



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Tel.: +1 514-954-8219 ext. 8080

Ref.: AN 12/1.1.23-18/11

28 March 2018

Subject: Adoption of Amendment 175 to Annex 1

Action required: a) Notify any disapproval before 16 July 2018; b) Notify any differences and compliance before 8 October 2018¹; c) Consider the use of the Electronic Filing of Differences (EFOD) System for notification of differences and compliance

Sir/Madam,

1. I have the honour to inform you that Amendment 175 to the *International Standards and Recommended Practices, Personnel Licensing* (Annex 1 to the Convention on International Civil Aviation) was adopted by the Council at the fifth meeting of its 213th Session on 7 March 2018. Copies of the Amendment and the Resolution of Adoption are available as attachments to the electronic version of this State letter on the ICAO-NET (<http://portal.icao.int>) where you can access all other relevant documentation.

2. When adopting the amendment, the Council prescribed 16 July 2018 as the date on which it will become effective, except for any part concerning which a majority of Contracting States have registered their disapproval before that date. In addition, the Council resolved that Amendment 175, to the extent it becomes effective, will become applicable on 8 November 2018 unless otherwise indicated.

¹ 5 October 2020 for provisions indicating applicable as of 5 November 2020; and
3 October 2022 for provisions indicating applicable as of 3 November 2022

3. Amendment 175 arises from:
 - a) recommendations developed by the fifth and sixth meetings of the Remotely Piloted Aircraft Systems Panel (RPASP/5 and RPASP/6);
 - b) recommendations stemming from the third and fourth meetings of the Airworthiness Panel (AIRP/3 and 4); and
 - c) recommendation by the Air Navigation Commission following the review of proposals arising from the second meeting of the Meteorology Panel (METP/2).

4. The amendment concerning RPAS relates to the introduction of a regulatory structure for the issuance of remote pilot licences and the provision of a global framework for the regulation of RPAS licensing to support international flights operating under international instrument flight rules (IFR). According to Annex 2 — *Rules of the Air*, Appendix 4 – *Remotely Piloted Aircraft Systems* and in order for RPAS to be integrated, the remote pilots involved in international operations must be licensed or have their licences rendered valid in a manner that is consistent with the provisions of Annex 1. The amendment introduces Standards and Recommended Practices (SARPs) that will guide States in setting their own national RPAS regulations within the current scope of IFR operations.

5. The amendment regarding approval and global recognition of approved maintenance organizations (AMOs) concerns provisions developed in two phases. These provisions will facilitate and enhance the promotion of the mutual recognition of AMOs and will ensure the clear allocation of responsibility for the approval of an AMO to the State of Registry.

6. The consequential amendment regarding aeronautical meteorological personnel concerns an adjustment to the reference to the World Meteorological Organization (WMO) requirements for the qualifications, competencies, education and training of aeronautical meteorological personnel to be consistent with the relevant World Meteorological Organization Technical Regulations. It aligns with an update to Annex 3 — *Meteorological Service for International Air Navigation*.

7. The subjects are given in the amendment to the Foreword of Annex 1, a copy of which is in Attachment A.

8. In conformity with the Resolution of Adoption, may I request:
 - a) that before 16 July 2018 you inform me if there is any part of the adopted Standards and Recommended Practices (SARPs) amendments in Amendment 175 concerning which your Government wishes to register disapproval, using the form in Attachment B for this purpose. Please note that only statements of disapproval need be registered and if you do not reply it will be assumed that you do not disapprove of the amendment;
 - b) that before 8 October 2018² you inform me of the following, using the Electronic Filing of Differences (EFOD) System or the form in Attachment C for this purpose:

² 5 October 2020 for provisions indicating applicable as of 5 November 2020; and
3 October 2022 for provisions indicating applicable as of 3 November 2022

- 1) any differences that will exist on 8 November 2018 between the national regulations or practices of your Government and the provisions of the whole of Annex 1, as amended by all amendments up to and including Amendment 175, and thereafter of any further differences that may arise; and
- 2) the date or dates by which your Government will have complied with the provisions of the whole of Annex 1, as amended by all amendments up to and including Amendment 175.

9. With reference to the request in paragraph 8 a) above, it should be noted that a registration of disapproval of Amendment 175 or any part of it in accordance with Article 90 of the Convention does not constitute a notification of differences under Article 38 of the Convention. To comply with the latter provision, a separate statement is necessary if any differences do exist, as requested in paragraph 8 b) 1). It is recalled in this respect that international Standards in Annexes have a conditional binding force, to the extent that the State or States concerned have not notified any difference thereto under Article 38 of the Convention.

10. With reference to the request in paragraph 8 b) above, it should be also noted that the ICAO Assembly, at its 38th Session (24 September – 4 October 2013), resolved that Member States should be encouraged to use the EFOD System when notifying differences (Resolution A38-11, refers). The EFOD System is currently available on the Universal Safety Oversight Audit Programme (USOAP) restricted website (<http://www.icao.int/usoap>) which is accessible by all Member States. You are invited to consider using this for notification of compliance and differences.

11. Guidance on the determination and reporting of differences is given in the Note on the Notification of Differences in Attachment D. Please note that a detailed repetition of previously notified differences, if they continue to apply, may be avoided by stating the current validity of such differences.

12. I would appreciate it if you would also send a copy of your notifications, referred to in paragraph 8 b) above, to the ICAO Regional Office accredited to your Government.

13. At the fifth meeting of its 204th Session, the Council requested that States, when being advised of the adoption of an Annex amendment, be provided with information on implementation and available guidance material, as well as an impact assessment. This is presented for your information in Attachments E and F, respectively.

Editorial adjustment and comprehensive new edition of Annex 1

14. In order to maintain a comprehensive edition of Annex 1, provisions that will become applicable on a date after 8 November 2018 as a result of Amendment 175 will feature the date at the beginning of each provision along with an italicized paragraph number. Definitions related to those provisions with delayed applicability date are identified by a footnote indicating the date of applicability. Further information relating to the new editorial adjustment is available at <https://www.icao.int/2018-amendments>.

15. As soon as practicable after the amendment becomes effective on 16 July 2018, a new edition of Annex 1 incorporating Amendment 175 will be forwarded to you.

Accept, Sir/Madam, the assurances of my highest consideration.

A handwritten signature in blue ink, appearing to read 'Fang Liu', with a horizontal line underneath.

Fang Liu
Secretary General

Enclosures:

- A — Amendment to the Foreword of Annex 1
- B — Form on notification of disapproval of all or part of Amendment 175 to Annex 1
- C — Form on notification of compliance with or differences from Annex 1
- D — Note on the Notification of Differences
- E — Implementation task list and outline of guidance material in relation to Amendment 175 to Annex 1
- F — Impact assessment in relation to Amendment 175 to Annex 1

ATTACHMENT A to State letter AN 12/1.1.23-18/11

AMENDMENT TO THE FOREWORD OF ANNEX 1

Add the following at the end of Table A:

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject</i>	<i>Adopted/Approved Effective Applicable</i>
175	Fifth and sixth meetings of the Remotely Piloted Aircraft Panel (RPASP/5 and 6); third and fourth meetings of the Airworthiness Panel (AIRP/3 and 4); Air Navigation Commission following the review of proposals arising from the second meeting of the Meteorology Panel (METP/2)	<ul style="list-style-type: none"> a) Introduction of a regulatory structure for the issuance of remote pilot licences and the provision of a global framework for the regulation of RPAS licensing to support international flight operations b) Approval and global recognition of AMOs and design standards and continuing airworthiness c) Amendment concerning an adjustment to the reference to the WMO requirements for the qualifications, competencies, education and training of aeronautical meteorological personnel 	7 March 2018 16 July 2018 8 November 2018

ATTACHMENT B to State letter AN 12/1.1.23-18/11

**NOTIFICATION OF DISAPPROVAL OF ALL OR PART OF
AMENDMENT 175 TO ANNEX 1**

To: The Secretary General
International Civil Aviation Organization
999 Robert-Bourassa Boulevard
Montréal, Québec
Canada H3C 5H7

(State) _____ hereby wishes to disapprove the following parts of
Amendment 175 to Annex 1:

Signature _____

Date _____

NOTES

- 1) If you wish to disapprove all or part of Amendment 175 to Annex 1, please dispatch this notification of disapproval to reach ICAO Headquarters by 16 July 2018. If it has not been received by that date it will be assumed that you do not disapprove of the amendment. **If you approve of all parts of Amendment 175, it is not necessary to return this notification of disapproval.**
- 2) This notification should not be considered a notification of compliance with or differences from Annex 1. Separate notifications on this are necessary. (See Attachment C.)
- 3) Please use extra sheets as required.

ATTACHMENT C to State letter AN 12/1.1.23-18/11

**NOTIFICATION OF COMPLIANCE WITH OR DIFFERENCES FROM ANNEX 1
(including all amendments up to and including Amendment 175)**

To: The Secretary General
International Civil Aviation Organization
999 Robert-Bourassa Boulevard
Montréal, Québec
Canada H3C 5H7

1. No differences will exist on _____ between the national regulations and/or practices of **(State)** _____ and the provisions of Annex 1, including all amendments up to and including Amendment 175.

