



## Joint Authorities for Rulemaking of Unmanned Systems

# JARUS- FCL RECOMMENDATION

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<p>This JARUS-FCL Recommendation ultimately aims at providing recommendations for States to use for their own national legislation, concerning uniform personnel licensing and competencies for personnel involved in the operation of remotely piloted aircraft systems (RPAS). The recommendations presented in this JARUS-FCL Recommendation document represents the culmination of best practices and procedures used in prior RPAS approvals, as well as input from JARUS-FCL expert members</p>		
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**JARUS**  
**REMOTELY PILOTED AIRCRAFT SYSTEMS**  
**FCL RECOMMENDATION**

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# EXPLANATORY NOTE

## 1 Introduction

The Joint Authorities for Rulemaking on Unmanned Systems (JARUS) has established a remote flight crew licensing workgroup, WG 1, to develop guidance material for remote pilots licensing. The workgroup holds representatives from most of JARUS 'Member States'.

This JARUS-FCL Recommendation is the outcome of WG1.

On Dec 2013 the JARUS Plenary agreed to launch a formal internal consultation of all JARUS members on LICENSING AND COMPETENCIES FOR REMOTELY PILOTED AIRCRAFT SYSTEMS (RPAS) draft.

This consultation provided 56 comments which have been individually reviewed by the WG. The vast majority of such comments has been accepted or at least partially accepted.

The first draft of this JARUS-FCL Recommendation was based on the FAA model civil aviation regulation (MCARS) format. After the comment review round, this document was revised and brought in line with the EASA- FCL format as well, to have both formats combined. This combined format, named JARUS-FCL Recommendations was now in line as well with the already consulted JARUS-ORG Recommendation.

WG 1 reached unanimous consensus on this draft JARUS-FCL Recommendation which was proposed to public external consultation through the JARUS website.

JARUS received 99 unique comments from different stakeholders worldwide, and all these comments are responded to and incorporated in a Comment Response Document (CRD), to be published simultaneously with the official release of the first edition of this JARUS-FCL Recommendation.

- 1.1 This JARUS-FCL Recommendation ultimately aims at providing recommendations for States to use for their own national legislation, concerning uniform personnel licensing and competencies for personnel involved in the operation of remotely piloted aircraft systems (RPAS). The recommendations presented in this JARUS-FCL Recommendation document represents the culmination of best practices and procedures used in prior RPAS approvals, as well as input from JARUS-FCL expert members. It should be noted that the material presented in this document is a recommended approach to personnel licencing and competency for RPAS. Because RPAS are a new part of the aviation system, each application concerning personnel licencing and competency should be assessed by the competent authority on its own technical merits and may require unique associated ratings, limitations and endorsements, which are based on the specific needs or capabilities of the
- 1.2 RPAS in question. This JARUS-FCL Recommendation is based on the following main assumptions:
- 1.3 The overall scope is based on the FCL chapter 7 in ICAO Cir 328, Unmanned Aircraft Systems (UAS). This circular state in chapter 7.9:

*"Licensing and training requirements will be developed similar to those for manned aviation and will include both the aeronautical knowledge and operational components. Specific adjustments may be needed considering the particular and unique nature and characteristics of the remote pilot station environment and RPA applications (from both a technical and flight operations perspective, e.g. VLOS or beyond VLOS) as well as aircraft type (e.g. aeroplane, helicopter). In that context, qualifications for certain categories of remote crew (e.g. VLOS helicopter) may be significantly different from those pertaining to the traditional qualifications pertaining to manned aviation."*

- 1.3.1 The overall scope is also based on the FCL chapter 8 'Licensing and Competencies' of the ICAO Manual on Remotely Piloted Aircraft Systems (RPAS) (Doc 10019 AN/507).
- 1.3.2 The FAA model civil aviation regulation (MCARS) and EASA Part-FCL (Annex 1 to the Aircrew Regulation 1178/2011), as published on the respective websites, were used as the basis for this document. The text from both regulations was combined and amended in order to make it suitable for remote pilot licencing and competencies.

