OF AERONAUTICAL INFORMATION SERVICES (AIS.OR)

SECTION 1 – GENERAL REQUIREMENTS

AIS.OR.100 Aeronautical information management

An aeronautical information services (AIS) provider shall establish information management resources and processes that are adequate to ensure the timely collection, processing, storing, integration, exchange and delivery of quality-assured aeronautical data and aeronautical information within the ATM system.

AIS.OR.105 Responsibilities of aeronautical information services (AIS) providers

An AIS provider shall ensure the provision of aeronautical data and aeronautical information necessary for the safety, regularity and efficiency of air navigation.

An AIS provider shall receive, collate or assemble, edit, format, publish, store and distribute aeronautical data and aeronautical information concerning the entire territory and airspace of the United Kingdom and Crown Dependencies as well as those areas over the high seas for which the United Kingdom is responsible for the provision of air traffic services.

An AIS provider shall ensure that aeronautical data and aeronautical information are available for:

(1) personnel involved in flight operations, including flight crews, flight planning, and flight simulators;

(2) ATS providers responsible for flight information services, and

(3) the services responsible for pre-flight information.

An AIS provider shall provide 24-hour service for NOTAM origination and issuance in its area of responsibility and for pre-flight information needed in relation to route stages originating at any aerodrome or heliport in its area of responsibility.

An AIS provider shall make available to other AIS providers aeronautical data and aeronautical information required by them.

An AIS provider shall ensure that procedures are in place to assess and mitigate safety risks to aviation arising from data and information errors.

An AIS provider shall clearly indicate that aeronautical data and aeronautical information provided for and on behalf of the United Kingdom are provided under the authority of the United Kingdom, irrespective of the format in which it is provided.

SECTION 2 – DATA QUALITY MANAGEMENT

AIS.OR.200 General

An AIS provider shall ensure that:

(a) aeronautical data and aeronautical information conforms with the 'Aeronautical Data Catalogue' referred to in ICAO PANS-AIM (Doc 10066);

(b) data quality is maintained; and

(c) automation is applied to enable the processing and exchange of digital aeronautical data.

AIS.OR.205 Formal arrangements

An AIS provider shall ensure that formal arrangements are established with:

(a) all parties transmitting data to them; and

(b) other AIS providers, when exchanging aeronautical data and aeronautical information with them.

AIS.OR.210 Exchange of aeronautical data and aeronautical information

An AIS provider shall ensure that:

(a) the format of aeronautical data is based on an aeronautical information exchange model designed to be globally interoperable; and

(b) aeronautical data is exchanged through electronic means.

AIS.OR.215 Tools and software

An AIS provider shall ensure that tools and software used to support or automate aeronautical data and aeronautical information processes perform their functions without adversely impacting on the quality of aeronautical data and aeronautical information.

AIS.OR.220 Validation and verification

An AIS provider shall ensure that verification and validation techniques are employed so that the aeronautical data meets the associated data quality requirements (DQRs) specified in point AIS.TR.200.

AIS.OR.225 Metadata

An AIS provider shall collect and preserve metadata.

AIS.OR.230 Data error detection and authentication

An AIS provider shall ensure that:

(a) digital data error detection techniques are used during the transmission or storage of aeronautical data in order to support the applicable data integrity levels specified in point AIS.TR.200(c); and

(b) the transfer of aeronautical data is subject to a suitable authentication process such that recipients are able to confirm that the data or information has been transmitted by an authorised source.

AIS.OR.235 Error reporting, error measurement, and corrective actions

An AIS provider shall ensure that error reporting, error measurement and corrective action mechanisms are established and maintained.

AIS.OR.240 Data limitations

An AIS provider shall identify, in the aeronautical information products, except for NOTAM, the aeronautical data and aeronautical information that do not meet the DQRs.

AIS.OR.250 Consistency requirement

Where aeronautical data or aeronautical information is duplicated in the AIP of more than one State, the AIS providers responsible for those AIPs shall establish mechanisms to ensure consistency between the duplicated information.

SECTION 3 – AERONAUTICAL INFORMATION PRODUCTS

AIS.OR.300 General – Aeronautical information products

When providing aeronautical data and aeronautical information in multiple formats, an AIS provider shall ensure that processes are implemented for data and information consistency between those formats.

Chapter 1 – Aeronautical information in a standardised presentation

AIS.OR.305 Aeronautical information publication (AIP)

An AIS provider shall issue an AIP.

AIS.OR.310 AIP amendments

An AIS provider shall:

(a) issue permanent changes to the AIP as AIP amendments; and

(b) ensure that the AIP is amended or reissued at such regular intervals as necessary to ensure that the information is complete and up to date.

AIS.OR.315 AIP supplements

An AIS provider shall:

(a) issue, as AIP supplements, temporary changes of long duration (three months or longer) and information of short duration which contains extensive text or graphics;

(b) regularly provide a checklist of the valid AIP supplements; and

(c) publish a new AIP supplement as a replacement when an error occurs in an AIP supplement or when the period of validity of an AIP supplement is changed.

AIS.OR.320 Aeronautical information circular (AIC)

An AIS provider shall issue as an AIC any of the following:

(a) a long-term forecast of any major change in legislation, regulations, procedures or facilities;

(b) information of a purely explanatory or advisory nature which affects flight safety;

(c) information or notification of an explanatory or advisory nature, concerning technical, legislative or purely administrative matters.

An AIS provider shall review at least once a year the validity of an AIC in force.

AIS.OR.325 Aeronautical charts

An AIS provider shall ensure that the following aeronautical charts, where made available:

(a) form part of the AIP or are provided separately to recipients of the AIP:

(1) aerodrome obstacle chart – Type A;

(2) aerodrome/heliport chart;

(3) aerodrome ground movement chart;

(4) aircraft parking/docking chart;

(5) precision approach terrain chart;

(6) ATC surveillance minimum altitude chart;

(7) area chart;

(8) standard arrival chart – instrument (STAR);

(9) standard departure chart – instrument (SID);

(10) instrument approach chart;

(11) visual approach chart; and

(12) en route chart; and

(b) are provided as part of the aeronautical information products:

(1) aerodrome obstacle chart – Type B;

(2) world aeronautical chart 1:1 000 000;

(3) world aeronautical chart 1:500 000;

(4) aeronautical-navigation chart – small scale; and

(5) plotting chart.