2. The following differences will exist on _____ between the regulations and/or practices of **(State)** _____ and the provisions of Annex 1, including Amendment 175 (Please see Note 2) below.)

a) Annex Provision (Please give exact paragraph reference)	b) Details of Difference (Please describe the difference clearly and concisely)	c) Remarks (Please indicate reasons for the difference)
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(Please use extra sheets as required.)

3. By the dates indicated below, (State) _____ will have complied with the provisions of Annex 1, including all amendments up to and including Amendment 175 for which differences have been notified in 2 above.

a) Annex Provision (Please give exact paragraph reference)	b) Date	c) Comments
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(Please use extra sheets as required.)

Signature _____

Date _____

NOTES

- 1) If paragraph 1 above is applicable to your State, please complete paragraph 1 and return this form to ICAO Headquarters. If paragraph 2 is applicable to you, please complete paragraphs 2 and 3 and return the form to ICAO Headquarters.
- 2) A detailed repetition of previously notified differences, if they continue to apply, may be avoided by stating the current validity of such differences.
- 3) Guidance on the notification of differences is provided in the Note on the Notification of Differences and in the *Manual on Notification and Publication of Differences* (Doc 10055).
- 4) Please send a copy of this notification to the ICAO Regional Office accredited to your Government.

ATTACHMENT D to State letter AN 12/1.1.23-18/11

NOTE ON THE NOTIFICATION OF DIFFERENCES
(Prepared and issued in accordance with instructions of the Council)

1. *Introduction*

1.1 Article 38 of the *Convention on International Civil Aviation* (“Convention”) requires that a Contracting State notify ICAO any time it does not comply with a Standard in all respects, it does not bring its regulations or practices into full accord with any Standard, or it adopts regulations or practices differing in any particular respect from the Standard.

1.2 The Assembly and the Council, when reviewing the notification of differences by Contracting States in compliance with Article 38 of the Convention, have repeatedly noted that the timeliness and currency of such notifications is not entirely satisfactory. Therefore, this note is issued to reiterate the primary purpose of Article 38 of the Convention and to facilitate the determination and notification of differences.

1.3 The primary purpose of the notification of differences is to promote safety, regularity and efficiency in air navigation by ensuring that governmental and other agencies, including operators and service providers, concerned with international civil aviation are made aware of all national regulations and practices in so far as they differ from those prescribed in the Standards contained in Annexes to the Convention.

1.4 Contracting States are, therefore, requested to give particular attention to the notification of differences with respect to Standards in all Annexes, as described in paragraph 4 b) 1) of the Resolution of Adoption.

1.5 Although differences from Recommended Practices are not notifiable under Article 38 of the Convention, the Assembly has urged Contracting States to extend the above considerations to Recommended Practices contained in Annexes to the Convention, as well.

2. *Notification of differences from Standards and Recommended Practices (SARPs)*

2.1 Guidance to Contracting States in the notification of differences to Standards and Recommended Practices (SARPs) can only be given in very general terms. Contracting States are further reminded that compliance with SARPs generally extends beyond the issuance of national regulations and requires establishment of practical arrangements for implementation, such as the provision of facilities, personnel and equipment and effective enforcement mechanisms. Contracting States should take those elements into account when determining their compliance and differences. The following categories of differences are provided as a guide in determining whether a notifiable difference exists:

- a) *A Contracting State’s requirement is more exacting or exceeds a SARP (Category A)*. This category applies when the national regulation and practices are more demanding than the corresponding SARP, or impose an obligation within the scope of the Annex which is not covered by the SARP. This is of particular importance where a Contracting State requires a higher standard which affects the operation of aircraft of other Contracting States in and above its territory;

- b) *A Contracting State's requirement is different in character or the Contracting State has established other means of compliance (Category B)**. This category applies, in particular, when the national regulation and practices are different in character from the corresponding SARP, or when the national regulation and practices differ in principle, type or system from the corresponding SARP, without necessarily imposing an additional obligation; and
- c) *A Contracting State's requirement is less protective, partially implemented or not implemented (Category C)*. This category applies when the national regulation and practices are less protective than the corresponding SARP; when no national regulation has been promulgated to address the corresponding SARP, in whole or in part; or when the Contracting State has not brought its practices into full accord with the corresponding SARP.

These categories do not apply to Not Applicable SARP. Please see the paragraph below.

2.2 **Not Applicable SARP.** When a Contracting State deems a SARP concerning aircraft, operations, equipment, personnel, or air navigation facilities or services to be not applicable to the existing aviation activities of the State, notification of a difference is not required. For example, a Contracting State that is not a State of Design or Manufacture and that does not have any national regulations on the subject, would not be required to notify differences from Annex 8 provisions related to the design and construction of an aircraft.

2.3 **Differences from appendices, tables and figures.** The material comprising a SARP includes not only the SARP itself, but also the appendices, tables and figures associated with the SARP. Therefore, differences from appendices, tables and figures are notifiable under Article 38. In order to file a difference against an appendix, table or figure, States should file a difference against the SARP that makes reference to the appendix, table or figure.

2.4 **Differences from definitions.** Contracting States should notify differences from definitions. The definition of a term used in a SARP does not have independent status but is an essential part of each SARP in which the term is used. Therefore, a difference from the definition of the term may result in there being a difference from any SARP in which the term is used. To this end, Contracting States should take into consideration differences from definitions when determining compliance or differences to SARPs in which the terms are used.

2.5 The notification of differences should be not only to the latest amendment but to the whole Annex, including the amendment. In other words, Contracting States that have already notified differences are requested to provide regular updates of the differences previously notified until the difference no longer exists.

2.6 Further guidance on the identification and notification of differences, examples of well-defined differences and examples of model processes and procedures for management of the notification of differences can be found in the *Manual on Notification and Publication of Differences* (Doc 10055).

* The expression "different in character or other means of compliance" in b) would be applied to a national regulation and practice which achieve, by other means, the same objective as that of the corresponding SARPs or for other substantive reasons so cannot be classified under a) or c).

3. *Form of notification of differences*

3.1 Differences can be notified:

- a) by sending to ICAO Headquarters a form on notification of compliance or differences; or
- b) through the Electronic Filing of Differences (EFOD) System at www.icao.int/usoap.

3.2 When notifying differences, the following information should be provided:

- a) the number of the paragraph or subparagraph which contains the SARP to which the difference relates*;
- b) the reasons why the State does not comply with the SARP, or considers it necessary to adopt different regulations or practices;
- c) a clear and concise description of the difference; and
- d) intentions for future compliance and any date by which your Government plans to confirm compliance with and remove its difference from the SARP for which the difference has been notified.

3.3 The differences notified will be made available to other Contracting States, normally in the terms used by the Contracting State when making the notification. In the interest of making the information as useful as possible, Contracting States are requested to ensure that:

- a) statements be as clear and concise as possible and be confined to essential points;
- b) the provision of extracts from national regulations not be considered as sufficient to satisfy the obligation to notify differences; and
- c) general comments, unclear acronyms and references be avoided.

* This applies only when the notification is made under 3.1 a).

**IMPLEMENTATION TASK LIST AND OUTLINE OF GUIDANCE MATERIAL
IN RELATION TO AMENDMENT 175 TO ANNEX 1**

1. IMPLEMENTATION TASK LIST

1.1 Essential steps to be followed by a State in order to implement the amendment to Annex 1:

- a) identification of the rule-making process necessary to transpose the amendments concerning the following provisions into the national regulation taking into consideration the applicability date:
 - 1) the introduction of a regulatory structure for the issuance of remote pilot licences and the provision of a global framework for the regulation of remotely piloted aircraft systems (RPAS) licensing to support international flights operating under instrument flight rules (IFR);
 - 2) amendment of affected references and definitions concerning the transfer of the AMO Standards and Recommended Practices (SARPs) from Annex 6, Part I — *International Commercial Air Transport — Aeroplanes*, 8.7 to a new Chapter 6 in Part II of Annex 8; and
 - 3) amendment to the Note to Chapter 4, 4.8 related to aeronautical meteorological personnel;
- b) identification and notification of differences, if applicable;
- c) establishment of a national implementation plan that takes into consideration the provisions that are under development to complement the above provisions and to confirm compliance for each applicable air operator;
- d) drafting of the amendment(s) to the national requirements and means of compliance;
- e) official adoption of national requirements and/or means of compliance (industry guidance);
- f) amendment of licensing, approved maintenance organization and approved training organizations' oversight programmes to include new requirements;
- g) revision of guidance material(s) and checklist(s) for applicable inspectors that support the issuance of remote pilot licences, approved maintenance organization and the approval of training programmes for remote pilots, surveillance and the resolution of any issues identified; and
- h) training of inspectors based on the revised inspector guidance material.
- i) operational acceptance of policy and procedures of approved maintenance organization (s) to comply with applicable requirements.