# REMOTE PILOT LICENSING OF REMOTELY PILOTED AIRCRAFT SYSTEMS (RPAS)

The competent authorities for civil aviation of certain ICAO Contracting States (referred to as the Joint Authorities for Rulemaking on Unmanned Systems (JARUS)),

Having regard to the ICAO Manual on Remotely Piloted Aircraft Systems (RPAS) (Doc 10019 AN/507),

Having regard to the ICAO Circular 328,

Having regard to the FAA model civil aviation regulation (MCARS),

Having regard to EASA Part-FCL (Commission Regulation (EU) No 1178/2011, Annex 1),

Having regard to the Communication from the Commission to the European Parliament and the Council, "A new era for aviation. Opening the aviation market to the civil use of remotely piloted aircraft systems in a safe and sustainable manner" (Brussels, 8.4.2014, COM(2014) 207 final,

Having regard to the Riga Declaration on Remotely Piloted Aircraft "Framing the Future of Aviation" (Riga 6.3.2015), Having regard to the EASA paper 'Concept of Operations for Drones, A risk based approach to regulation of unmanned aircraft',

Having regard to the EASA Advanced Notice of Proposed Amendment 2015-10, Introduction of a regulatory framework for the operation of drones, thereof

Whereas:

- (1) JARUS agreed these recommendations (JARUS-FCL Recommendation) with a view to provide a harmonised basis to regulate organisations involved in the life cycle of civil RPAS.
- (2) The JARUS-FCL Recommendation may be used by the competent authorities to develop provisions regarding licensing and competencies in RPAS activities in relation to the concept of operations in their respective States or Regions.
- (3) Due to the rapid evolution of RPAS technology, the JARUS-FCL Recommendation will be subject to continuous review and may be updated when appropriate.

## **2 Article 1: Subject matter**

The JARUS-FCL Recommendation lays down detailed provisions for:

- 2.1 Different ratings for remote pilots' licences, the conditions for issuing, maintaining, amending, limiting, suspending or revoking remote pilot licences, the privileges and responsibilities of the holders of remote pilot licences, the conditions for the conversion of existing national remote pilots' licences and crediting of military competency;
- 2.2 Conditions for the acceptance of licences from other States;
- 2.3 The certification of RPAS instructors and RPAS examiners.

## **3 Article 2: Scope**

3.1 The JARUS-FCL Recommendation should be applicable to 'Certified' category (higher risk) operations of RPAS as defined as drones in the EASA paper 'Concept of Operations for Drones, A risk based approach to regulation of unmanned aircraft'. States may apply this JARUS FCL recommendations as well for the 'Specific' category.

3.2 Out of scope of this JARUS-FCL Recommendation are:

- i. Model aircraft exclusively used for air display, recreational, sport or competition activity;*
- ii. Toy aircraft (suited to be used by a child of less than 14 years) falling under the definition of aircraft;*
- iii. Indoor operations;*
- iv. State flights (military or governmental non-military);*
- v. Optionally piloted aircraft;*
- vi. Aircraft with no pilot on-board, but carrying passengers; and*
- vii. Remote pilot licences for RPAS flight crew members other than remote pilots.*

## **4 Article 3: General provisions for remote pilot licences, associated ratings, endorsements and certificates**

4.1 The remote pilot should comply with the technical recommendations and administrative procedures laid down in Annex 1 to this JARUS-FCL Recommendation.

4.2 Remote pilot licences.

- a) The competent authority should issue the following remote pilot licences to an applicant who satisfactorily accomplishes the provisions in this JARUS-FCL Recommendation for the licence sought:
- b) Remote pilot licence (RPL);
- c) VLOS Remote pilot licence (VLOS RPL).

#### 4.3 Ratings.

- a) The competent authority should issue class or type ratings for RPA or RPS to place on a remote pilot licence when an applicant satisfactorily accomplishes the provision in this JARUS-FCL Recommendation for the rating sought.

##### 4.3.1 The following categories of RPA are applicable:

- a) aeroplane;
- b) helicopter;
- c) airship;
- d) balloon;
- e) multi-rotor.

##### 4.3.2 The following class or type ratings should be established for RPA and RPS:

- a) Class ratings in the following RPA and RPS:  
Each type of RPA and RPS certificated for single-remote pilot operation, which have comparable handling, performance and characteristics, unless a type rating is considered necessary by the competent authority.
- b) Type ratings in the following RPA and RPS:
  - 1) Each type of RPA and RPS certificated for operation with a minimum crew of at least two remote pilots;
  - 2) Any RPA and RPS considered necessary by the competent authority.

#### 4.4 Endorsements.

A remote pilot should receive the following endorsements from an RPAS instructor when he/she has satisfactorily accomplished the required training according to this JARUS-FCL Recommendation:

- a) Night endorsement;
- b) High altitude RPA endorsement.