AIS.OR.330 NOTAM

An AIS provider shall:

(a) promptly issue a NOTAM whenever the information to be distributed is of a temporary nature and of short duration or when operationally significant permanent changes, or temporary changes of long duration (three months or longer), are made at short notice, except for extensive text or graphics; and

(b) issue, as a NOTAM, information on the establishment, condition, or change of any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel involved with flight operations.

Compliance with point AIS.OR.200 shall not inhibit the urgent distribution of aeronautical information necessary to ensure the safety of flight.

Chapter 2 – Digital data sets

AIS.OR.335 General – Digital data sets

If available, an AIS provider shall ensure that digital data is in the form of the following data sets:

(1) AIP data set;

(2) terrain data set;

(3) obstacle data sets;

(4) aerodrome mapping data sets; and

(5) instrument flight procedure data sets.

An AIS provider shall ensure that a checklist of valid data sets shall be regularly provided.

An AIS provider shall ensure that a checklist of valid data sets shall be regularly provided.

AIS.OR.340 Metadata requirements

Each data set shall include a minimum set of metadata to be provided to the next user.

AIS.OR.345 AIP data set

An AIS provider shall ensure that the AIP data set, if available, contains the digital representation of aeronautical information of lasting character, including permanent information and long-duration temporary changes.

AIS.OR.350 Terrain and obstacle data – General requirements

An AIS provider shall ensure that terrain and obstacle data, if available, are provided in accordance with point AIS.TR.350.

AIS.OR.355 Terrain data sets

An AIS provider shall ensure that terrain data, if available, is provided:

(a) for Area 1, as laid down in point AIS.TR.350; and

(b) for aerodromes to cover:

(1) Area 2a or parts of Area 2a, as laid down in point AIS.TR.350(b)(1);

(2) Areas 2b, 2c and 2d or parts of those Areas, as laid down in points AIS.TR.350(b)(2), (3) and (4), for terrain:

(i) within 10 km from the aerodrome reference point (ARP); and

(ii) beyond 10 km from the ARP if the terrain penetrates the horizontal plane 120 m above the lowest runway elevation;

(3) the take-off flight path area or parts of that area;

(4) an area, or parts of an area, bounded by the lateral extent of the aerodrome obstacle limitation surfaces;

(5) Area 3 or parts of Area 3, as laid down in point AIS.TR.350(c), for terrain that extends 0.5 m above the horizontal plane, passing through the nearest point on the aerodrome movement area; and

(6) Area 4 or parts of Area 4, as laid down in point AIS.TR.350(d), for all runways where precision approach Category II or III operations have been established and where detailed terrain information is required by operators to enable them to assess the effect of terrain on decision height determination by use of radio altimeters.

AIS.OR.360 Obstacle data sets

An AIS provider shall ensure that obstacle data, if available, is provided:

(a) for obstacles in Area 1 whose height is 100 m or higher above ground;

(b) for aerodromes, for all obstacles within Area 2 that are assessed as being a hazard to air navigation; and

(c) for aerodromes, to cover:

(1) Area 2a or parts of Area 2a, for those obstacles that penetrate the relevant obstacle data collection surface;

(2) objects in the take-off flight path area or parts of that area, which project above a plane surface having a 1.2 % slope and having a common origin with the take-off flight path area;

(3) penetrations of the aerodrome obstacle limitation surfaces or parts of those surfaces;

(4) Areas 2b, 2c and 2d, for obstacles that penetrate the relevant obstacle data collection surfaces;

(5) Area 3 or parts of Area 3, for obstacles that penetrate the relevant obstacle data collection surface; and

(6) Area 4 or parts of Area 4, for all runways where precision approach Category II or III operations have been established.

AIS.OR.365 Aerodrome mapping data sets

An AIS provider shall ensure that aerodrome mapping data sets, if available, are provided in accordance with point AIS.TR.365.

AIS.OR.370 Instrument flight procedure data sets

An AIS provider shall ensure that instrument flight procedure data sets, if available, are provided in accordance with point AIS.TR.370.

SECTION 4 – DISTRIBUTION AND PRE-FLIGHT INFORMATION SERVICES

AIS.OR.400 Distribution services

An AIS provider shall:

(a) distribute available aeronautical information products to those users who request them;

(b) make available the AIP, AIP amendments, AIP supplements, NOTAM and AIC by the most expeditious means;

(c) ensure that NOTAM are distributed through the aeronautical fixed service (AFS), whenever practicable;

(d) ensure that international exchange of NOTAM takes place only as mutually agreed between the international NOTAM offices and multinational NOTAM processing units concerned; and

(e) arrange, as necessary, the issuance and receipt of NOTAM distributed by telecommunication to satisfy operational requirements.

AIS.OR.405 Pre-flight information services

An AIS provider shall ensure that:

(a) for any aerodrome or heliport, aeronautical information relative to the route stages originating at the aerodrome or heliport is made available to flight operations personnel, including flight crew and services responsible for pre-flight information; and

(b) aeronautical information provided for pre-flight planning purposes includes information of operational significance from the elements of the aeronautical information products.

SECTION 5 – AERONAUTICAL INFORMATION PRODUCTS UPDATES

AIS.OR.500 General – Aeronautical information products updates

An AIS provider shall ensure that aeronautical data and aeronautical information are amended or reissued to keep them up to date.

AIS.OR.505 Aeronautical information regulation and control (AIRAC)

An AIS provider shall ensure that information concerning the circumstances listed in point AIS.TR.505(a) is distributed under the AIRAC system.

An AIS provider shall ensure that:

(1) the information notified under the AIRAC system is not changed further for at least another 28 days after the AIRAC effective date unless the circumstance notified is of a temporary nature and would not persist for the full period;

(2) the information provided under the AIRAC system is distributed or made available so as to reach recipients at least 28 days in advance of the AIRAC effective date; and

(3) implementation dates other than the AIRAC effective dates are not used for pre-planned operationally significant changes requiring cartographic work or for updating of navigation databases.

AIS.OR.510 NOTAM

An AIS provider shall:

(a) ensure that NOTAM are provided in accordance with point AIS.TR.510; and

(b) provide a 'trigger NOTAM', as laid down in point AIS.TR.510(f), when an AIP amendment or an AIP supplement is published in accordance with AIRAC procedures.