2. STANDARDIZATION PROCESS

2.1 Effective date: 16 July 2018

2.2 Applicability date: 8 November 2018

2.3 Embedded applicability date(s):

- a) 5 November 2020 for elements concerning approval and global recognition of approved maintenance organizations (AMOs); and
- b) 3 November 2022 for elements concerning the introduction of a regulatory structure for the issuance of remote pilot licences and the provision of a global framework for the regulation of RPAS licensing to support international flights operating under IFR.

3. SUPPORTING DOCUMENTATION

3.1 ICAO documentation

Title	Type (PANS/TI/Manual/Circ)	Planned publication date
<i>Procedures for Air Navigation Services — Training (Doc 9868)</i>	PANS	July 2018 ¹
<i>Manual of Procedures for Establishment and Management of a State's Personnel Licensing System (Doc 9379)</i>	Manual	July 2018
<i>Manual on Remotely Piloted Aircraft Systems (RPAS) (Doc 10019)</i>	Manual	2019
<i>Airworthiness Manual (Doc 9760)</i>	Manual	2018
<i>Human Factors Training Manual (Doc 9683)</i>	Manual	Updated in 2018
<i>Manual on Aeroplane Upset Prevention and Recovery Training (Doc 10011)</i>	Manual	2018
<i>Manual of Criteria for the Qualification of Flight Simulation Training Devices (Doc 9625)</i>	Manual	2018
<i>Manual on Training of Aircraft Maintenance Personnel (Doc 10098)</i>	Manual	2020

¹ Applicability date will be 5 November 2020.

3.2 **External documentation**

Title	External Organization	Publication date
N/A		

4. **IMPLEMENTATION ASSISTANCE TASKS**

Type	Global	Regional
Increased awareness		By RASGs, RSOOs, regional offices and COSCAPs regarding amendments to Annex I

5. **UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME (USOAP)**

5.1 The content of this paper may require an amendment of the USOAP continuous monitoring approach (CMA) protocol questions in the areas of personnel licensing (PEL), airworthiness of aircraft (AIR) and aircraft operations (OPS) to assess effective implementation by States. Existing protocol questions may need amendment or new protocol questions may be required. This will be assessed during the next amendment cycle of the protocol questions.

IMPACT ASSESSMENT IN RELATION TO AMENDMENT 175 TO ANNEX 1

1. INTRODUCTION

1.1 Amendment 175 to Annex 1 is intended to:

- a) introduce a regulatory structure for the issuance of remote pilot licences and the provision of a global framework for the regulation of remotely piloted aircraft systems (RPAS) licensing to support international flights operating under instrument flight rules (IFR);
- b) amend affected references and definitions concerning the transfer of the AMO Standards and Recommended Practices (SARPs) from Annex 6, Part I — *International Commercial Air Transport — Aeroplanes*, 8.7 to a new Chapter 6 in Part II of Annex 8; and
- c) update the reference to the World Meteorological Organization (WMO) requirements for qualifications, competency, education and training of aeronautical meteorological personnel.

2. IMPACT ASSESSMENT

2.1 **Introduction of a regulatory structure for the issuance of remote pilot licences and the provision of a global framework for the regulation of RPAS licensing to support international flights operating under IFR**

2.1.1 *Safety impact:* RPAS is a new component of the aviation system that needs to be integrated safely into the aviation system as it is today. Licensing is an essential aspect of aviation safety. The remote pilot licensing framework will, therefore, ensure minimum competency of remote pilots for safe operations of RPAS and integration into international traffic.

2.1.2 *Financial impact:* For States, this amendment will require an increase in resources for an effective implementation of regulations, the setup of competency-based training and assessment (CBTA) activities and the oversight of approved training organizations. For the industry, resources will be needed for the development and implementation of CBTA programmes to ensure remote pilot proficiency over time. Some training for other stakeholders of the aviation industry may be required.

2.1.3 *Security impact:* No security impact with the implementation of this amendment.

2.1.4 *Environmental impact:* Implementation of these provisions has no environmental impact.

2.1.5 *Efficiency impact:* Standardization and harmonization of licensing requirements for remote pilots will improve airspace integration of RPAS in a safe manner.

2.1.6 *Expected implementation time:* It is considered that three years is the normal cycle for regional or national adaptation of a major amendment to an Annex that influences legislation. RPAS and CBTA are new subjects which may require some additional time.

2.2 Approval and global recognition of AMOs

- 2.2.1 *Safety impact:* No safety impact with the implementation of this amendment.
- 2.2.2 *Financial impact:* No financial impact with the implementation of this amendment.
- 2.2.3 *Security impact:* No security impact with the implementation of this amendment.
- 2.2.4 *Environmental impact:* Implementation of these provisions has no environmental impact.
- 2.2.5 *Efficiency impact:* It is not anticipated that there will be a net change in the efficiency of the air transportation system.
- 2.2.6 *Expected implementation time:* There is no significant change to State regulations foreseen with the implementation of this amendment.

2.3 Aeronautical meteorological personnel

- 2.3.1 *Safety impact:* No safety impact with the implementation of this amendment.
- 2.3.2 *Financial impact:* No financial impact with the implementation of this amendment.
- 2.3.3 *Security impact:* No security impact with the implementation of this amendment.
- 2.3.4 *Environmental impact:* Implementation of these provisions has no environmental impact.
- 2.3.5 *Efficiency impact:* It is not anticipated that there will be a net change in the efficiency of the air transportation system.
- 2.3.6 *Expected implementation time:* There is no significant change to State regulations foreseen with the implementation of this amendment.

AMENDMENT No. 175

TO THE

**INTERNATIONAL STANDARDS
AND RECOMMENDED PRACTICES**

PERSONNEL LICENSING

ANNEX 1

TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION

The amendment to Annex 1 contained in this document was adopted by the Council of ICAO on **7 March 2018**. Such parts of this amendment as have not been disapproved by more than half of the total number of Contracting States on or before **16 July 2018** will become effective on that date and will become applicable on **8 November 2018** as specified in the Resolution of Adoption. (State letter AN 12/1.1.23-18/11 refers.)

MARCH 2018

INTERNATIONAL CIVIL AVIATION ORGANIZATION

**AMENDMENT 175 TO THE INTERNATIONAL STANDARDS
AND RECOMMENDED PRACTICES**

ANNEX 1 — *PERSONNEL LICENSING*

RESOLUTION OF ADOPTION

The Council

Acting in accordance with the Convention on International Civil Aviation, and particularly with the provisions of Articles 37, 54 and 90 thereof,

1. *Hereby adopts* on 7 March 2018 Amendment 175 to the International Standards and Recommended Practices contained in the document entitled *International Standards and Recommended Practices, Personnel Licensing* which for convenience is designated Annex 1 to the Convention;
2. *Prescribes* 16 July 2018 as the date upon which the said amendment shall become effective, except for any part thereof in respect of which a majority of the Contracting States have registered their disapproval with the Council before that date;
3. *Resolves* that the said amendment or such parts thereof as have become effective shall become applicable on 8 November 2018 unless otherwise indicated;
4. *Requests the Secretary General:*
 - a) to notify each Contracting State immediately of the above action and immediately after 16 July 2018 of those parts of the amendment which have become effective;
 - b) to request each Contracting State:
 - 1) to notify the Organization (in accordance with the obligation imposed by Article 38 of the Convention) of the differences that will exist on 8 November 2018 between its national regulations or practices and the provisions of the Standards in the Annex as hereby amended, such notification to be made before 8 October 2018¹, and thereafter to notify the Organization of any further differences that arise;
 - 2) to notify the Organization before 8 October 2018¹ of the date or dates by which it will have complied with the provisions of the Standards in the Annex as hereby amended;
 - c) to invite each Contracting State to notify additionally any differences between its own practices and those established by the Recommended Practices, when the notification of such differences is important for the safety of air navigation, following the procedure specified in subparagraph b) above with respect to differences from Standards.

¹ 5 October 2020 for provisions indicating applicable as of 5 November 2020; and
3 October 2022 for provisions indicating applicable as of 3 November 2022.

**NOTES ON THE PRESENTATION OF THE
AMENDMENT TO ANNEX 1**

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

~~Text to be deleted is shown with a line through it.~~

text to be deleted

New text to be inserted is highlighted with grey shading.

new text to be inserted

~~Text to be deleted is shown with a line through it~~ **followed**
by the replacement text which is highlighted with grey
shading.

new text to replace existing text

TEXT OF AMENDMENT 175

TO THE

**INTERNATIONAL STANDARDS
AND RECOMMENDED PRACTICES**

PERSONNEL LICENSING

ANNEX 1

TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION

...

**CHAPTER 1. DEFINITIONS AND GENERAL RULES
CONCERNING LICENCES**

1.1 Definitions

...