#### 4.5 Certificates.

4.5.1 The competent authority or designated medical entities should issue a medical certificate Class 3 when an applicant satisfactorily accomplishes the provisions in this JARUS-FCL Recommendation for the medical certificate sought. The competent authority may consider using the flexibility provided by ICAO Annex 1 regarding the medical assessment given the particular environment of the RPS and the conduct of the RPAS operations.

4.5.2 The competent authority should issue an RPAS instructor certificate appropriate to the RPAS instruction given.

4.5.3 The competent authority should issue an RPAS examiner certificate appropriate to the RPAS examination given.

**5 Article 4 - Validity of remote pilot licences, associated ratings, endorsements and certificates**

- 5.1 The competent authority should issue, renew, or revalidate a remote pilot licence, associated ratings, endorsements and certificates when the applicant complies with the provisions of the JARUS-FCL Recommendation.
- 5.2 Privileges. The holder of a remote pilot licence, associated ratings, endorsements or certificate, shall not exercise privileges other than those granted by the remote pilot licence, associated ratings, endorsements or certificate.
- 5.3 The privileges granted by a remote pilot licence and associated ratings, endorsements or certificates shall not be exercised unless the holder maintains their validity in accordance with the provisions of this JARUS-FCL Recommendation.
- 5.4 Maintenance of competency should be indicated in the personal remote pilot licence or record (e.g. logbook).
- 5.5 The validity period of a remote pilot license should be determined by the competent authority and may be non-expiring.
- 5.6 The validity period of associated ratings, endorsements or certificates and the renewal conditions are indicated in the relevant Subparts in Annex I of this JARUS-FCL Recommendation.
- 5.7 Medical fitness. The applicants for a remote pilot licence shall hold a medical certificate issued in accordance with the provisions of r this JARUS-FCL Recommendation in order for their remote pilot licence to be valid.

## **6 Article 5 - Credit for military remote pilots obtained during military service**

6.1 Except for a rated military remote pilot or former military remote pilot who has been removed from flying status for lack of proficiency, or because of disciplinary action involving aircraft operations, a rated military remote pilot or former rated military remote pilot who meets the provisions of this JARUS-FCL Recommendation may apply, on the basis of his or her military training, for:

- a) A remote pilot licence;
- b) A rating in the category and type of RPAS for which that military remote pilot is qualified.

6.2 In order for a holder of a military remote pilot licence to obtain a civil remote pilot licence, the holder should apply to the State where the military service was completed.

6.3 The knowledge, experience and skill gained in military service should be credited for the purposes of the relevant provisions of this JARUS-FCL Recommendation in accordance with the elements of a credit report established by the State.

The credit report should:

- a) describe the national provisions on the basis of which the military remote pilot licence, and associated ratings were issued;
- b) describe the scope of the privileges that were given to the military remote pilots;
- c) indicate any limitations that need to be included on the remote pilot licence and indicate any provisions military remote pilots have to comply with to remove those limitations;
- d) include copies of all documents necessary to demonstrate the elements above, accompanied by copies of the relevant national provisions and procedures.

**7 Article 6 - Credit for previous experience and knowledge**

7.1 A (remote) pilot who meets the provisions of this JARUS-FCL Recommendation may apply, on the basis of prior demonstrated knowledge, experience and skill acquired in manned or unmanned aviation, for:

- a) A remote pilot licence;
- b) A rating in the class or type of the RPA of RPS for which that remote pilot is qualified.

7.2 Holders of pilot licences to obtain JARUS-FCL remote pilot licences, should apply to the State where they are licensed.

7.3 The knowledge, experience and skill gained should be credited for the purposes of the relevant provisions of this JARUS-FCL Recommendation in accordance with the elements of a credit report established by the State.

7.4 The credit report should describe the scope of the training, indicate for which provisions of remote pilot licences credit is given and, if applicable, which provisions applicants need to comply with in order to be issued with remote pilot licences. It shall include copies of all documents necessary to demonstrate the scope of the training and of the national regulations and procedures in accordance with which the training was commenced.

**8 Article 7 - Conditions for the acceptance of remote pilot licences, associated ratings, endorsements and certificates from other States**

8.1 States may accept remote pilot licences, associated ratings, endorsements and certificates from other States issued by or on behalf of that other State.

8.2 The credit given to the applicant shall be determined by the State to which the remote pilot applies.



## ANNEX I Subpart A – General provision

### 9 GENERAL PROVISIONS

#### 9.1 JARUS-FCL.001 Competent authority

For the purpose of this JARUS-FCL Recommendation, the competent authority shall be an authority designated by the State to whom a person applies for the issue of remote pilot licences or associated ratings, endorsements or certificates.