AIS.OR.515 Data set updates

An AIS provider shall:

(a) amend or reissue data sets at such regular intervals as may be necessary to keep them up to date; and

(b) issue permanent changes and temporary changes of long duration (three months or longer) made available as digital data in the form of a complete data set or a subset that includes only the differences from the previously issued complete data set.

SECTION 6 – PERSONNEL REQUIREMENTS

AIS.OR.600 General requirements

In addition to point ATM/ANS.OR.B.005(a)(6) of Annex 3, the AIS provider shall ensure that personnel responsible for the provision of aeronautical data and aeronautical information are:

(a) made aware of and apply the following:

(1) the requirements on aeronautical information products and services, as specified in Sections 2 to 5;

(2) the update cycles applicable to the issuing of AIP amendments and AIP supplements for the areas for which they provide aeronautical data or aeronautical information;

(b) adequately trained, competent and authorised for the job they are required to do.

SUBPART B – ADDITIONAL TECHNICAL REQUIREMENTS FOR PROVIDERS OF AERONAUTICAL INFORMATION SERVICES (AIS.TR)

SECTION 2 – DATA QUALITY MANAGEMENT

AIS.TR.200 General

(a) The accuracy of aeronautical data shall be in conformity with the 'Aeronautical Data Catalogue' referred to in ICAO PANS-AIM (Doc 10066).

(b) The resolution of aeronautical data shall be commensurate with the actual data accuracy.

(c) The integrity of aeronautical data shall be maintained. Based on the integrity classification specified in the aeronautical data catalogue, procedures shall be put in place so that:

(1) for routine data as defined in ICAO PANS-AIM, corruption is avoided throughout the processing of the data;

(2) for essential data as defined in ICAO PANS-AIM, corruption does not occur at any stage of the entire process and additional processes are included, as needed, to address potential risks in the overall system architecture to further assure data integrity at this level;

(3) for critical data as defined in ICAO PANS-AIM, corruption does not occur at any stage of the entire process and additional integrity assurance processes are included to fully mitigate the effects of faults identified by thorough analysis of the overall system architecture as potential data integrity risks.

(d) The traceability of aeronautical data shall be ensured.

(e) The timeliness of the aeronautical data shall be ensured, including any limits on the effective period of the data.

(f) The completeness of the aeronautical data shall be ensured.

(g) The format of delivered data shall be adequate to ensure that the data is interpreted in a manner that is consistent with its intended use.

AIS.TR.210 Exchange of aeronautical data and aeronautical information

Except for terrain data, the exchange format of aeronautical data shall:

(a) enable the exchange of data for both individual features and feature collections;

(b) enable the exchange of baseline information as a result of permanent changes;

(c) be structured in accordance with the subjects and properties of the aeronautical data catalogue, and be documented through a mapping between the exchange format and the aeronautical data catalogue.

AIS.TR.220 Verification

(a) The verification shall ensure that:

(1) the aeronautical data was received without corruption;

(2) the aeronautical data process does not introduce corruption.

(b) Aeronautical data and aeronautical information entered manually shall be subject to independent verification to identify any errors that may have been introduced.

AIS.TR.225 Metadata

The metadata to be collected shall include, as a minimum:

(a) the identification of the organisations or entities performing any action of originating, transmitting or manipulating the aeronautical data;

(b) the action performed;

(c) the date and time the action was performed.

AIS.TR.235 Error reporting, error measurement and corrective actions

The error reporting, error measurement and corrective mechanisms shall ensure that:

(a) problems identified during origination, production, storage, handling and processing, or those reported by users after publication, are recorded;

(b) all problems reported in relation to the aeronautical data and aeronautical information are analysed by the AIS provider and the necessary corrective actions are performed;

(c) priority is given to resolution of all errors, inconsistencies and anomalies detected in critical and essential aeronautical data;

(d) affected users are warned of errors by the most effective means, taking into account the integrity level of the aeronautical data and aeronautical information;

(e) error feedback is facilitated and encouraged.

AIS.TR.240 Data limitations

The identification of data not meeting the DQRs shall be made with an annotation or by explicitly providing the quality value.

SECTION 3 – AERONAUTICAL INFORMATION PRODUCTS

AIS.TR.300 General – Aeronautical information products

(a) Aeronautical information products intended for distribution shall be in English.

(b) Place names shall be spelt in conformity with local usage and transliterated, when necessary, into the International Organization for Standardization (ISO) basic Latin alphabet.

(c) nternational Civil Aviation Organization (ICAO) abbreviations shall be used in the aeronautical information products whenever they are appropriate.

Chapter 1 – Aeronautical information in a standardised presentation

AIS.TR.305 Aeronautical information publication (AIP)

(a) The AIP, AIP amendments and AIP supplements shall be provided as an 'electronic AIP' (eAIP). The eAIP shall allow for displaying on computer screen and printing on paper. In addition, the AIP, AIP amendments and AIP supplements may also be provided on paper.

(b) The AIP shall include:

(1) a statement of the competent authority responsible for the air navigation facilities, services or procedures covered by the AIP;

(2) the general conditions under which the services or facilities are available for use;

(3) a list of significant differences between the regulations and practices of the United Kingdom and, where available, the Crown Dependencies, and the related ICAO Standards and Recommended Practices (SARPs) and Procedures;

(4) the choice made by a State in each significant case where an alternative course of action is provided for in the ICAO SARPs and procedures.

(c) The AIP shall contain information related to, and arranged under, the subject headings listed in the Contents of the Aeronautical Information Publication (AIP) in PANS-AIM (Doc 10066).

(d) The issuer and AIS provider shall be clearly indicated.

(e) Each AIP shall be self-contained and include a table of contents.

(g) An AIP shall be organised in three parts (GEN, ENR and AD), sections and subsections, except when the AIP, or a volume of the AIP, is designed to facilitate operational use in flight, in which case the precise format and arrangement are not prescribed provided that an adequate table of contents is included.

(h) Each AIP shall be dated.

(i) The date, consisting of the day, month (by name), and year, shall be the publication date or the AIRAC effective date.

(j) When describing periods of activity, availability or operation, the applicable days and times shall be specified.