Adapted competency model. A group of competencies with their associated description and performance criteria adapted from an ICAO competency framework that an organization uses to develop competency-based training and assessment for a given role.

...

Appropriate airworthiness requirements. The comprehensive and detailed airworthiness codes established, adopted or accepted by a Contracting State for the class of aircraft, engine or propeller under consideration.

Approved maintenance organization.[†] An organization approved by a Contracting State, in accordance with the requirements of Annex 6, Part I, Chapter 8 — Aeroplane Maintenance, to perform maintenance of aircraft or parts thereof and operating under supervision approved by that State.

Note.— Nothing in this definition is intended to preclude that the organization and its supervision be approved by more than one State.

Approved maintenance organization.^{††} An organization approved by a Contracting State, in accordance with the requirements of Annex 6, Part I, Chapter 8 — Aeroplane Maintenance, Annex 8, Part II, Chapter 6 – Maintenance Organization Approval, to perform maintenance of aircraft, engine, propeller or parts thereof and operating under supervision approved by that State.

Note.— Nothing in this definition is intended to preclude that the organization and its supervision be approved by more than one State.

[†] Applicable until 4 November 2020.

^{††} Applicable as of 5 November 2020.

...

Command and control (C2) link. The data link between the remotely piloted aircraft and the remote pilot station for the purposes of managing the flight.

...

Detect and avoid. The capability to see, sense or detect conflicting traffic or other hazards and take the appropriate action.

...

Dual instruction time.^{†††} Flight time during which a person is receiving flight instruction from a properly authorized pilot on board the aircraft.

Dual instruction time.^{††††} Flight time during which a person is receiving flight instruction from a properly authorized pilot on board the aircraft, or from a properly authorized remote pilot using the remote pilot station during a remotely piloted aircraft flight.

...

Flight simulation training device.^{†††} Any one of the following three types of apparatus in which flight conditions are simulated on the ground:

A flight simulator, which provides an accurate representation of the flight deck of a particular aircraft type to the extent that the mechanical, electrical, electronic, etc. aircraft systems control functions, the normal environment of flight crew members, and the performance and flight characteristics of that type of aircraft are realistically simulated;

A flight procedures trainer, which provides a realistic flight deck, and which simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular class;

A basic instrument flight trainer, which is equipped with appropriate instruments, and which simulates the flight deck environment of an aircraft in flight in instrument flight conditions.

Flight simulation training device.^{††††} Any one of the following three types of apparatus in which flight conditions are simulated on the ground:

A flight simulator, which provides an accurate representation of the flight deck of a particular aircraft type or an accurate representation of the RPAS to the extent that the mechanical, electrical, electronic, etc. aircraft systems control functions, the normal environment of flight crew members, and the performance and flight characteristics of that type of aircraft are realistically simulated;

A flight procedures trainer, which provides a realistic flight deck environment or realistic RPAS environment, and which simulates instrument responses, simple control functions of mechanical,

^{†††} Applicable until 2 November 2022.

^{††††} Applicable as of 3 November 2022.

electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular class;

A basic instrument flight trainer, which is equipped with appropriate instruments, and which simulates the flight deck environment of an aircraft in flight or the RPAS environment in instrument flight conditions.

...

Flight time — remotely piloted aircraft systems. The total time from the moment a C2 Link is established between the RPS and the RPA for the purpose of taking off or from the moment the remote pilot receives control following a handover until the moment the remote pilot completes a handover or the C2 Link between the RPS and the RPA is terminated at the end of the flight.

...

Handover. The act of passing piloting control from one remote pilot station to another.

...

Instrument flight time.^{†††} Time during which a pilot is piloting an aircraft solely by reference to instruments and without external reference points.

Instrument flight time.^{††††} Time during which a pilot is piloting an aircraft or a remote pilot is piloting a remotely piloted aircraft solely by reference to instruments and without external reference points.

...

Remote co-pilot. A licensed remote pilot serving in any piloting capacity other than as remote pilot-in-command but excluding a remote pilot who is in the RPS for the sole purpose of receiving flight instruction.

Remote flight crew member. A licensed flight crew member charged with duties essential to the operation of a remotely piloted aircraft system during a flight duty period.

Remote pilot. A person charged by the operator with duties essential to the operation of a remotely piloted aircraft and who manipulates the flight controls, as appropriate, during flight time.

Remote pilot-in-command. The remote pilot designated by the operator as being in command and charged with the safe conduct of a flight.

Remote pilot station (RPS). The component of the remotely piloted aircraft system containing the equipment used to pilot the remotely piloted aircraft.

Remotely piloted aircraft (RPA). An unmanned aircraft which is piloted from a remote pilot station.

^{†††} Applicable until 2 November 2022.

^{††††} Applicable as of 3 November 2022.

Remotely piloted aircraft system (RPAS). A remotely piloted aircraft, its associated remote pilot station(s), the required command and control links and any other components as specified in the type design.

...

Rotorcraft. A power-driven heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors.

Sign a maintenance release (to).[†] To certify that maintenance work has been completed satisfactorily in accordance with the applicable Standards of airworthiness, by issuing the maintenance release referred to in Annex 6.

Sign a maintenance release (to).^{††} To certify that maintenance work has been completed satisfactorily in accordance with the applicable Standards of appropriate airworthiness requirements, by issuing the maintenance release referred to in Annex 6 (in the case of a release not issued by an approved maintenance organization) or Annex 8 (in the case of a release issued by an approved maintenance organization).

...

Solo flight time — remotely piloted aircraft systems. Flight time during which a student remote pilot is controlling the RPAS, acting solo.

...

1.2 General rules concerning licences

...

Note 2.— International Standards and Recommended Practices are established for licensing the following personnel:

a) *Flight crew*

- *private pilot — aeroplane, airship, helicopter or powered-lift;*
- *commercial pilot — aeroplane, airship, helicopter or powered-lift;*
- *multi-crew pilot — aeroplane;*
- *airline transport pilot — aeroplane, helicopter or powered-lift*
- *glider pilot;*
- *free balloon pilot;*
- *flight navigator;*
- *flight engineer; and*
- *applicable as of 3 November 2022, remote pilot — aeroplane, airship, glider, rotorcraft, powered-lift or free balloon.*

...

[†] Applicable until 4 November 2020.

^{††} Applicable as of 5 November 2020.

1.2.1 Authority to act as a flight crew member^{*}

...

1.2.1.1 ~~A~~ Until 2 November 2022, a person shall not act as a flight crew member of an aircraft unless a valid licence is held showing compliance with the specifications of this Annex and appropriate to the duties to be performed by that person. The licence shall have been issued by the State of Registry of that aircraft or by any other Contracting State and rendered valid by the State of Registry of that aircraft.

~~1.2.1.1~~ As of 3 November 2022, a person shall not act as a flight crew member of an aircraft or as a remote flight crew member of a remotely piloted aircraft system (RPAS) unless a valid licence is held showing compliance with the specifications of this Annex and appropriate to the duties to be performed by that person. ~~The licence shall have been issued by the State of Registry of that aircraft or by any other Contracting State and rendered valid by the State of Registry of that aircraft.~~

~~1.2.1.2~~ A person shall not act as a flight crew member of an aircraft unless a valid licence is held showing compliance with the specifications of this Annex and appropriate to the duties to be performed by that person. ~~The~~ As of 3 November 2022, the flight crew member licence shall have been issued by the State of Registry of that aircraft or by any other Contracting State and rendered valid by the State of Registry of that aircraft.

1.2.1.3 As of 3 November 2022, the remote pilot licence shall have been issued by the Licensing Authority of the State of the Operator of the remotely piloted aircraft system (RPAS) or by any other Contracting State and rendered valid by the Licensing Authority of the State of the Operator of the RPAS.

1.2.1.4 As of 3 November 2022, remote pilots shall carry their appropriate licence while engaged in international air operations.

Note.— Article 29 of the Convention on International Civil Aviation requires that the flight crew members carry their appropriate licences on board every aircraft engaged in international air navigation.

...

1.2.4 Medical fitness

...

1.2.4.4 Until 2 November 2022, ~~except~~ ~~Except~~ as provided in 1.2.5.2.6, flight crew members or air traffic controllers shall not exercise the privileges of their licence unless they hold a current Medical Assessment appropriate to the licence.

1.2.4.4 As of 3 November 2022, ~~except~~ ~~Except~~ as provided in 1.2.5.2.6, flight crew members, ~~remote flight crew members~~ or air traffic controllers shall not exercise the privileges of their licence unless they hold a current Medical Assessment appropriate to the licence.

...

^{*} As of 3 November 2022, section 1.2.1 will be titled *Authority to act as a flight crew member or a remote flight crew member*.

1.2.5 Validity of licences

1.2.5.1.2 A Contracting State, having issued a licence, shall ensure that other Contracting States are enabled to be satisfied as to the validity of the licence.

Note 1.— Until 2 November 2022, the ~~The~~ maintenance of competency of flight crew members, engaged in commercial air transport operations, may be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with Annex 6.