#### 9.2 JARUS-FCL.005 Scope

The JARUS-FCL Recommendation establishes the provisions for the issue of remote pilot licences and associated ratings, endorsements and certificates and the conditions of their validity and use.

#### 9.3 JARUS-FCL.010 Definitions

For the purpose of this JARUS-FCL Recommendation, the following definitions apply:

- ✓ 'Airmanship' means the consistent use of good judgement and well-developed knowledge, skills and attitudes to maintain flight safety and accomplish flight objectives.
- ✓ 'Calendar month' means a period of a month beginning and ending with the dates that are conventionally accepted as marking the beginning and end of a numbered month (as January 1 through January 31 in the Gregorian calendar).
- ✓ 'Calendar year' means a period of a year beginning and ending with the dates that are conventionally accepted as marking the beginning and end of a numbered year (as January 1 through December 31 in the Gregorian calendar).
- ✓ 'Commercial air transport' means the transport of passengers, cargo or mail for remuneration or hire.
- ✓ 'Competency' means a combination of skills, knowledge and attitude required to perform a task to the prescribed standard.
- ✓ 'Conversion' means the action taken by a State in issuing its own remote pilot licence on the basis of a remote pilot licence issued by another State for use on RPA registered in that State.
- ✓ 'Credit' means recognition of alternative means or prior qualifications.
- ✓ 'Cross-country' means a flight between a point of departure and a point of arrival following a pre-planned route using standard navigation procedures.
- ✓ 'Error' means an action or inaction by the flight crew that leads to deviations from organisational or flight crew intentions or expectations.
- ✓ 'Error management' means the process of detecting and responding to errors with countermeasures that reduce or eliminate the consequences of errors, and mitigate the probability of errors or undesired aircraft state.
- ✓ 'Flight plan' means specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an RPA.
- ✓ 'Flight time - aeroplanes' The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.
- ✓ 'Flight time — helicopters' The total time from the moment a helicopter's rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight, and the rotor blades are stopped.

- ✓ 'Flight simulation training device (FSTD)' means any one of the following types of FSTDs in which flight conditions are simulated on the ground:
  - (i) A flight simulator, which provides an accurate representation of the RPS of a particular RPA 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 RPA are realistically simulated;
  - (ii) A flight procedures trainer, which provides a realistic RPS environment, and simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. RPAS, and the performance and flight characteristics of RPA of a specific class;
- ✓ 'Human performance' means human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.
- ✓ 'Operator' means a person, organisation or enterprise engaged in or offering to engage in an RPAS operation.
- ✓ 'Remote pilot' means 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' (RPIC) means the remote pilot designated by the operator as being in command and charged with the safe conduct of a flight.
- ✓ 'Remote pilot station' (RPS) means, the component of the remotely piloted aircraft system containing the equipment used to pilot the remotely piloted aircraft.
- ✓ 'Remotely piloted aircraft' (RPA) means an unmanned aircraft which is piloted from a remote pilot station.
- ✓ 'Remotely piloted aircraft system' (RPAS) means 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 aeroplane' (RPA(A)) means an engine-driven fixed-wing RPA heavier than air which is supported in flight by the dynamic reaction of the air against its wings.
- ✓ 'RPA airship' (RPA(As)) means a power-driven lighter than air RPA.
- ✓ 'RPA helicopter (RPA(H)) means a heavier-than-air RPA supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.
- ✓ 'RPA multi-rotor' (RPA(MR)) means a RPA rotorcraft having two or more usually symmetrically placed rotors whose flight stabilisation is through a combination of electro/mechanical sensors and computing devices.
- ✓ 'RPA observer' means a trained and competent person designated by the operator who, by visual observation of the RPA, assists the remote pilot in the safe conduct of the flight.
- ✓ 'Threat' means events or errors that occur beyond the influence of the flight crew, increase operational complexity and which must be managed to maintain the margin of safety.
- ✓ 'Threat management' means the process of detecting and responding to the threats with countermeasures that reduce or eliminate the consequences of

threats, and mitigate the probability of errors or undesired aircraft.

