



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  
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Tel.: +1 (514) 954-6711

Ref.: AN 13/1.1-12/19

10 April 2012

**Subject:** Adoption of Amendment 43 to Annex 2

**Action Required:** a) Notify any disapproval before 16 July 2012; b) Notify any differences and compliance before 15 October 2012

Sir/Madam,

1. I have the honour to inform you that Amendment 43 to the *International Standards, Rules of the Air* (Annex 2 to the Convention on International Civil Aviation) was adopted by the Council at the fifth meeting of its 195th Session on 7 March 2012. 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>).

2. When adopting the amendment, the Council prescribed 16 July 2012 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 43, to the extent it becomes effective, will be applicable on 15 November 2012.

3. Amendment 43 arises from:

- a) the Secretariat with the assistance of the Separation and Airspace Safety Panel (SASP) on speed variations; and
- b) the Secretariat with the assistance of the Unmanned Aircraft Systems Study Group (UASSG) on remotely piloted aircraft (RPA).

The subjects are given in the amendment to the Foreword of Annex 2, Tenth Edition, a copy of which is in Attachment A.

4. The amendment addresses two topics, improving air traffic control planning in oceanic and remote airspace through more accurate position reporting and estimating by flight crews and high

level requirements related to remotely piloted aircraft systems. The latter Standards, in conjunction with complementary Standards contained in State letter AN 3/1-12/9, Adoption of Amendment 6 to Annex 7, form the foundation of the complete regulatory framework that will be developed during the coming years.

5. In accordance with the decision of the 26th Session of the Assembly, I would like to bring to your attention the Organization's long-standing practice of providing documentation to States upon request. In this regard, I wish to refer you to the ICAO-NET website (<http://portal.icao.int>) where you can access all relevant documentation. The practice of dispatching printed copies of such documentation has now been discontinued.

6. In conformity with the Resolution of Adoption, may I request:

- a) that before 16 July 2012 you inform me if there is any part of the adopted Standards amendments in Amendment 43, 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 15 October 2012 you inform me of the following, using the form in Attachment C for this purpose:
  - 1) any differences that will exist on 15 November 2012 between the national regulations or practices of your Government and the provisions of the whole of Annex 2, as amended by all amendments up to and including Amendment 43, and thereafter of any further differences that may arise;
  - 2) the date or dates by which your Government will have complied with the provisions of the whole of Annex 2, as amended by all amendments up to and including Amendment 43.

7. With reference to the request in paragraph 6 a) above, it should be noted that a registration of disapproval of Amendment 43 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 6 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.

8. With reference to the request in paragraph 6 b) above, it should be also noted that the Council, at the third meeting of its 192nd Session on 4 March 2011, agreed that pending the development of a concrete policy and operational procedures governing the use of EFOD, this system be used as an alternative means for filing of differences to all Annexes, except for Annex 9 — *Facilitation* and Annex 17 — *Security — Safeguarding International Civil Aviation against Acts of Unlawful Interference*. EFOD is currently available on the USOAP restricted website (<http://www.icao.int/usoap>) which is accessible by all Member States (AN 1/1-11/28 refers) and you are invited to consider using this for notification of compliance and differences.

9. Guidance on the determination and reporting of differences is given in the Note on the Notification of Differences in Attachment D.

10. 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.

11. I would appreciate it if you would also send a copy of your notifications, referred to in paragraph 6 b) above, to the ICAO Regional Director accredited to your Government.

12. As soon as practicable after the amendment becomes effective, on 16 July 2012, replacement pages incorporating Amendment 43 will be forwarded to you.

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



Raymond Benjamin  
Secretary General

**Enclosures:**

- A — Amendment to the Foreword of Annex 2
- B — Form on notification of disapproval of all or part of Amendment 43 to Annex 2
- C — Form on notification of compliance with or differences from Annex 2
- D — Note on the Notification of Differences



ATTACHMENT A to State letter AN 13/1.1-12/19

AMENDMENT TO THE FOREWORD OF ANNEX 2, TENTH EDITION

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>
43	Secretariat; Separation and Airspace Safety Panel (SASP); Unmanned Aircraft Systems Study Group (UASSG)	Amendment to definitions; speed variations, and remotely piloted aircraft.	7 March 2012 16 July 2012 15 November 2012