Note 1.— As of 3 November 2022, the ~~The~~ maintenance of competency of flight crew and remote flight crew members, engaged in commercial air transport operations, may be satisfactorily established by demonstration of skill during proficiency flight checks completed in accordance with Annex 6.

Note 2.— Until 2 November 2022, maintenance ~~Maintenance~~ of competency may be satisfactorily recorded in the operator's records, or in the flight crew member's personal log book or licence.

Note 2.— As of 3 November 2022, maintenance ~~Maintenance~~ of competency may be satisfactorily recorded in the operator's records, or in the flight crew or the remote flight crew member's personal log book or licence.

Note 3.— Until 2 November 2022, flight ~~Flight~~ crew members may, to the extent deemed feasible by the State of Registry, demonstrate their continuing competency in flight simulation training devices approved by that State.

Note 3.— As of 3 November 2022, flight ~~Flight~~ crew and remote flight crew members may, to the extent deemed feasible by the State of Registry, or Licensing Authority of the State of the operator, respectively, demonstrate their continuing competency in flight simulation training devices approved by that State.

...

1.2.5.2 Except as provided in 1.2.5.2.1, 1.2.5.2.2, 1.2.5.2.3, 1.2.5.2.4, 1.2.5.2.5 and 1.2.5.2.6, a Medical Assessment issued in accordance with 1.2.4.6 and 1.2.4.7 shall be valid from the date of the medical examination for a period not greater than:

60 months for the private pilot licence — aeroplane, airship, helicopter and powered-lift;

12 months for the commercial pilot licence — aeroplane, airship, helicopter and powered-lift;

12 months for the multi-crew pilot licence — aeroplane;

12 months for the airline transport pilot licence — aeroplane, helicopter and powered-lift;

48 months for the remote pilot licence — aeroplane, airship, glider, rotorcraft, powered-lift or free balloon (applicable from 3 November 2022);

...

1.2.5.2.4 Until 2 November 2022, when ~~When~~ the holders of private pilot licences — aeroplane, airship, helicopter and powered-lift, free balloon pilot licences, glider pilot licences and air traffic controller

licences have passed their 40th birthday, the period of validity specified in 1.2.5.2 shall be reduced to 24 months.

1.2.5.2.4 As of 3 November 2022, when ~~When~~ the holders of private pilot licences — aeroplane, airship, helicopter and powered-lift, remote pilot licences — aeroplane, airship, glider, rotorcraft, powered-lift or free balloon, free balloon pilot licences, glider pilot licences and air traffic controller licences have passed their 40th birthday, the period of validity specified in 1.2.5.2 shall be reduced to 24 months.

1.2.5.2.5 **Recommendation.**— *Until 2 November 2022, when ~~When~~ the holders of private pilot licences — aeroplane, airship, helicopter and powered-lift, free balloon pilot licences, glider pilot licences and air traffic controller licences have passed their 50th birthday, the period of validity specified in 1.2.5.2 should be further reduced to 12 months.*

Note.— *The periods of validity listed above are based on the age of the applicant at the time of undergoing the medical examination.*

1.2.5.2.5 **Recommendation.**— *As of 3 November 2022, when ~~When~~ the holders of private pilot licences — aeroplane, airship, helicopter and powered-lift, remote pilot licenses — aeroplane, airship, glider, rotorcraft, powered-lift or free balloon, free balloon pilot licences, glider pilot licences and air traffic controller licences have passed their 50th birthday, the period of validity specified in 1.2.5.2 should be further reduced to 12 months.*

Note.— *The periods of validity listed above are based on the age of the applicant at the time of undergoing the medical examination.*

1.2.5.2.6 *Circumstances in which a medical examination may be deferred.* The prescribed re-examination of a licence holder operating in an area distant from designated medical examination facilities may be deferred at the discretion of the Licensing Authority, provided that such deferment shall only be made as an exception and shall not exceed:

- a) a single period of six months in the case of a flight crew member of an aircraft engaged in non-commercial operations;
- b) two consecutive periods each of three months in the case of a flight crew member of an aircraft engaged in commercial operations provided that in each case a favourable medical report is obtained after examination by a designated medical examiner of the area concerned, or, in cases where such a designated medical examiner is not available, by a physician legally qualified to practise medicine in that area. A report of the medical examination shall be sent to the Licensing Authority where the licence was issued;
- c) in the case of a private pilot, a single period not exceeding 24 months where the medical examination is carried out by an examiner designated under 1.2.4.5 by the Contracting State in which the applicant is temporarily located. A report of the medical examination shall be sent to the Licensing Authority where the licence was issued-;
- d) as of 3 November 2022, two consecutive periods each of three months in the case of a remote flight crew member.

...

1.2.8.4 ~~Until 2 November 2022, competency-based~~ ~~Competency-based~~ approved training for aircraft maintenance personnel shall be conducted within an approved training organization.

Note.— A comprehensive training scheme for the aircraft maintenance (technician/engineer/mechanic) licence, including the various levels of competency, is contained in the Procedures for Air Navigation Services — Training (Doc 9868, PANS-TRG).

1.2.8.4 As of 3 November 2022, competency-based ~~Competency-based~~ approved training for aircraft and RPAS maintenance personnel shall be conducted within an approved training organization.

Note.— A comprehensive training scheme for the aircraft maintenance (technician/engineer/mechanic) licence, including the various levels of competency, is contained in the Procedures for Air Navigation Services — Training (Doc 9868, PANS-TRG).

1.2.8.5 As of 3 November 2022, competency-based approved training for remote flight crew shall be conducted within an approved training organization.

1.2.9 Language proficiency

1.2.9.1 ~~Until 2 November 2022, aeroplane, Aeroplane,~~ airship, helicopter and powered-lift pilots, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the language used for radiotelephony communications to the level specified in the language proficiency requirements in Appendix 1.

1.2.9.1 As of 3 November 2022, aeroplane, ~~Aeroplane,~~ airship, helicopter and powered-lift pilots, aeroplane, airship, glider, rotorcraft, powered-lift or free balloon remote pilots, air traffic controllers and aeronautical station operators shall demonstrate the ability to speak and understand the language used for radiotelephony communications to the level specified in the language proficiency requirements in Appendix 1.

...

1.2.9.5 ~~Until 2 November 2022, the~~ ~~The~~ language proficiency of aeroplane, airship, helicopter and powered-lift pilots, air traffic controllers and aeronautical station operators who demonstrate proficiency below the Expert Level (Level 6) shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level.

1.2.9.5 As of 3 November 2022, the ~~The~~ language proficiency of aeroplane, airship, helicopter and powered-lift pilots, ~~aeroplane, airship, gliders, rotorcraft, powered-lift or free balloon remote pilots,~~ air traffic controllers and aeronautical station operators who demonstrate proficiency below the Expert Level (Level 6) shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level.

...

1.2.9.6 **Recommendation.—** *Until 2 November 2022, the* ~~The~~ *language proficiency of aeroplane, airship, helicopter and powered-lift pilots, flight navigators required to use the radiotelephone aboard an aircraft, air traffic controllers and aeronautical station operators who demonstrate proficiency below the Expert Level (Level 6) should be formally evaluated at intervals in accordance with an individual's*

demonstrated proficiency level, as follows:

- a) those demonstrating language proficiency at the Operational Level (Level 4) should be evaluated at least once every three years; and*
- b) those demonstrating language proficiency at the Extended Level (Level 5) should be evaluated at least once every six years.*

Note 1.— Formal evaluation is not required for applicants who demonstrate expert language proficiency, e.g. native and very proficient non-native speakers with a dialect or accent intelligible to the international aeronautical community.

Note 2.— The provisions of 1.2.9 refer to Annex 10, Volume II, Chapter 5, whereby the language used for radiotelephony communications may be the language normally used by the station on the ground or English. In practice, therefore, there will be situations whereby flight crew members will only need to speak the language normally used by the station on the ground.

1.2.9.6 Recommendation.— *As of 3 November 2022, the ~~The~~ language proficiency of aeroplane, airship, helicopter and powered-lift pilots, aeroplane, airship, gliders, rotorcraft, powered-lift or free balloon remote pilots, flight navigators required to use the radiotelephone aboard an aircraft, air traffic controllers and aeronautical station operators who demonstrate proficiency below the Expert Level (Level 6) should be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level, as follows:*

- a) those demonstrating language proficiency at the Operational Level (Level 4) should be evaluated at least once every three years; and*
- b) those demonstrating language proficiency at the Extended Level (Level 5) should be evaluated at least once every six years.*

Note 1.— Formal evaluation is not required for applicants who demonstrate expert language proficiency, e.g. native and very proficient non-native speakers with a dialect or accent intelligible to the international aeronautical community.

Note 2.— The provisions of 1.2.9 refer to Annex 10, Volume II, Chapter 5, whereby the language used for radiotelephony communications may be the language normally used by the station on the ground or English. In practice, therefore, there will be situations whereby flight crew members, remote flight crew members will only need to speak the language normally used by the station on the ground.