(k) Each AIP volume issued in printing format and each page of an AIP issued in printing format shall be annotated to clearly indicate:

(1) the identity of the AIP;

(2) the territory covered and its subdivisions, when necessary;

(3) the identification of the issuing State and producing organisation (authority); and

(4) page numbers/chart titles.

(l) Any amendment to the volume of the AIP issued in printing format shall be clearly identifiable by means of replacement pages.

AIS.TR.310 AIP amendments

(a) Any operationally significant changes to the AIP, in accordance with point AIS.OR.505, shall be issued under AIRAC and clearly identified as such.

(b) Each AIP amendment shall be allocated a serial number, which shall be consecutive.

(c) When an AIP amendment is issued, it shall include references to the serial number of the NOTAM which have been incorporated into the amendment.

(d) The most current update cycles applicable to AIP amendments shall be made publicly available.

(e) Recourse to hand amendments/annotations shall be kept to a minimum; the normal method of amendment shall be by reissuing or by replacement of pages.

(f) Each AIP amendment shall:

(1) include a checklist with the current dates and numbers of each loose-leaf page in the AIP; and

(2) provide a recapitulation of any outstanding hand amendments.

(g) New or revised information shall be identified by an annotation against it in the margin.

(h) Each AIP amendment page, including the cover sheet, shall contain a publication date and, when applicable, an effective date.

(i) The regular intervals between the AIP amendments shall be specified in Part 1 – General (GEN) of the AIP.

AIS.TR.315 AIP supplements

(a) AIP supplements issued in printing format shall be provided by means of distinctive pages.

(b) The most current update cycles applicable to AIP supplements shall be made publicly available.

(c) Each AIP supplement shall be allocated a serial number which shall be consecutive and based on the calendar year.

(d) Whenever an AIP supplement is issued as a replacement of a NOTAM, a reference to the series and number of the NOTAM shall be included.

(e) A checklist of valid AIP supplements shall be issued at intervals of not more than one month, as part of the checklist of NOTAM and also with distribution as for the AIP supplements.

(f) Each AIP supplement page shall have a publication date. Each AIRAC AIP supplement page shall have both a publication and an effective date.

AIS.TR.320 Aeronautical information circular (AIC)

(a) The AIC shall be provided as an electronic document.

(b) The AIC shall be provided whenever it is desirable to promulgate:

(1) forecasts of important changes in the air navigation procedures, services and facilities;

(2) forecasts of implementation of new navigational systems;

(3) significant information derived from aircraft accident/incident investigation which has a bearing on flight safety;

(4) information on regulations related to the safeguarding of civil aviation against acts of unlawful interference that jeopardise the security of civil aviation;

(5) advice on medical matters of special interest to pilots;

(6) warnings to pilots concerning the avoidance of physical hazards;

(7) information on the effect of certain weather phenomena on aircraft operations;

(8) information on new hazards affecting aircraft handling techniques;

(9) information on regulations related to the carriage of restricted articles by air;

(10) references to the requirements of national and EU legislation and to the publication of changes therein;

(11) information on aircrew licensing arrangements;

(12) information on training of aviation personnel;

(13) information on the implementation of, or exemption from, requirements in national and EU legislation;

(14) advice on the use and maintenance of specific types of equipment;

(15) the actual or planned availability of new or revised editions of aeronautical charts;

(16) information on the carriage of communication equipment;

(17) explanatory information related to noise abatement;

(18) selected airworthiness directives;

(19) information on changes in NOTAM series or distribution, new editions of AIP or major changes in their content, coverage or format;

(20) advance information on the snow plan; and

(21) other information of a similar nature.

(c) The AIC shall not be used for information that qualifies for inclusion in AIP or NOTAM.

(d) The snow plan issued in accordance with point AD 1.2.2 of the AIP shall be supplemented by seasonal information to be issued as an AIC well in advance of the beginning of each winter – not less than one month before the normal onset of winter conditions.

(e) When the AIC is selected for international distribution it shall have the same distribution as the AIP.

(f) Each AIC shall be allocated a serial number which shall be consecutive and based on the calendar year.

(g) In the event that an AIC is provided in more than one series, each series shall be separately identified by a letter.

(h) A checklist of AIC currently in force shall be issued at least once a year, with distribution as for the AIC.

(i) A checklist of AIC provided internationally shall be included in the NOTAM checklist.

AIS.TR.330 NOTAM

(a) A NOTAM shall be issued when it is necessary to provide the following information:

(1) establishment of, closure of, or significant changes in the operation of aerodromes or heliports or runways;

(2) establishment of, withdrawal of, and significant changes in, the operation of aeronautical services;

(3) establishment of, withdrawal of, and significant changes in, the operational capability of radio navigation and air-ground communication services;

(4) unavailability of backup and secondary systems, having a direct operational impact;

(5) establishment of, withdrawal of, or significant changes to, visual aids;

(6) interruption of, or return to operation of, major components of aerodrome lighting systems;

(7) establishment of, withdrawal of, or significant changes to, procedures for air navigation services;

(8) occurrence or correction of major defects or impediments in the manoeuvring area;

(9) changes to, and limitations on, the availability of fuel, oil and oxygen;

(10) major changes to search and rescue (SAR) facilities and services available;

(11) establishment of, withdrawal of, or return to, operation of hazard beacons marking obstacles to air navigation;

(12) changes in regulations applicable in the State(s) concerned that require immediate action from an operational perspective;

(13) operational directives requiring immediate action or changes thereto;

(14) presence of hazards that affect air navigation;

(15) planned laser emissions, laser displays and search lights if pilots' night vision is likely to be impaired;

(16) erecting or removal of, or changes to, obstacles to air navigation in the take-off or climb, missed approach, approach areas as well as on the runway strip;

(17) establishment or discontinuance of, including activation or deactivation, as applicable, or changes in, the status of prohibited, restricted or danger areas;

(18) establishment or discontinuance of areas or routes, or portions of areas or routes, where the possibility of interception exists and where the maintenance of guard on the very high frequency (VHF) emergency frequency 121,500 MHz is required;

(19) allocation, cancellation or change of location indicators;

(20) changes in aerodrome/heliport rescue and firefighting (RFF) category;

(21) presence of, removal of, or significant changes in, hazardous conditions due to snow, slush, ice, radioactive material, toxic chemicals, volcanic ash deposition or water on the movement area;

(22) outbreaks of epidemics necessitating changes in notified requirements for inoculations and quarantine measures;

(23) forecasts of solar cosmic radiation, where provided;

(24) an operationally significant change in volcanic activity, the location, date and time of volcanic eruptions, or the horizontal and vertical extent of a volcanic ash cloud, including direction of movement, flight levels and routes or portions of routes that could be affected;

(25) release into the atmosphere of radioactive materials or toxic chemicals following a nuclear or chemical incident, the location, date and time of the incident, the flight levels and routes, or portions of these, that could be affected, as well as the direction of movement;

(26) establishment of operations of humanitarian relief missions, together with procedures or limitations that affect air navigation;

(27) implementation of short-term contingency measures in cases of disruption, or partial disruption, of ATS and related supporting services;

(28) specific loss of integrity of satellite-based navigation systems.