ATTACHMENT B to State letter AN 13/1.1-12/19

NOTIFICATION OF DISAPPROVAL OF ALL OR PART OF  
AMENDMENT 43 TO ANNEX 2

To: The Secretary General  
International Civil Aviation Organization  
999 University Street  
Montreal, Quebec  
Canada H3C 5H7

(State) \_\_\_\_\_ hereby wishes to disapprove the following parts of  
Amendment 43 to Annex 2:

Signature \_\_\_\_\_

Date \_\_\_\_\_

*NOTES*

- 1) If you wish to disapprove all or part of Amendment 43 to Annex 2, please dispatch this notification of disapproval to reach ICAO Headquarters by 16 July 2012. 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 43, 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 2. Separate notifications on this are necessary. (See Attachment C.)
- 3) Please use extra sheets as required.

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ATTACHMENT C to State letter AN 13/1.1-12/19

**NOTIFICATION OF COMPLIANCE WITH OR DIFFERENCES  
FROM ANNEX 2  
(including all amendments up to and including Amendment 43)**

To: The Secretary General  
International Civil Aviation Organization  
999 University Street  
Montreal, Quebec  
Canada H3C 5H7

1. No differences will exist on \_\_\_\_\_ between the national regulations and/or practices of **(State)** \_\_\_\_\_ and the provisions of Annex 2, including all amendments up to and including Amendment 43.

2. The following differences will exist on \_\_\_\_\_ between the regulations and/or practices of **(State)** \_\_\_\_\_ and the provisions of Annex 2, including Amendment 43 (Please see Note 3) below.)

<b>a) Annex Provision</b> (Please give exact paragraph reference)	<b>b) Difference Category</b> (Please indicate A, B, or C)	<b>c) Details of Difference</b> (Please describe the difference clearly and concisely)	<b>d) Remarks</b> (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 2, including all amendments up to and including Amendment 43 for which differences have been notified in 2 above.

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

Signature \_\_\_\_\_

Date \_\_\_\_\_

*NOTES*

- 1) If paragraph 1 above is applicable to you, 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) Please dispatch the form to reach ICAO Headquarters by 15 October 2012.
- 3) A detailed repetition of previously notified differences, if they continue to apply, may be avoided by stating the current validity of such differences.
- 4) Guidance on the notification of differences from Annex 2 is provided in the Note on the Notification of Differences at Attachment D.
- 5) Please send a copy of this notification to the ICAO Regional Director accredited to your Government.

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**ATTACHMENT D** to State letter AN 13/1.1-12/19

**NOTE ON THE NOTIFICATION OF DIFFERENCES TO ANNEX 2  
AND FORM OF NOTIFICATION**

*(Prepared and issued in accordance with instructions of the Council)*

1. *Introduction*

1.1 The Assembly and the Council, when reviewing the notification of differences by States in compliance with Article 38 of the Convention, have repeatedly noted that the state of such reporting is not entirely satisfactory.

1.2 With a view to achieving a more comprehensive coverage, this note is issued to facilitate the determination and reporting of such differences and to state the primary purpose of such reporting.

1.3 The primary purpose of reporting of differences is to promote safety 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 ICAO Standards.

1.4 Contracting States are, therefore, requested to give particular attention to the notification before 15 October 2012 of differences with respect to Standards in Annex 2. The Council has also urged Contracting States to extend the above considerations to Recommended Practices.

1.5 Contracting States are asked to note further that it is necessary to make an explicit statement of intent to comply where such intent exists, or where such is not the intent, of the difference or differences that will exist. This statement should be made not only to the latest amendment but to the whole Annex, including the amendment.

1.6 If previous notifications have been made in respect of this Annex, detailed repetition may be avoided, if appropriate, by stating the current validity of the earlier notification. States are requested to provide updates of the differences previously notified after each amendment, as appropriate, until the difference no longer exists.

2. *Notification of differences to Annex 2, including Amendment 43*

2.1 Past experience has indicated that the reporting of differences to Annex 2 has in some instances been too extensive since some appear merely to be a different manner of expressing the same intent.