CHAPTER 2. LICENCES AND RATINGS FOR PILOTS*

A. Licences and ratings for pilots

2.1 General rules concerning pilot licences and ratings

2.1.1 General licensing specifications

...

2.1.3.2 Type ratings shall be established for:

...

Note 1.— Where a common type rating is established, it ~~shall~~ will be only for aircraft with similar characteristics in terms of operating procedures, systems and handling.

Note 2.— Requirements for class and type ratings for gliders and free balloons have not been determined.

...

* As of 3 November 2022, Chapter 2 will be titled *Chapter 2. Licences and Ratings for Pilots and Remote Pilots*.

Editorial note.— Insert new Section B after paragraph 2.10.2.2 as follows:

B. Licences and ratings for remote pilots

Applicable as of 3 November 2022

2.11 General rules concerning remote pilot licences and ratings

Note.— The provisions of Chapter 2, Subsection B are for international instrument flight rules (IFR) operations of remotely piloted aircraft systems (RPAS).

2.11.1 General licensing specifications

2.11.1.1 A person shall not act either as remote pilot-in-command or as remote co-pilot of an RPA in any of the following RPA categories unless that person is the holder of a remote pilot licence issued in accordance with the provisions of this Chapter:

- aeroplane
- airship
- glider
- rotorcraft
- powered-lift
- free balloon.

2.11.1.2 The category of remotely piloted aircraft (RPA) shall be endorsed as a category rating on the remote pilot licence.

2.11.1.3 An applicant shall, before being issued with any remote pilot licence or rating, meet such requirements in respect of age, experience, flight instruction, competencies and medical fitness, as are specified for that remote pilot licence or rating.

2.11.1.4 An applicant for any remote pilot licence or rating shall demonstrate, in a manner determined by the Licensing Authority, such requirements for knowledge and skill as are specified for that remote pilot licence or rating.

2.11.2 Category ratings

2.11.2.1 When established, category ratings shall be for categories of RPA listed in 2.11.1.1.

2.11.2.2 The holder of a remote pilot licence seeking additional category ratings to be added to the existing licence shall meet the requirements of this Annex regarding RPAS appropriate to the privileges for which the category rating is sought.

2.11.3 Class and type ratings

2.11.3.1 A class rating shall be established for RPA and associated RPS certificated for single-remote pilot operation which have comparable handling, performance and characteristics unless a type rating is considered necessary by the Licensing Authority.

2.11.3.2 A type rating shall be established for RPA and associated RPS certificated for operation with a minimum crew of at least two remote pilots or when considered necessary by the Licensing Authority.

Note.— Where a common type rating is established, it will be only for RPA with similar characteristics in terms of operating procedures, systems and handling.

2.11.3.3 When an applicant demonstrates competencies for the initial issue of a remote pilot licence, the category and the ratings appropriate to the class or type of RPA and associated RPS used in the demonstration shall be entered on that remote pilot licence.

2.11.3.4 **Recommendation.**— *The levels of performance to be achieved to operate the class or type of remotely piloted aircraft for which the ratings are issued should be publicly available.*

2.11.4 Circumstances in which class and type ratings are required

2.11.4.1 A Contracting State having issued a remote pilot licence shall not permit the holder of such remote pilot licence to act either as remote pilot-in-command or as remote co-pilot of an RPA and associated RPS unless the holder has received authorization as follows:

- a) the appropriate class rating specified in 2.11.3.1; or
- b) a type rating when required in accordance with the provisions of 2.11.3.2.

2.11.4.1.1 When a type rating is issued limiting the privileges to act as remote co-pilot, or limiting the privileges to act as remote pilot only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

2.11.4.1.2 When a class rating is issued limiting the privileges to act as remote pilot only during the cruise phase of the flight, such limitation shall be endorsed on the rating.

2.11.4.2 For the purpose of training, testing, or specific special purpose non-revenue flights, special authorization may be provided in writing to the remote pilot licence holder by the Licensing Authority in place of issuing the class or type rating in accordance with 2.11.4.1. This authorization shall be limited in validity to the time needed to complete the specific flight.

2.11.5 Requirements for the issue of class and type ratings

2.11.5.1 Class rating

The applicant shall have demonstrated the competencies required for the safe operations of an RPA of the class for which the rating is sought.

2.11.5.2 Type rating as required by 2.11.3.2

The applicant shall have:

- a) gained, under appropriate supervision, experience in the applicable type of RPA and associated RPS and/or flight simulation training device (FSTD) in the following:
 - normal flight procedures and manoeuvres during all phases of flight;
 - abnormal and emergency procedures and manoeuvres in the event of failures and malfunctions of equipment, such as engine, C2 Link, systems and airframe;
 - instrument procedures, including instrument approach, missed approach and landing procedures under normal, abnormal and emergency conditions, including simulated engine failure; and
 - for the issue of an aeroplane category type rating, upset prevention and recovery training.

Note 1.— Procedures for upset prevention and recovery training are contained in the Procedures for Air Navigation Services —Training (PANS-TRG, Doc 9868).

Note 2.— Guidance on upset prevention and recovery training is contained in the Manual on Aeroplane Upset Prevention and Recovery Training (Doc 10011).

Note 3.— The Manual of Criteria for the Qualification of Flight Simulation Training Devices (Doc 9625) provides guidance on the approval of flight simulation training devices for upset prevention and recovery training.

Note 4.— The aeroplane upset prevention and recovery training may be integrated in the type rating programme or be conducted immediately after, as an additional module.

- procedures for crew incapacitation and crew coordination including allocation of remote pilot tasks; crew cooperation and use of checklists;

Note.— Attention is called to 2.11.7.1 on the qualifications required for remote pilots giving RPAS training.

- b) demonstrated the competencies required for the safe operation of the applicable type of RPA and associated RPS and demonstrated C2 Link management skills, relevant to the duties of a remote pilot-in-command or a remote co-pilot as applicable.

Note.— See the Manual of Procedures for Establishment and Management of a State's Personnel Licensing System (Doc 9379) for guidance of a general nature on cross-crew qualification and cross-credit.

2.11.6 Use of a flight simulation training device for acquisition of experience and demonstration of competencies

The use of a flight simulation training device for acquiring the experience or performing any manoeuvre required during the demonstration of competencies for the issue of a remote pilot licence or rating, shall be approved by the Licensing Authority, which shall ensure that the flight simulation training device used is appropriate to the task.

2.11.7 Circumstances in which authorization to conduct remote pilot licence training is required

2.11.7.1 A Contracting State, having issued a remote pilot licence, shall not permit the holder thereof to carry out remote pilot licence training required for the issue of a remote pilot licence or rating, unless such holder has received proper authorization from such Contracting State. Proper authorization shall comprise:

- a) an RPAS instructor rating on the holder's remote pilot licence; or
- b) the authority to act as an agent of an approved training organization authorized by the Licensing Authority to carry out remote pilot licence training; or
- c) a specific authorization granted by the Contracting State which issued the remote pilot licence.

2.11.7.2 A Contracting State shall not permit a person to carry out remote pilot licence training on a flight simulation training device required for the issue of a remote pilot licence or rating unless such person holds or has held an appropriate remote pilot licence or has appropriate RPAS training and flight experience and has received proper authorization from such Contracting State.

2.11.8 Crediting of RPAS flight time

2.11.8.1 A student remote pilot shall be entitled to be credited in full with all solo and dual instruction RPAS flight time towards the total flight time required for the initial issue of a remote pilot licence.

2.11.8.2 The holder of a remote pilot licence shall be entitled to be credited in full with all dual instruction RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade.

2.11.8.3 The holder of a remote pilot licence shall be entitled to be credited in full with all solo or dual instruction RPAS flight time, in a new category of RPA or for obtaining a new rating, towards the total RPAS flight time required for that rating.

2.11.8.4 The holder of a remote pilot licence, when acting as remote co-pilot of an RPA-certificated for operation by a single remote pilot but required by a Contracting State to be operated with a remote co-pilot, shall be entitled to be credited with not more than 50 per cent of the remote co-pilot RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade. The Contracting State may authorize that RPAS flight time be credited in full towards the total RPAS flight time required if the RPAS is equipped to be operated by a remote co-pilot and is operated in a multi-crew operation.

2.11.8.5 The holder of a remote pilot licence, when acting as remote co-pilot of an RPA certificated to be operated with a remote co-pilot, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade.

2.11.8.6 The holder of a remote pilot licence, when acting as remote pilot-in-command under supervision, shall be entitled to be credited in full with this RPAS flight time towards the total RPAS flight time required for a remote pilot-in-command upgrade.