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

#### 9.4 JARUS-FCL.015 Application

- a) An applicant should, before being issued with any remote pilot licence, associated rating, or certificate, meet such provisions in respect of age, knowledge, experience, RPAS instruction, skill, medical fitness and language proficiency as are specified for that remote pilot licence, associated rating or certificate.
- b) A person should not act either as RPIC or as remote co-pilot of an RPA in any of the RPA categories unless that person is the holder of a remote pilot licence issued in accordance with the provisions of this JARUS-FCL Recommendation.
- c) An applicant should, for the revalidation or renewal of a remote pilot licence, associated rating or certificate, meet the provisions as are specified for that remote pilot licence, associated rating or certificate.
- d) An application for the issue, revalidation or renewal of remote pilot licences, associated ratings, or certificates should be submitted to the competent authority in a form and manner established by this authority. The application shall be accompanied by evidence that the applicant complies with the provisions for the issue, revalidation or renewal of the remote pilot licence or certificate as well as associated ratings, or endorsements, established in this JARUS-FCL Recommendation.
- e) Any limitation or extension of the privileges granted by a remote pilot licence, associated rating or certificate should be endorsed in the remote pilot licence or certificate by the competent authority.

#### 9.5 JARUS-FCL.020 Student remote pilots

##### 9.5.1 Common provisions

- a) Age. A student remote pilot should be not less than 16 years of age.
- b) Theoretical knowledge. A student remote pilot should receive and log ground training from an authorised RPAS instructor on the following subjects:
  - 1) Applicable sections of this JARUS-FCL Recommendation for the category of RPA to be flown;
  - 2) Airspace rules and procedures for the aerodrome where the student remote pilot will perform solo flight; and
  - 3) Flight characteristics and operation limitations for the make and model of RPA to be flown.
- c) Pre-solo flight instruction. Prior to conducting a solo flight, a student remote pilot should have:
  - 1) Received and logged flight training for the manoeuvres and procedures applicable to the RPA category including flight training in those manoeuvres and procedures at night, if the solo flight is to be conducted at night.
  - 2) Demonstrated satisfactory proficiency and safety, as judged by an RPAS instructor, on the manoeuvres and procedures for the appropriate category if applicable, of RPA.

- d) Solo flight provisions: A student remote pilot should not act as solo remote pilot of an RPAS:
  - 1) unless under the supervision of, or with the authority of, an RPAS instructor, and
  - 2) on an international RPA flight unless by special or general arrangement between the States concerned.
- e) A State should not permit a student remote pilot to fly an RPA unless that remote pilot student holds at least a current Medical Certificate.

9.6 JARUS-FCL.025 Theoretical knowledge examinations for the issue of remote pilot licences and associated ratings

9.6.1 Responsibilities of the applicant

- a) Applicants shall take the entire set of theoretical knowledge examinations for a specific remote pilot licence or associated rating under the responsibility of one Member State.
- b) Applicants should only take the theoretical knowledge examination when recommended by the approved training organisation (ATO) or an RPAS instructor responsible for their training, if required, once they have completed the appropriate elements of the training course of theoretical knowledge instruction to a satisfactory standard.
- c) The recommendation shall be valid for a time period determined according to the competent authority. If the applicant has failed to attempt at least one theoretical knowledge examination paper within this period of validity, the need for further training shall be determined by the ATO or the RPAS instructor, based on the needs of the applicant.

9.6.2 Pass standards and validity period

The pass standards and validity period for examination should be determined by the competent authority.

9.7 JARUS-FCL.030 Practical skill test

9.7.1 Before a skill test for the issue of a remote pilot licence, associated rating or certificate is taken, the applicant shall have passed the required theoretical knowledge examination.

9.7.2 The applicant for a skill test shall be recommended for the skill test by the ATO or the RPAS instructor responsible for the training, if required once the training is completed. The training records shall be made available to the RPAS examiner.

9.8 JARUS-FCL.035 crediting of flight time

9.8.1 Unless otherwise specified in this JARUS-FCL Recommendation, flight time to be credited for a remote pilot licence, associated rating or certificate should be made in the same RPAS for which the remote pilot licence, associated rating or certificate is sought.

9.8.2 The holder of a remote pilot licence, associated rating or certificate should be entitled to be credited in full with all solo, dual instruction and RPIC flight time towards the total flight time required for the remote pilot licence associated rating or certificate.

9.8.3 The holder of a remote pilot licence, associated rating or certificate, when acting as remote co-pilot at an RPS of an RPAS certificated for operation by a single remote pilot but required by the competent authority to be operated with a remote co-pilot should be entitled to be credited with not more than 50 per cent of the remote co-pilot flight time towards the total flight time. The competent authority should authorise that flight time be credited in full towards the total flight time required if the RPAS is equipped to be operated by a remote co-pilot and the RPA is operated in a multi-crew operation.