2.2 Guidance to Contracting States in the reporting of differences to Annex 2 can only be given in very general terms. Where the national regulations of States call for compliance with procedures that are not identical but essentially similar to those contained in the Annex, no difference should be reported since the details of the procedures existing are the subject of notification through the medium of aeronautical information publications. Although differences to Recommended Practices are not notifiable under Article 38 of the Convention, Contracting States are urged to notify the Organization of the differences between their national regulations and practices and any corresponding Recommended Practices contained in an Annex. States should categorize each difference notified on the basis of whether the corresponding national regulation is:

- a) ***More exacting or exceeds the ICAO Standard or Recommended Practice (SARP) (Category A)***. This category applies when the national regulation is more demanding than the corresponding SARP, or imposes an obligation within the scope of the Annex which is not covered by a SARP. This is of particular importance where a State requires a higher standard which affects the operation of aircraft of other Contracting States in and above its territory;
- b) ***Different in character or other means of compliance (Category B)\****. This category applies when the national regulation is different in character from the corresponding ICAO SARP, or when the national regulation differs in principle, type or system from the corresponding SARP, without necessarily imposing an additional obligation; and
- c) ***Less protective or partially implemented/not implemented (Category C)***. This category applies when the national regulation is less protective than the corresponding SARP; or when no national regulation has been promulgated to address the corresponding SARP, in whole or in part.

2.3 For States that have already fully reported differences from Annex 2 or have reported that no differences exist, the reporting of any further differences occasioned by the amendment should be relatively straightforward; however, attention is called to paragraph 1.5 wherein it is indicated that this statement should be not only to the latest amendment but to the whole Annex, including the amendment.

### 3. *Form of notification of differences*

3.1 Differences should be notified in the following form:

- a) ***Reference***: The number of the paragraph or subparagraph in Annex 2 as amended which contains the Standard or Recommended Practice to which the difference relates;
- b) ***Category***: Indicate the category of the difference as A, B or C in accordance with paragraph 2.2 above;
- c) ***Description of the difference***: Clearly and concisely describe the difference and its effect; and
- d) ***Remarks***: Under “Remarks” indicate reasons for the difference and intentions including any planned date for implementation.

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\*The expression “different in character or other means of compliance” in b) would be applied to a national regulation which achieves, by other means, the same objective as that of the corresponding ICAO SARPs and so cannot be classified under a) or c).

3.2 The differences notified will be recorded in a Supplement to the Annex, normally in the terms used by the Contracting State when making the notification. In the interest of making the supplement as useful as possible, please make statements as clear and concise as possible and confine remarks to essential points. Comments on implementation, in accordance with paragraph 4 b) 2) of the Resolution of Adoption, should not be combined with those concerning differences. The provision of extracts from national regulations cannot be considered as sufficient to satisfy the obligation to notify differences. General comments that do not relate to specific differences will not be published in Supplements.

— END —



**AMENDMENT NO. 43**

**TO THE**

**INTERNATIONAL STANDARDS**

**RULES OF THE AIR**

**ANNEX 2**

**TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION**

The amendment to Annex 2 contained in this document was adopted by the Council of ICAO on **7 March 2012**. 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 2012** will become effective on that date and will become applicable on **15 November 2012** as specified in the Resolution of Adoption. (State letter AN 13/1.1-12/19 refers.)

**MARCH 2012**

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**





**AMENDMENT 43 TO THE INTERNATIONAL STANDARDS****RULES OF THE AIR****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 2012 Amendment 43 to the International Standards contained in the document entitled *International Standards, Annex 2 — Rules of the Air* which for convenience is designated Annex 2 to the Convention;
2. *Prescribes* 16 July 2012 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 15 November 2012;
4. *Requests the Secretary General:*
  - a) to notify each Contracting State immediately of the above action and immediately after 16 July 2012 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 15 November 2012 between its national regulations or practices and the provisions of the Standards in the Annex as hereby amended, such notification to be made before 15 October 2012, and thereafter to notify the Organization of any further differences that arise; and
    - 2) to notify the Organization before 15 October 2012 of the date or dates by which it will have complied with the provisions of the Standards in the Annex as hereby amended;

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**NOTES ON THE PRESENTATION OF AMENDMENT 43 TO ANNEX 2**

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:

1. ~~Text to be deleted is shown with a line through it.~~ text to be deleted
2. **New text to be inserted is highlighted with grey shading.** new text to be inserted
3. ~~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 43**  
**TO THE INTERNATIONAL STANDARDS**  
**RULES OF THE AIR**  
**ANNEX 2**  
**TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION**

**CHAPTER 1. DEFINITIONS**

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*Insert new text as follows:*

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***Command and control link (C2).*** 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.