2.11.8.7 **Recommendation.**— *When applying for a new rating, the holder of a remote pilot licence should be entitled to be credited with RPAS flight time experience as a remote pilot of RPA. The Licensing Authority should determine whether such experience is acceptable and, if so, the extent to which the experience requirements for the issue of a rating can be reduced accordingly.*

Note.— *The total RPAS flight time required is derived from the approved competency-based training programme.*

2.11.9 Limitation of privileges of remote pilots who attain their 60th birthday and curtailment of privileges of remote pilots who attain their 65th birthday

A Contracting State, having issued remote pilot licences, shall not permit the holders thereof to act as pilot of an RPAS engaged in international commercial air transport operations if the licence holders have attained their 60th birthday or, in the case of operations with more than one pilot, their 65th birthday.

2.12 Student remote pilot

2.12.1 A student remote pilot shall meet requirements prescribed by the Contracting State concerned. In prescribing such requirements, Contracting States shall ensure that the privileges granted would not permit student remote pilots to constitute a hazard to air navigation.

2.12.2 A student remote pilot shall not fly an RPA solo unless under the supervision of, or with the authority of, an authorized RPAS instructor.

2.12.2.1 A student remote pilot shall not fly an RPA solo on international RPAS operations unless by special or general arrangement between the Contracting States concerned.

2.12.3 Medical fitness

A Contracting State shall not permit a student remote pilot to fly an RPA solo unless he/she holds a current Class 3 or a current Class 1 Medical Assessment.

Note.— *A Class 1 medical assessment may be essential for a particular individual based on their work environment and responsibilities in the context of a specific RPAS application.*

2.13 Remote pilot licence

Note.— The provisions of Chapter 2, subsection B are for international instrument flight rules (IFR) operations of remotely piloted aircraft systems (RPAS).

2.13.1 General requirements for the issue of the remote pilot licence

2.13.1.1 Age

The applicant shall not be less than 18 years of age.

2.13.1.2 Knowledge

The applicant shall demonstrate a level of knowledge appropriate to the privileges granted to the holder of a remote pilot licence and appropriate to the category of RPA and associated RPS intended to be included in the remote pilot licence, in at least the following subjects:

Air law

- a) rules and regulations relevant to the holder of a remote pilot licence; rules of the air; appropriate air traffic services practices and procedures;
- b) rules and regulations relevant to flight under IFR; related air traffic services practices and procedures;

General RPAS knowledge

- c) principles of operation and the functioning of engines, systems and instruments;
- d) operating limitations of the relevant category of RPA and engines; relevant operational information from the flight manual or other appropriate document;
- e) use and serviceability checks of equipment and systems of appropriate RPA;
- f) maintenance procedures for airframes, systems and engines of appropriate RPA;
- g) for rotorcraft and powered-lifts, transmission (power trains) where applicable;
- h) use, limitation and serviceability of avionics, electronic devices and instruments necessary for the control and navigation of an RPA under IFR and in instrument meteorological conditions;
- i) flight instruments; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;
- j) for airships, physical properties and practical application of gases;

k) RPS general knowledge:

- 1) principles of operation and function of systems and instruments;
- 2) use and serviceability checks of equipment and systems of appropriate RPS;
- 3) procedures in the event of malfunctions;

l) C2 Link general knowledge:

- 1) different types of C2 Links and their operating characteristics and limitations;
- 2) use and serviceability checks of C2 Link systems;
- 3) procedures in the event of C2 Link malfunction;

m) detect and avoid capabilities for RPAS;

Flight performance, planning and loading

- n) effects of loading and mass distribution on RPA handling, flight characteristics and performance; mass and balance calculations;
- o) use and practical application of take-off, landing and other performance data;
- p) pre-flight and en-route flight planning appropriate to RPAS operations under IFR; preparation and submission of air traffic services flight plans under IFR; appropriate air traffic services procedures; altimeter setting procedures;
- q) in the case of airships, rotorcraft and powered-lifts, effects of external loading on handling;

Human performance

- r) human performance relevant to RPAS and instrument flight, including principles of threat and error management;

Note.— Guidance material to design training programmes on human performance, including threat and error management, can be found in the Human Factors Training Manual (Doc 9683).

Meteorology

- s) interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
- t) aeronautical meteorology; climatology of relevant areas with respect to the elements having an effect on aviation; the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing

conditions;

- u) causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;
- v) in the case of rotorcraft and powered-lifts, effects of rotor icing;
- w) in the case of high altitude operations, practical high altitude meteorology, including interpretation and use of weathers reports, charts and forecasts; jetstreams;

Navigation

- x) air navigation, including the use of aeronautical charts, instruments and navigation aids; an understanding of the principles and characteristics of appropriate navigation systems; operation of RPAS equipment;
- y) use, limitation and serviceability of avionics and instruments necessary for control and navigation;
- z) use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of radio navigation aids;
- aa) principles and characteristics of self-contained and external-referenced navigation systems; operation of RPAS equipment;

Operational procedures

- bb) application of threat and error management to operational performance;

Note.— Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868) and in the Human Factors Training Manual (Doc 9683).

- cc) interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations and instrument procedure charts for departure, en-route, descent and approach;
- dd) altimeter setting procedures;
- ee) appropriate precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria;
- ff) operational procedures for carriage of freight; potential hazards associated with dangerous goods and their management;
- gg) requirements and practices for safety briefings to remote flight crew members
- hh) in the case of rotorcraft, and if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in visual meteorological conditions (VMC);

- ii) operational procedures for handovers and coordination;
- jj) operational procedures for normal and abnormal C2 Link operations;

Principles of flight

- kk) principles of flight; and

Radiotelephony

- ll) communication procedures and phraseology; action to be taken in case of communication failure.

2.13.1.3 Skill

2.13.1.3.1 The applicant shall have demonstrated all the competencies of the adapted competency model approved by the Licensing Authority at the level required, to act as remote pilot-in-command of an RPAS operation within the appropriate category of RPA and associated RPS.

Note.— Guidance material on the ICAO competency framework and on the methodology to adapt the ICAO competency framework for remote pilots and develop the related competency-based training programme is found in the Procedures for Air Navigation Services — Training (PANS-TRG, Doc 9868).

2.13.1.3.2 If the privileges of the remote pilot are to be exercised on a multi-engined RPA, the applicant shall have demonstrated the ability to operate under IFR with degraded propulsion capabilities.

2.13.1.4 Medical fitness

The applicant shall hold a current Class 3 Medical Assessment or a current Class 1 Medical Assessment.

Note.— A Class 1 Medical Assessment may be essential for a particular individual based on their work environment and responsibilities in the context of a specific RPAS application.

*2.13.2 Privileges of the holder of the remote pilot licence
and the conditions to be observed in exercising such privileges*

2.13.2.1 Subject to compliance with the requirements specified in 1.2.5, 1.2.6, 1.2.7.1, 1.2.9 and 2.11, the privileges of the holder of a remote pilot licence shall be:

- a) to act as remote pilot-in-command of an RPA and associated RPS, certificated for remote single-pilot operation;
- b) to act as remote co-pilot of an RPA and associated RPS, required to be operated with a remote co-pilot;

- c) to act as a remote pilot-in-command of an RPA and the associated RPS, required to be operated with a remote co-pilot; and
- d) to act either as remote pilot-in-command or as remote co-pilot of an RPAS under IFR.

2.13.2.2 Before exercising the privileges at night, the remote pilot licence holder shall have received dual instruction in an RPA and associated RPS in night flying, including take-off, landing and navigation.

Note.— Certain privileges of the remote pilot licence are curtailed by 2.11.9 for remote pilot licence holders when they attain their 60th and 65th birthdays.

2.13.3 Specific requirements for the issue of remote pilot licence

2.13.3.1 Experience

2.13.3.1.1 The applicant shall have gained experience during training in operating the RPA and associated RPS to successfully demonstrate the competencies required in 2.13.1.3.

2.13.3.2 Remote pilot licence training

2.13.3.2.1 In order to meet the requirements of the remote pilot licence, the applicant shall have completed an approved training course. The training shall be competency-based and, if applicable, conducted in a multi-crew operational environment.

2.13.3.2.2 During the training, the applicant shall have acquired the competencies and underpinning skills required for performing as a remote pilot of an RPA certificated for operation under IFR.

2.13.3.2.3 The applicant shall have received dual remote pilot licence training in an RPA and associated RPS, sought from an authorized RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in all phases of flight and the entire operating envelope of an RPAS, including abnormal and emergency conditions, upset prevention and recovery training for the categories concerned, as well as IFR operations.

2.13.3.2.4 If the privileges of the remote pilot are to be exercised on a multi-engined RPA, the applicant shall have received dual instrument remote pilot licence training in a multi-engined RPA within the appropriate category from an authorized RPAS instructor. The RPAS instructor shall ensure that the applicant has operational experience in the operation of the RPA within the appropriate category with engines inoperative or simulated inoperative.

2.14 RPAS instructor rating

2.14.1 Requirements for the issue of the rating

2.14.1.1 Knowledge

2.14.1.1.1 The applicant shall demonstrate the ability to effectively assess trainees against the adapted competency model used in the approved training programme.