9.8.4 The holder of a remote pilot licence, associated rating or certificate, when acting as remote co-pilot at an RPS of an RPAS certificated to be operated with a remote co-pilot, should be entitled to be credited in full with this flight time towards the total flight time required.

9.9 JARUS-FCL.040 Exercise of the privileges of remote pilot licences

The exercise of the privileges granted by a remote pilot licence shall be dependent upon the validity of the associated ratings, limitations or endorsements, if applicable, and of the medical certificate.

9.10 JARUS-FCL.045 Obligation to carry and present documents

9.10.1 A valid remote pilot licence and a valid medical certificate should always be immediately available by the remote pilot when exercising the privileges of the remote pilot licence.

9.10.2 The remote pilot should carry a personal identification document containing his/her photo.

9.10.3 A remote pilot or a student remote pilot should without undue delay present his/her flight time record for inspection upon request by an authorised representative of a competent authority.

9.10.4 A student pilot should carry on all solo flights evidence of the authorisation required by JARUS-FCL.020.

9.11 JARUS-FCL.050 Recording of flight time

Each person should document and record the following time in a manner acceptable to the competent authority:

- 9.11.1 Training and experience used to meet the provisions for a remote pilot licence, associated rating, limitation, or endorsements according to this JARUS-FCL Recommendation; and
- 9.11.2 The experience required to show recent flight experience according to the provisions of this JARUS-FCL Recommendation.
- 9.12 JARUS-FCL.055 Language proficiency
  - 9.12.1 General. Remote pilots, required to communicate with ATS, should demonstrate the ability to speak and understand the language used for ATS for radio telephony communications in English language or the language of the State used during the flight.
  - 9.12.2 The applicant for a language proficiency endorsement should demonstrate at least an operational level of language proficiency both in the use of phraseologies and plain language to at least the ICAO Operational Level (Level 4) as specified in the language proficiency requirements in Appendix 1 to Annex 1 to the Chicago Convention.
  - 9.12.3 The language proficiency of remote pilots 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 intervals not greater than 3 years;
    - b) Those demonstrating language proficiency at the Extended Level (Level 5) should be evaluated at intervals not greater than 6 years; and
    - c) Those demonstrating language proficiency at the Expert Level (Level 6) should be exempt from further language evaluation.
- 9.13 JARUS-FCL.060 Revocation, suspension and limitation of remote pilot licences, associated ratings and certificates
  - 9.13.1 The competent authority shall limit, suspend or revoke as applicable a remote pilot licence and associated ratings or certificates, but not limited to, the following circumstances:
    - a) obtaining the remote pilot licence, associated rating or certificate by falsification of submitted documentary evidence;
    - b) falsification of the logbook and remote pilot licence or certificate records;
    - c) the remote pilot licence holder no longer complies with the applicable requirements of this JARUS-FCL Recommendation;
    - d) exercising the privileges of a remote pilot licence, associated rating or certificate when adversely affected by alcohol or drugs;
    - e) non-compliance with the applicable operational provisions;
    - f) evidence of malpractice or fraudulent use of the remote pilot licence, associated rating or certificate; or
    - g) unacceptable performance in any phase of the RPAS examiner's duties or responsibilities.

- 9.13.2 The competent authority may also limit, suspend or revoke a remote pilot licence, associated rating or certificate upon the written request of the holder of this remote pilot licence, associated rating or certificate.
- 9.13.3 When the remote pilot has his/her remote pilot licence, associated rating or certificate suspended or revoked, he/she shall immediately return the remote pilot licence, associated rating or certificate to the competent authority.
- 9.13.4 All skill tests, proficiency checks or assessments of competence conducted during suspension or after the revocation of an RPAS examiner's certificate will be invalid.

## **Subpart B - REMOTE PILOT LICENCE (RPL) AND VISUAL LINE OF SIGHT REMOTE PILOT LICENCE (VLOS RPL)**

### **10 SECTION 1 - Common provisions for RPL and VLOS RPL**

#### **10.1 JARUS-FCL.100 Minimum age and medical fitness**

10.1.1 Age. The applicant for an RPL and VLOS RPL should be at least 18 years of age.

10.1.2 Medical fitness. The applicant for an RPL and VLOS RPL should hold a current medical certificate.

#### **10.2 JARUS-FCL.105 Privileges and conditions**

10.2.1 Privileges.

a) The privileges of the holder of an RPL are to act as RPIC of an RPA in operations within the appropriate RPA category certificated for single-pilot or multi-pilot operation.

b) The privileges of the holder of an VLOS RPL are to act as RPIC of an RPA in VLOS operations within the appropriate RPA category certificated for single-pilot operation.