(29) unavailability of a runway due to runway marking works or, if the equipment used for those works can be removed, a time lag required for making the runway available.

(b) A NOTAM shall not be issued to provide any of the following information:

(1) routine maintenance work on aprons and taxiways that does not affect the safe movement of aircraft;

(2) temporary obstructions in the vicinity of aerodromes/heliports that do not affect the safe operation of aircraft;

(3) partial failure of aerodrome/heliport lighting facilities where such failure does not directly affect aircraft operations;

(4) partial temporary failure of air-ground communications when suitable alternative frequencies are available and are operative;

(5) lack of apron marshalling services, road traffic closures, limitations and control;

(6) the unserviceability of location, destination or other instruction signs on the aerodrome movement area;

(7) parachuting when in uncontrolled airspace under visual flight rules (VFR), nor when in controlled airspace at promulgated sites or within danger or prohibited areas;

(8) training activities performed by ground units;

(9) unavailability of backup and secondary systems if these do not have an operational impact;

(10) limitations to airport facilities or general services, with no operational impact;

(11) national regulations not affecting general aviation;

(12) announcements or warnings about possible/potential limitations, with no operational impact;

(13) general reminders on already published information;

(14) availability of equipment for ground units, without information on the operational impact on airspace and facility users;

(15) information about laser emissions with no operational impact and about fireworks below the minimum flying heights;

(16) closure of parts of the movement area in connection with locally coordinated, planned work of duration of less than one hour;

(17) closure, changes, unavailability in the operation of aerodrome(s)/ heliport(s) other than in the aerodrome(s)/heliport(s) operation hours; and

(18) other non-operational information of a similar temporary nature.

(c) Except as provided for in points AIS.TR.330(f) and AIS.TR.330(g), each NOTAM shall contain the information in the order referred to in the NOTAM FORMAT in PANS-AIM (Doc 10066).

(d) NOTAM text shall be composed of the significations/uniform abbreviated phraseology assigned to the ICAO NOTAM Code, complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language.

(e) All NOTAM shall be issued in English language.

(f) Information concerning snow, slush, ice, frost, standing water or water associated with snow, slush, ice or frost on the movement area shall be disseminated by means of SNOWTAM and shall contain the information in the order referred to in the SNOWTAM format in PANS-AIM (Doc 10066).

(g) Information concerning an operationally significant change to volcanic activity, volcanic eruption or volcanic ash cloud shall, when reported by means of an ASHTAM, contain the information in the order referred to in the ASHTAM format in PANS-AIM (Doc 10066).

(h) When errors occur in a NOTAM, a NOTAM with a new number shall be issued to replace the erroneous NOTAM or the erroneous NOTAM shall be cancelled and a new NOTAM shall be issued.

(i) When a NOTAM is issued that cancels or replaces a previous NOTAM:

(1) the series and number/year of the previous NOTAM shall be indicated;

(2) the series, location indicator and subject of both NOTAM shall be the same.

(j) Only one NOTAM shall be cancelled or replaced by a NOTAM.

(k) Each NOTAM shall deal with only one subject and one condition of the subject.

(l) Each NOTAM shall be as brief as possible and compiled so that its meaning is clear without the need to refer to another document.

(m) A NOTAM containing permanent or temporary information of long duration (three months or longer) shall include appropriate references to the AIP or AIP supplement.

(n) Location indicators included in the text of a NOTAM shall be those contained in ICAO Doc 7910. A curtailed form of such indicators shall not be used. Where no ICAO location indicator is assigned to the location, its place name shall be entered in plain language.

(o) A series identified by a letter and a four-digit number followed by a stroke and a two-digit number for the year shall be allocated to each NOTAM. The four-digit number shall be consecutive and based on the calendar year.

(p) All NOTAM shall be divided in series based on subject, traffic or location or a combination of these, depending on end-user needs. NOTAM for aerodromes allowing international air traffic shall be issued in international NOTAM series.

(q) If NOTAM are issued in both English and national language, the NOTAM series shall be organised so that the national language series are equivalent to the English language series in terms of content and numbering.

(r) The content and geographical coverage of each NOTAM series shall be stated in detail in the AIP, in point GEN 3.

(s) A checklist of valid NOTAM shall be regularly provided.

(t) One checklist NOTAM shall be issued for each series.

(u) A checklist NOTAM shall also refer to the latest AIP amendments, AIP supplements, data sets and, at least, to distributed AIC.

(v) A checklist NOTAM shall have the same distribution as the actual message series to which it refers and shall be clearly identified as a checklist.

(w) Series allocation shall be monitored and, if required, appropriate measures shall be taken to assure that no series reaches the maximum possible number of issued NOTAM before the end of a calendar year.

Chapter 2 – Digital data sets

AIS.TR.335 General— Digital data sets

(a) A standard for geographic information shall be used as a reference framework.

(b) A description of each available data set shall be provided in the form of a data product specification.

(c) A checklist of the available data sets, including their effective and publication dates, shall be made available to users to ensure that current data is being used.

(d) The checklist of data sets shall be made available through the same distribution mechanism as the one used for the data sets.

AIS.TR.340 Metadata requirements

The minimum metadata for each data set shall include:

(a) the name of the organisations or entities providing the data set;

(b) the date and time when the data set was provided;

(c) the validity of the data set; and

(d) any limitations on the use of the data set.