2.14.1.1.2 The applicant shall successfully complete the training and meet the qualifications of an approved training organization appropriate to the delivery of competency-based training programmes.

2.14.1.1.3 The RPAS instructor training programme shall focus on the development of competence in the following specific areas:

- a) the adapted competency model of the remote pilot training programme according to the defined grading system used by the RPAS operator or approved training organization;
- b) in accordance with the assessment and grading system of the RPAS operator or approved training organization, making assessments by observing behaviours; gathering objective evidence regarding the observable behaviours of the adapted competency model used;
- c) recognizing and highlighting performance that meets competency standards;
- d) determining root causes for deviations below the expected standards of performance; and
- e) identifying situations that could result in unacceptable reductions in safety margins.

2.14.1.1.4 The applicant shall have met the competency requirements for the issue of a remote pilot licence as appropriate to the category of RPA and associated RPS.

2.14.1.1.5 In addition, the applicant shall have demonstrated a level of competency appropriate to the privileges granted to the holder of an RPAS instructor rating, in at least the following areas:

- a) techniques of applied instruction;
- b) assessment of student performance in those subjects in which ground instruction is given;
- c) the learning process;
- d) elements of effective teaching;
- e) competency-based training principles, including student assessments;
- f) evaluation of the training programme effectiveness;
- g) lesson planning;
- h) classroom instructional techniques;

- i) use of training aids, including flight simulation training devices as appropriate;
- j) analysis and correction of student errors;
- k) human performance relevant to RPAS, instrument flight and remote pilot licence training, including principles of threat and error management; and

Note.— Guidance material to design training programmes on human performance, including threat and error management, can be found in the Human Factors Training Manual (Doc 9683).

- l) hazards involved in simulating system failures and malfunctions in the aircraft.

2.14.1.2 Skill

2.14.1.2.1 The applicant shall have successfully performed a formal competency assessment, prior to conducting instruction and assessment within a competency-based training programme.

2.14.1.2.2 The competency assessment shall be conducted during a practical training session in the category of RPA and associated RPS for which RPAS instructor privileges are sought, including pre-flight, post-flight and ground instruction as appropriate.

2.14.1.2.3 The competency assessment shall be conducted by a person authorized by the Licensing Authority.

2.14.1.3 Experience

2.14.1.3.1 The applicant shall have met the requirements for the issue of a remote pilot licence, shall maintain competencies and meet the recent experience requirements for the licence.

2.14.1.3.2 The applicant shall have sufficient training and experience to attain the required level of proficiency in all of the required tasks, manoeuvres, operations and principles, and methods of instruction relevant to 2.13.3.2.

2.14.1.4 Remote pilot licence training

The applicant shall, under the supervision of an RPAS instructor authorized by the Licensing Authority for that purpose:

- a) have received training in RPAS instructional techniques including demonstration, student practices, recognition and correction of common student errors; and
- b) have practiced instructional techniques in those flight manoeuvres and procedures in which it is intended to provide remote pilot licence training.

2.14.2 Privileges of the holder of the rating and the conditions to be observed
in exercising such privileges

2.14.2.1 Subject to compliance with the requirements specified in 1.2.5 and 2.11, the privileges of the holder of an RPAS instructor rating shall be:

- a) to supervise solo flights by student remote pilots; and
- b) to carry out remote pilot licence training for the issue of a remote pilot licence and an RPAS instructor rating provided that the RPAS instructor:
 - 1) holds at least the remote pilot licence and rating for which instruction is being given, in the appropriate RPA category and associated RPS;
 - 2) holds the remote pilot licence and rating necessary to act as the remote pilot-in-command of the RPA category and associated RPS on which the instruction is given; and
 - 3) has the RPAS instructor privileges granted endorsed on the remote pilot licence.

2.14.2.2 The applicant, in order to carry out remote pilot licence training in a multi-crew operational environment, shall have also met all the instructor qualification requirements.

End of new Section B

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**CHAPTER 4. LICENCES AND RATINGS FOR PERSONNEL
OTHER THAN FLIGHT CREW MEMBERS**

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4.2.2 Privileges of the holder of the licence
and the conditions to be observed in exercising such privileges

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4.2.3 Privileges of the holder of the licence and the conditions
to be observed in exercising such privileges for RPAS
Applicable as of 3 November 2022

4.2.3.1 The privileges of the holder of an aircraft maintenance licence specified in 4.2.2.1 shall be exercised only in respect of such:

- a) RPA or RPS as are entered on the licence either specifically or under broad categories; or
- b) RPAS and associated C2 Link as are entered on the licence either specifically or under broad categories after appropriate knowledge and practical training on maintenance of the RPAS and associated C2 Link system.

4.2.3.2 When a Contracting State authorizes an approved maintenance organization to appoint non-licensed personnel to exercise the privileges of 4.2.3, the person appointed shall meet the requirements specified in 4.2.1.

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4.4 Air traffic controller licence

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4.4.1.2 Knowledge

The applicant shall have demonstrated a level of knowledge appropriate to the holder of an air traffic controller licence, in at least the following subjects:

Air law

- a) rules and regulations relevant to the air traffic controller;

Air traffic control equipment

- b) principles, use and limitations of equipment used in air traffic control;

General knowledge

- c) until 2 November 2022, principles of flight; principles of operation and functioning of aircraft, engines and systems; aircraft performance relevant to air traffic control operations;
- c) as of 3 November 2022, principles of flight, principles of operation and functioning of aircraft and RPAS, engines and systems; aircraft performance relevant to air traffic control operations;

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4.8 Aeronautical meteorological personnel

Note.— The requirements for ~~training and~~ qualifications, competencies, education and training for all aeronautical meteorological personnel are the responsibility of the World Meteorological Organization (WMO) in accordance with the Working Arrangements between the International Civil Aviation Organization and the World Meteorological Organization (Doc 7475). The requirements can be found in ~~WMO Document 1083 — Manual on the implementation of education and training standards in Meteorology and Hydrology, Volume I — Meteorology~~ the Technical Regulations (WMO-No. 49), Volume I — General Meteorological Standards and Recommended Practices, Part V — Qualifications and Competencies of Personnel Involved in the Provision of Meteorological (Weather and Climate) and Hydrological Services, Part VI — Education and Training of Meteorological Personnel, and Appendix A — Basic Instruction Packages.

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CHAPTER 6. MEDICAL PROVISIONS FOR LICENSING

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6.1 Medical Assessments — General

6.1.1 Classes of Medical Assessment

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c) Class 3 Medical Assessment;

applies to applicants for, and holders of:

- air traffic controller licences
- remote pilot licences (applicable as of 3 November 2022).

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6.5 Class 3 Medical Assessment

6.5.1 Assessment issue and renewal

6.5.1.1 Until 2 November 2022, an ~~An~~ applicant for an air traffic controller licence shall undergo an initial medical examination for the issue of a Class 3 Medical Assessment.

6.5.1.1 As of 3 November 2022, an ~~An~~ applicant for an air traffic controller licence or remote pilot licence shall undergo an initial medical examination for the issue of a Class 3 Medical Assessment.

6.5.1.2 Until 2 November 2022, except ~~Except~~ where otherwise stated in this section, holders of air traffic controller licences shall have their Class 3 Medical Assessments renewed at intervals not exceeding those specified in 1.2.5.2.

6.5.1.2 As of 3 November 2022, except ~~Except~~ where otherwise stated in this section, holders of air traffic controller licences or remote pilot licences shall have their Class 3 Medical Assessments renewed at intervals not exceeding those specified in 1.2.5.2.

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6.5.3 Visual requirements

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6.5.3.4 The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by 6.5.3.2, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with 6.5.3.2; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements.

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Note 2.— Until 2 November 2022, an ~~An~~ applicant who needs near correction to meet the requirement will require “look-over”, bifocal or perhaps multi-focal lenses in order to read radar screens, visual displays and written or printed material and also to make use of distant vision, through the windows, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for certain air traffic control duties. However, it should be realized that single-vision near correction significantly reduces distant visual acuity.

Note 2.— As of 3 November 2022, an ~~An~~ applicant who needs near correction to meet the requirement will require “look-over”, bifocal or perhaps multi-focal lenses in order to read radar screens, visual displays and written or printed material and also to make use of distant vision, through the windows, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for certain air traffic control or remote pilot duties. However, it should be realized that single-vision near correction significantly reduces distant visual acuity.

Note 3.— Until 2 November 2022, whenever ~~Whenever~~ there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the air traffic control duties the applicant is likely to perform.

Note 3.— As of 3 November 2022, whenever ~~Whenever~~ there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the air traffic control or remote pilot duties the applicant is likely to perform.

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6.5.4 Hearing requirements

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6.5.4.1.1 Until 2 November 2022, an ~~An~~ applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a typical air traffic control working environment.

6.5.4.1.1 As of 3 November 2022, an ~~An~~ applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a typical air traffic control or remote pilot working environment.

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