***Operator.*** A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

*Note.— In the context of remotely piloted aircraft, an aircraft operation includes the remotely piloted aircraft system.*

***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 station.*** 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.

***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.

***RPA observer.*** A trained and competent person designated by the operator who, by visual observation of the remotely piloted aircraft, assists the remote pilot in the safe conduct of the flight.

***Visual line-of-sight (VLOS) operation.*** An operation in which the remote pilot or RPA observer maintains direct unaided visual contact with the remotely piloted aircraft.

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End of new text.

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## CHAPTER 3 GENERAL RULES

### 3.1 Protection of persons and property

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#### 3.1.9 Remotely piloted aircraft

A remotely piloted aircraft shall be operated in such a manner as to minimize hazards to persons, property or other aircraft and in accordance with the conditions specified in Appendix 4.

#### 3.1.10 Unmanned free balloons

An unmanned free balloon shall be operated in such a manner as to minimize hazards to persons, property or other aircraft and in accordance with the conditions specified in Appendix 4.

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*Renumber remaining paragraphs.*

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### 3.6 Air traffic control service

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#### 3.6.2 Adherence to flight plan

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3.6.2.2 *Inadvertent changes.* In the event that a controlled flight inadvertently deviates from its current flight plan, the following action shall be taken:

- a) *Deviation from track:* if the aircraft is off track, action shall be taken forthwith to adjust the heading of the aircraft to regain track as soon as practicable.
- b) *Variation in true airspeed:* if the average true airspeed at cruising level between reporting points varies or is expected to vary by plus or minus 5 per cent of the true airspeed, from that given in the flight plan, the appropriate air traffic services unit shall be so informed.
- c) *Change in time estimate:* if the time estimate for the next applicable reporting point, flight information region boundary or destination aerodrome, whichever comes first, is found to be in error in excess of 3 minutes from that notified to air traffic services, or such other period of time as is prescribed by the appropriate ATS authority or on the basis of air navigation regional agreements, a revised estimated time shall be notified as soon as possible to the appropriate air traffic services unit.

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*Insert new text as follows:*

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#### **APPENDIX 4. REMOTELY PILOTED AIRCRAFT SYSTEMS**

*(Note.— See Chapter 3, 3.1.9 of the Annex)*

*Note.— Circ 328, Unmanned Aircraft Systems (UAS) contains explanatory information related to remotely piloted aircraft systems.*

##### **1. General operating rules**

1.1 A remotely piloted aircraft system (RPAS) engaged in international air navigation shall not be operated without appropriate authorization from the State from which the take-off of the remotely piloted aircraft (RPA) is made.

1.2 An RPA shall not be operated across the territory of another State, without special authorization issued by each State in which the flight is to operate. This authorization may be in the form of agreements between the States involved.

1.3 An RPA shall not be operated over the high seas without prior coordination with the appropriate ATS authority.

1.4 The authorization and coordination referred to in 1.2 and 1.3 shall be obtained prior to take-off if there is reasonable expectation, when planning the operation, that the aircraft may enter the airspace concerned.

1.5 An RPAS shall be operated in accordance with conditions specified by the State of Registry, the State of the Operator if different and the State(s) in which the flight is to operate.

1.6 Flight plans shall be submitted in accordance with Chapter 3 of this Annex or as otherwise mandated by the State(s) in which the flight is to operate.

1.7 RPAS shall meet the performance and equipment carriage requirements for the specific airspace in which the flight is to operate.