AIS.TR.345 AIP data set

(a) The AIP data set shall include data about the following subjects, including the properties indicated, if applicable:

Data subjects	Associated properties as a minimum
Aerodrome/heliport	Location, indicator, name, International Air Transport Association (IATA) designator, served city, certification date, certification expiration date, if applicable, control type, field elevation, reference temperature, magnetic variation, airport reference point.
ATS airspace	Type, name, lateral limits, vertical limits, class of airspace
Final approach and take-off area	Designation, length, width, threshold point
Radio navigation aid	Type identification, name, aerodrome served, hours of operation, magnetic variation, frequency/channel, position, elevation, magnetic bearing, zero bearing direction

Data subjects	Associated properties as a minimum
Route	Identifier prefix, flight rules, designator
Route segment	Navigation specification, start point, end point, track, distance, upper limit, lower limit, minimum en route altitude (MEA), minimum obstacle clearance altitude (MOCA), direction of cruising level, reverse direction of cruising level, required navigation performance
Runway	Designator, nominal length, nominal width, surface type, strength
Runway direction	Designator, true bearing, threshold, take-off run available (TORA), take-off distance available (TODA), accelerate-stop distance available (ASDA), landing distance available (LDA), rejected TODA (for helicopters)
Special activity airspace	Type, name, lateral limits, vertical limits, restriction, activation
Touch down and lift-off area (TLOF)	Designator, centre point, length, width, surface type
Waypoint – en route	Reporting requirement, identification, location, formation

(b) When a property is not defined for a particular occurrence of the subjects listed in (a), the AIP data subset shall include an explicit indication: ‘not applicable’.

AIS.TR.350 Terrain and obstacle data – General requirements

The coverage areas for sets of terrain and obstacle data shall be specified as:

(a) Area 1: the entire territory of a State;

(b) Area 2: within the vicinity of an aerodrome, subdivided as follows:

(1) Area 2a: a rectangular area around a runway which comprises the runway strip plus any clearway that exists;

(2) Area 2b: an area extending from the ends of Area 2a in the direction of departure, with a length of 10 km and a splay of 15 % to each side;

(3) Area 2c: an area extending outside Areas 2a and 2b at a distance of not more than 10 km from the boundary of Area 2a; and

(4) Area 2d: an area outside Areas 2a, 2b and 2c up to a distance of 45 km from the aerodrome reference point, or to an existing terminal manoeuvring area (TMA) boundary, whichever is nearer;

(c) Area 3: the area bordering an aerodrome movement area which extends horizontally from the edge of a runway to 90 m from the runway centre line and 50 m from the edge of all other parts of the aerodrome movement area; and

(d) Area 4: the area extending 900 m prior to the runway threshold and 60 m to each side of the extended runway centre line in the direction of the approach on a precision approach runway, Category II or III.

AIS.TR.355 Terrain data sets

When terrain data sets are provided in accordance with point AIS.OR.355:

(a) terrain data sets shall contain the digital representation of the terrain surface in the form of continuous elevation values at all intersections of a defined grid, referenced to a common datum;

(b) a terrain grid shall be angular or linear and shall be of a regular or irregular shape;

(c) terrain data sets shall include spatial (position and elevation), thematic, and temporal aspects of the surface of the Earth, containing naturally occurring features, excluding obstacles;

(d) only one feature type, i.e. terrain, shall be provided;

(e) the following terrain feature attributes shall be recorded in the terrain data set:

(1) area of coverage;

(2) identification of the data originator;

(3) data source identifier;

(4) acquisition method;

(5) post spacing;

(6) horizontal reference system;

(7) horizontal resolution;

(8) horizontal accuracy;

(9) horizontal confidence level;

(10) horizontal position;

(11) elevation;

(12) elevation reference;

(13) vertical reference system;

(14) vertical resolution;

(15) vertical accuracy;

(16) vertical confidence level;

(17) recorded surface;

(18) integrity;

(19) date and time stamp; and

(20) unit of measurement used;

(f) within the area covered by a 10-km radius from the ARP, terrain data shall comply with the Area 2 numerical requirements;

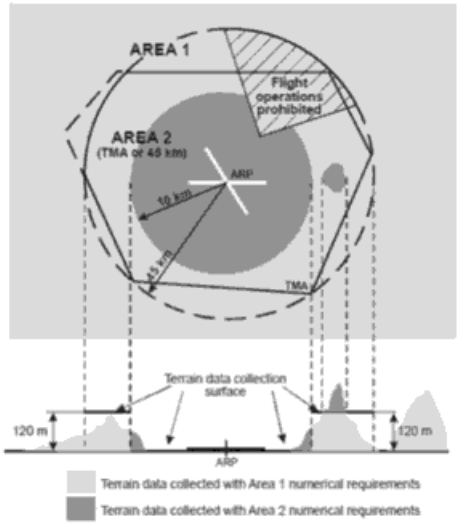
(g) in the area between 10 km and the TMA boundary or a 45-km radius, whichever is smaller, data on terrain that penetrates the horizontal plane 120 m above the lowest runway elevation shall comply with the Area-2 numerical requirements;

(h) in the area between 10 km and the TMA boundary or a 45-km radius, whichever is smaller, data on terrain that does not penetrate the horizontal plane 120 m above the lowest runway elevation shall comply with the Area-1 numerical requirements; and

(i) in those portions of Area 2 where flight operations are prohibited due to very high terrain or other local restrictions or other local restrictions or regulations, terrain data shall comply with the Area 1 numerical requirements.