10.2.2 Conditions. An applicant for the issue of an RPL and VLOS RPL should have fulfilled the provisions for the type rating of the RPA used in the skill test in accordance with the applicable provision in this JARUS-FCL Recommendation.

#### **10.3 JARUS-FCL.110 Theoretical knowledge examination**

An applicant for an RPL and VLOS RPL should receive and log ground training from an RPAS instructor on the following subjects appropriate to the privileges granted to the holder of this remote pilot licence and appropriate to the category of RPA to be included on the remote pilot licence:

- Air law;
- RPAS general knowledge;
- RPAS flight performance, planning and loading;
- Human performance;
- Navigation (for RPL only)
- Meteorology;
- Operation procedures;
- Principles of flight;
- Radiotelephony.

#### **10.4 JARUS-FCL.115 Experience and RPAS flight instruction**

An applicant for an RPL should have completed the experience and RPAS instruction provisions appropriate to the RPA category as specified in this JARUS-FCL Recommendation

#### **10.5 JARUS-FCL.120 Skill test**

An applicant for an RPL and VLOS RPL should:



- 10.5.1 demonstrate by passing a skill test the ability to perform as RPIC of an RPA, with a degree of competency appropriate to the privileges granted to the holder of an RPL or VLOS RPL;
- 10.5.2 operate the RPA within its limitations;
- 10.5.3 complete all manoeuvres with smoothness and accuracy;
- 10.5.4 exercise good judgement and airmanship;
- 10.5.5 apply aeronautical knowledge; and
- 10.5.6 maintain control of the RPA at all times in a manner such that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

## 11 SECTION 2 - ADDITIONAL PROVISIONS FOR RPL

### 11.1 Specific provisions for the RPA category aeroplanes - RPL(A)

#### 11.1.1 JARUS-FCL.125 RPL(A) Experience

- a) The applicant for an RPL(A) should have completed not less than 40 hours of RPAS flight time, as a remote pilot of RPA(A), of which 25 hours may have been completed in an FSTD.
- b) The applicant should have completed in RPA(A) not less than:
  - 1) 15 hours as RPIC;
  - 2) 5 hours of cross-country flight time as RPIC;
  - 3) 20 take-offs and landings;
  - 4) at least 20 hours of IFR flight time of which 15 hours may have been completed in an FSTD.
- c) The applicant for an RPL(A) should receive and log not less than 25 hours of dual RPAS instruction in an RPA(A) from an RPAS instructor. These 25 hours may include 5 hours completed in an FSTD.
- d) Crediting. Applicant holding an RPL for another category of RPA, shall be credited with 10% of their total flight time as RPIC on such RPA up to a maximum of 4 hours.

#### 11.1.2 JARUS-FCL.130 RPL(A) RPAS instruction

The RPAS instructor should ensure that the applicant has operational experience in at least the following areas to the level of performance required for the remote pilot:

- 1) Recognise and manage threats and errors;
- 2) Pre-flight operations, including RPA(A) and RPAS inspection and servicing, communication checks and control function verification, setup of RPS, loading and validation of flight planning information, and obtaining ATC clearances where appropriate;
- 3) Aerodrome and traffic pattern operations where applicable, ground and airborne collision avoidance precautions and procedures including use of RPA observers and communication services if required;
- 4) Control of the RPA(A) by visual reference unless the RPAS does not provide for manoeuvres by visual reference;
- 5) Recovery from flight at critically slow airspeeds; high sink rates and, in case of an RPA(A), spin avoidance;
- 6) Flight with asymmetrical power for multi-engine class or type ratings;
- 7) Recovery from unusual attitudes using flight instrumentation or by use of EO payload;
- 8) Normal and cross-wind take-offs and landings;
- 9) Maximum performance (short field and obstacle clearance take-offs, short-field landings);
- 10) Navigation procedures using all available means including change of destination or in flight lost link procedures and flight plan programming;
- 11) Hazardous weather identification and avoidance procedures;
- 12) Abnormal and emergency procedures and manoeuvres including simulated aircraft power plant and electrical system failures, software

failures, loss of control link, failures and malfunctions limited to the RPS, communication failure;

- 13) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures;
- 14) Communication procedures and phraseology; and
- 15) IFR procedures appropriate to RPAS operations.