##### **2. Certificates and licensing**

*Note 1.— Assembly Resolution A37-15 Appendix G resolves that pending the coming into force of international Standards respecting particular categories, classes or types of aircraft, certificates issued or rendered valid, under national regulations, by the Contracting State in which the aircraft is registered shall be recognized by other Contracting States for the purposes of flight over their territories, including landings and take-offs.*

*Note 2.— Certification and licensing Standards are not yet developed. Thus, in the meantime, any certification and licensing need not be automatically deemed to comply with the SARPs of the related Annexes, including Annexes 1, 6 and 8, until such time as the related RPAS SARPs are developed.*

*Note 3.— Notwithstanding the Assembly Resolution A37-15, Article 8 of the Chicago Convention assures each Contracting State of the absolute sovereignty over the authorization for RPA operation over its territory.*

2.1 An RPAS shall be approved, taking into account the interdependencies of the components, in accordance with national regulations and in a manner that is consistent with the provisions of related Annexes. In addition:

- a) RPA shall have a certificate of airworthiness issued in accordance with national regulations and in a manner that is consistent with the provisions of Annex 8; and
- b) the associated RPAS components specified in the type design shall be certificated and maintained in accordance with national regulations and in a manner that is consistent with the provisions of related Annexes.

2.2 An operator shall have an RPAS operator certificate issued in accordance with national regulations and in a manner that is consistent with the provisions of Annex 6.

2.3 Remote pilots shall be licensed or have their licences rendered valid, in accordance with national regulations and in a manner that is consistent with the provisions of Annex 1.

### **3. Request for authorization**

3.1 The request for authorization referred to in 1.2 above shall be made to the appropriate authorities of the State(s) in which the RPA will operate not less than seven days before the date of the intended flight unless otherwise specified by the State.

3.2 Unless otherwise specified by the State(s), the request for authorization shall include the following:

- a) name and contact information of the operator;
- b) RPA characteristics (type of aircraft, maximum certificated take-off mass, number of engines, wing span);
- c) copy of certificate of registration;
- d) aircraft identification to be used in radiotelephony, if applicable;
- e) copy of the certificate of airworthiness;
- f) copy of the RPAS operator certificate;
- g) copy of the remote pilot(s) licence;
- h) copy of the aircraft radio station licence, if applicable;
- i) description of the intended operation (to include type of operation or purpose), flight rules, visual line-of-sight (VLOS) operation if applicable, date of intended flight(s), point of departure, destination, cruising speed(s), cruising level(s), route to be followed, duration/frequency of flight;
- j) take-off and landing requirements;
- k) RPA performance characteristics, including:

- 1) operating speeds;
  - 2) typical and maximum climb rates;
  - 3) typical and maximum descent rates;
  - 4) typical and maximum turn rates;
  - 5) other relevant performance data (e.g. limitations regarding wind, icing, precipitation); and
  - 6) maximum aircraft endurance;
- l) communications, navigation and surveillance capabilities:
- 1) aeronautical safety communications frequencies and equipment, including:
    - i) ATC communications, including any alternate means of communication;
    - ii) command and control links (C2) including performance parameters and designated operational coverage area;
    - iii) communications between remote pilot and RPA observer, if applicable;
  - 2) navigation equipment; and
  - 3) surveillance equipment (e.g. SSR transponder, ADS-B out);
- m) detect and avoid capabilities;
- n) emergency procedures, including:
- 1) communications failure with ATC;
  - 2) C2 failure; and
  - 3) remote pilot/RPA observer communications failure, if applicable;
- o) number and location of remote pilot stations as well as handover procedures between remote pilot stations, if applicable;
- p) document attesting noise certification that is consistent with the provisions of Annex 16, Volume 1, if applicable;
- q) confirmation of compliance with national security standards in a manner that is consistent with the provisions of Annex 17, to include security measures relevant to the RPAS operation, as appropriate;
- r) payload information/description; and
- s) proof of adequate insurance/liability coverage.

3.3 When certificates or other documents identified in 3.2 above are issued in a language other than English, an English translation shall be included.

3.4 After authorization has been obtained from the appropriate State(s), air traffic services notification and coordination shall be completed in accordance with the requirements of the State(s).

*Note.— A request for authorization does not satisfy the requirement to file a flight plan with the air traffic services units.*

3.5 Changes to the authorization shall be submitted for consideration to the appropriate State(s). If the changes are approved, all affected authorities shall be notified by the operator.

3.6 In the event of a flight cancellation the operator or remote pilot shall notify all appropriate authorities as soon as possible.

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End of new text.

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**APPENDIX 45. UNMANNED FREE BALLOONS**

*(Note.— See Chapter 3, 3.1.910 of the Annex)*

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