The following diagram contains a graphical illustration of Area 1 and Area 2 terrain data collection surfaces:

Terrain data collection surfaces – Area 1 and Area 2



AIS.TR.360 Obstacle data sets

When obstacle data sets are provided in accordance with point AIS.OR.360:

(a) obstacle data items are features that shall be represented in the data sets by points, lines or polygons;

(b) all defined obstacle feature types shall be provided and each of them shall be described according to the following list of attributes:

(1) area of coverage;

(2) identification of the data originator;

(3) data source identifier;

(4) obstacle identifier;

(5) horizontal accuracy;

(6) horizontal confidence level;

(7) horizontal position;

(8) horizontal resolution;

(9) horizontal extent;

(10) horizontal reference system;

(11) elevation;

(12) vertical accuracy;

(13) vertical confidence level;

(14) vertical resolution;

(15) vertical reference system;

(16) obstacle type;

(17) geometry type;

(18) integrity;

(19) date and time stamp;

(20) unit of measurement used;

(21) lighting; and

(22) marking;

(c) obstacle data for Areas 2 and 3 shall be collected in accordance with the following obstacle collection surfaces:

(1) the Area 2a obstacle collection surface has a height of 3 m above the nearest runway elevation measured along the runway centre line, and for those portions related to a clearway, if one exists, at the elevation of the nearest runway end;

(2) the Area 2b obstacle collection surface has a 1.2 % slope extending from the ends of Area 2a at the elevation of the runway end in the direction of departure, with a length of 10 km and a splay of 15 % to each side; obstacles less than 3 m in height above the ground need not be collected;

(3) the Area 2c obstacle collection surface has a 1.2 % slope extending outside Areas 2a and 2b at a distance of not more than 10 km from the boundary of Area 2a; the initial elevation of Area 2c shall be the elevation of the point of Area 2a at which it commences; obstacles less than 15 m in height above the ground need not be collected;

(4) the Area 2d obstacle collection surface has a height of 100 m above the ground; and

(5) the Area 3 obstacle collection surface extends 0.5 m above the horizontal plane passing through the nearest point on the aerodrome movement area;

(d) in those portions of Area 2 where flight operations are prohibited due to very high terrain or other local restrictions or regulations, obstacle data shall be collected and recorded in accordance with the Area 1 numerical requirements;

(e) the obstacle data product specification, supported by geographical coordinates for each aerodrome included within the dataset, shall describe the following areas:

(1) Areas 2a, 2b, 2c and 2d;

(2) the take-off flight path area; and

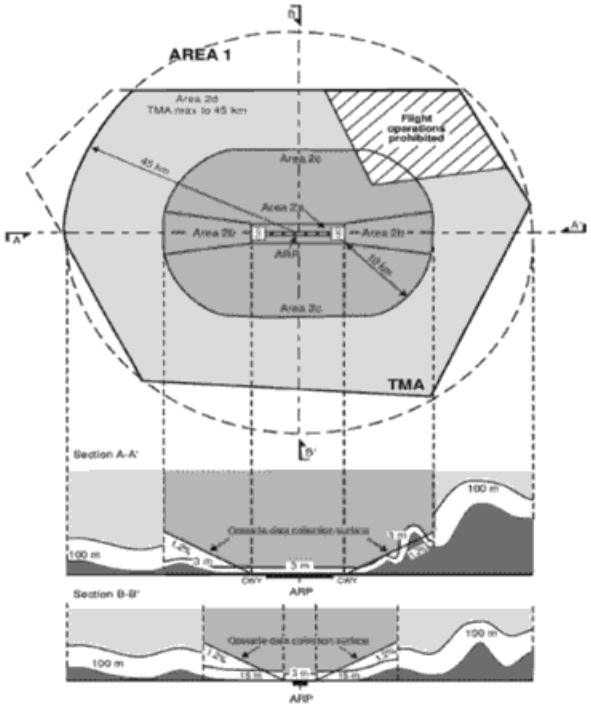
(3) the obstacle limitation surfaces;

(f) obstacle data sets shall contain the digital representation of the vertical and horizontal extent of the obstacles; and

(g) obstacles shall not be included in terrain data sets.

The following diagram contains a graphical illustration of Area 1 and Area 2 obstacle data collection surfaces and criteria used to identify obstacles in Area 2.

Obstacle data collection surfaces – Area 1 and Area 2



AIS.TR.365 Aerodrome mapping data sets

(a) Aerodrome mapping data sets shall contain the digital representation of aerodrome features.

(b) ISO standards for geographic information shall be used as a reference framework.

(c) Aerodrome mapping data products shall be described following the relevant data product specification standard.

(d) The content and structure of aerodrome mapping data sets shall be defined in terms of an application schema and a feature catalogue.

AIS.TR.370 Instrument flight procedure data sets

(a) Instrument flight procedure data sets shall contain the digital representation of instrument flight procedures.

(b) The instrument flight procedure data sets shall include data about the following subjects, including all of their properties:

(1) procedure;

(2) procedure segment;

(3) final approach segment;

(4) procedure fix;

(5) procedure holding;

(6) helicopter procedure specifics.

SECTION 4 – DISTRIBUTION AND PRE-FLIGHT INFORMATION SERVICES

AIS.TR.400 Distribution services

(a) A predetermined distribution system for NOTAM transmitted on the AFS shall be used whenever possible.

(b) Distribution of NOTAM series other than those distributed internationally shall be granted upon request.

(c) NOTAM shall be prepared in conformity with ICAO communication procedures laid down in ICAO Annex 10, Volume II (Seventh Edition, July 2016) to the Chicago Convention.

(d) Each NOTAM shall be transmitted as a single telecommunication message.

(e) The international exchange of ASHTAM and NOTAM where NOTAM is used for distribution of information on volcanic activity, shall include volcanic ash advisory centres and the world area forecast centres, and take account of the requirements of long-range operations.

AIS.TR.405 Pre-flight information services

(a) Automated pre-flight information systems shall be used to make aeronautical data and aeronautical information available to operations personnel, including flight crew members, for self-briefing, flight planning and flight information service purposes.

(b) The human machine interface of the pre-flight information services facilities shall ensure easy access to all relevant information or data in a guided manner.

(c) Self-briefing facilities of an automated pre-flight information system shall provide access, as necessary, to the aeronautical information service for consultation by telephone or other suitable telecommunication means.

(d) Automated pre-flight information systems for the supply of aeronautical data and aeronautical information for self-briefing, flight planning and flight information service shall:

(1) provide for continuous and timely updating of the system database and monitoring of the validity and quality of the aeronautical data stored;

(2) permit access to the system by operations personnel, including flight crew members, aeronautical personnel concerned and other aeronautical users, through suitable telecommunications means;

(3) ensure the provision of the aeronautical data and aeronautical information accessed, in paper form, as required;

(4) use access and interrogation procedures based on abbreviated plain language and ICAO location indicators laid down in ICAO Doc 7910, as appropriate, or based on a menu-driven user interface or other appropriate mechanism;

(5) provide a timely response to a user request for information.

(e) All NOTAM shall be made available for briefing by default, and content reduction shall be at user's discretion.

SECTION 5 – AERONAUTICAL INFORMATION PRODUCTS UPDATES

AIS.TR.500 General – Aeronautical information products updates

The same AIRAC cycle update shall be applied to the AIP amendments, AIP supplements, AIP data set and the instrument flight procedure data sets in order to ensure consistency of the data items that appear in multiple aeronautical information products.

AIS.TR.505 AIRAC

(a) Information concerning the following circumstances shall be distributed under the AIRAC system:

(1) horizontal and vertical limits, regulations and procedures applicable to:

(i) flight information regions (FIRSs);

(ii) control areas (CTAs);

(iii) control zones;

(iv) advisory areas;

(v) ATS routes;

(vi) permanent danger, prohibited and restricted areas (including type and periods of activity, when known) and air defence identification zones (ADIZs);

(vii) permanent areas or routes, or portions of these, where the possibility of interception exists;

(viii) RMZ, TMZ or both;

(2) positions, frequencies, call signs, identifiers, known irregularities and maintenance periods of radio navigation aids, and communication and surveillance facilities;

(3) holding and approach procedures, arrival and departure procedures, noise abatement procedures and any other pertinent ATS procedures;

(4) transition levels, transition altitudes and minimum sector altitudes;

(5) meteorological facilities (including broadcasts) and procedures;

(6) runways and stopways;

(7) taxiways and aprons;

(8) aerodrome ground operating procedures (including low-visibility procedures);

(9) approach and runway lighting; and

(10) aerodrome operating minima.

(b) Special arrangements shall be made whenever major changes are planned and where advance notice is desirable and practicable.

(c) When information has not been submitted by the AIRAC date, a NIL notification shall be distributed through a NOTAM or other suitable means, not later than one cycle before the AIRAC effective date concerned.

AIS.TR.510 NOTAM

(a) A NOTAM shall be published with sufficient lead time for the affected parties to take any required action, except in the case of unserviceability, volcanic activity, release of radioactive material, toxic chemicals and other events that cannot be foreseen.

(b) A NOTAM notifying unserviceability of aids to air navigation, facilities or communication services shall provide an estimate of the unserviceability period or of the time at which restoration of service is expected.

(c) Within three months from the issuing of a permanent NOTAM, the information contained in the NOTAM shall be included in the aeronautical information products affected.

(d) Within three months from the issuing of a temporary NOTAM of long duration (three months or longer), the information contained in the NOTAM shall be included in an AIP supplement.

(e) When a NOTAM with an estimated end of validity unexpectedly exceeds the three-month period, a replacement NOTAM shall be issued unless the condition is expected to last for a further period of more than three months; in that case, an AIP supplement shall be issued.

(f) A ‘trigger NOTAM’ shall briefly describe the content, the effective date and time, as well as the reference number of the amendment, or supplement.

(g) A 'trigger NOTAM' shall come into force on the same effective date and time as the AIP amendment or supplement.

(h) In the case of an AIP amendment, a 'trigger NOTAM' shall remain valid for a period of 14 days.

(i) In the case of an AIP supplement that is valid for less than 14 days, the 'trigger NOTAM' shall remain valid for the complete validity period of the AIP supplement.

(j) In the case of an AIP supplement that is valid for 14 days or more, the 'trigger NOTAM' shall remain valid for at least 14 days.

AIS.TR.515 Data set updates

(a) The update interval for the AIP data set and the instrument flight procedure data sets shall be specified in the data product specification.

(b) Data sets that have been made available in advance, according to the AIRAC cycle, shall be updated with the non-AIRAC changes that occurred between the publication and the effective date.".

CHAPTER 7

Amendment of Commission Regulation (EU) 2018/395

Commission Regulation (EU) 2018/395 (balloons)

30. Commission Regulation (EU) 2018/395 of 13 March 2018 laying down detailed rules for the operation of balloons as well as for the flight crew licensing for balloons pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council(**8**) is amended in accordance with regulation 31.

Amendment of Article 3b of Commission Regulation (EU) 2018/395

31. In Article 3b (existing pilot licences and national medical certificates), paragraph 3, for "8 April 2021" substitute "8 December 2023".

CHAPTER 8

Amendment of Commission Implementing Regulation (EU) 2018/1976

Commission Implementing Regulation (EU) 2018/1976 (sailplanes)

32. Commission Regulation (EU) 2018/1976 of 14 December 2018 laying down detailed rules for the operation of sailplanes as well as for the flight crew licensing for sailplanes pursuant to Regulation (EU) 2018/1139 of the European Parliament and of the Council(**9**) is amended in accordance with regulation 33.

Amendment of Article 3b of Commission Implementing Regulation (EU) 2018/1976

33. In Article 3b (existing pilot licences and national medical certificates), paragraph 3, for "8 April 2021" substitute "8 December 2023".

(**8**) EUR 2018/395, amended by S.I. 2019/1098, 2020/1116 and 2021/10.
(**9**) EUR 2018/1976, amended by S.I. 2019/1098, 2020/1116 and 2021/10.

CHAPTER 9

Amendment of Commission Implementing Regulation (EU) No 2019/947

Commission Implementing Regulation (EU) 2019/947 (operation of unmanned aircraft)

34. Commission Implementing Regulation (EU) 2019/947 of 24 May 2019 on the rules and procedures for the operation of unmanned aircraft(**10**) is amended in accordance with regulation 35.

Amendment of Article 14 of Commission Implementing Regulation (EU) 2019/947

35.—(1) In Article 14, paragraph 5 (registration of UAS operators and certified UAS), in the words before point (a), before "UAS operators shall register themselves" insert "Subject to paragraph 5A,".

(2) After paragraph 5, insert—

"**5A.** Paragraph 5 does not apply to UAS operations performed with a small control line model aircraft:

(a) in the 'open' category;

(b) in the 'specific' category in accordance with an authorisation received under Article 16.".

(3) After paragraph 9, insert—

"**10.** In this Article, "small control line model aircraft" means a fixed-wing unmanned aircraft having a MTOM of not more than 7.5 kg and which is flown within limits imposed by a restraining device of not more than 25 metres in length which attaches the aircraft to the surface or to a person on the surface.".

(**10**) EUR 2019/947, amended by S.I. 2020/1593 and 2021/10.