11.2 Specific provisions for the RPA category helicopter - RPL(H)

11.2.1 JARUS-FCL.125 RPL(H) Experience

- a) The applicant for an RPL(H) should have completed not less than 40 hours of RPAS flight time, as a remote pilot of RPA(H), of which 25 hours may have been completed in an FSTD.
- b) The applicant should have completed in RPA(H) not less than:
  - 1) 15 hours as RPIC;
  - 2) 5 hours of cross-country flight time as RPIC;
  - 3) 20 take-offs and landings;
  - 4) at least 20 hours of IFR flight time of which 15 hours may have been completed in an FSTD.
- c) The applicant for an RPL(H) should receive and log not less than 25 hours of dual RPAS instruction in an RPA(H) from an RPAS instructor. These 25 hours may include 5 hours completed in an FSTD.
- d) Crediting. Applicant holding an RPL for another category of RPA, shall be credited with 10% of their total flight time as RPIC on such RPA up to a maximum of 4 hours.

### 11.2.2 JARUS-FCL.130 RPL(H) RPAS instruction

The RPAS instructor should ensure that the applicant has operational experience in at least the following areas to the level of performance required for the remote pilot:

- a) Recognise and manage threats and errors;
- b) Pre-flight operations, including RPA(H) and RPAS inspection and servicing, communication checks and control function verification, setup of RPS, loading and validation of flight planning information, and obtaining ATC clearances where appropriate;
- c) Aerodrome and traffic pattern operations where applicable, ground and airborne collision avoidance precautions and procedures including use of RPA observers and communication services if required;
- d) Control of the RPA(H) by external visual reference unless the RPAS does not provide for manoeuvres by visual reference;
- e) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
- f) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind and sloping ground; steep approaches;
- g) Recovery from unusual attitudes using flight instrumentation or by use of EO payload;
- h) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
- i) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
- j) Navigation procedures using all available means including change of destination or in flight lost link procedures and flight plan programming;
- k) Hazardous weather identification and avoidance procedures;
- l) Abnormal and emergency procedures and manoeuvres including simulated aircraft power plant and electrical system failures, software failures, loss of control link, failures and malfunctions limited to the RPS, communication failure;
- m) Communication procedures and phraseology;
- n) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- o) IFR procedures appropriate to RPAS operations.

### 11.3 Specific provisions for the RPA category Multirotor - RPL(MR)

#### 11.3.1 JARUS-FCL.125 RPL(MR) Experience

- a) The applicant for an RPL(MR) should have completed not less than 16 hours of RPAS flight time, as a remote pilot of RPA(MR), of which 2 hours may have been completed in an FSTD.
- b) The applicant should have completed in RPA(MR) not less than:
  - 1) 5 hours as RPIC;
  - 2) 5 hours of cross-country flight time as RPIC;
  - 3) 20 take-offs and landings.
- c) The applicant for an RPL(MR) should receive and log not less than 7 hours of dual RPAS instruction in an RPA(MR) from an authorised RPAS instructor.
- d) Crediting. Applicant holding an RPL for another category of RPA, shall be credited with 10% of their total flight time as RPIC on such RPA up to a maximum of 2 hours.

#### 11.3.2 JARUS-FCL.130 RPL(MR) RPAS instruction

The RPAS instructor should ensure that the applicant has operational experience in at least the following areas to the level of performance required for the remote pilot:

- a) Recognise and manage threats and errors;
- b) Pre-flight operations, including RPA(MR) and RPAS inspection and servicing, communication checks and control function verification, setup of RPS, loading and validation of flight planning information, and obtaining ATC clearances where appropriate;
- c) Aerodrome and traffic pattern operations where applicable, ground and airborne collision avoidance precautions and procedures including use of RPA observers and communication services if required;
- d) Control of the RPA(MR) by external visual reference unless the RPAS does not provide for manoeuvres by visual reference;
- e) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind and sloping ground; steep approaches;
- f) Navigation procedures using all available means including change of destination or in flight lost link procedures and flight plan programming;
- g) Hazardous weather identification and avoidance procedures;
- h) Abnormal and emergency procedures and manoeuvres including simulated aircraft power plant and electrical system failures, software failures, loss of control link, failures and malfunctions limited to the RPS, communication failure;
- i) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- j) Communication procedures and phraseology.

11.4 Specific provisions for the RPA category Airship - RPL(As)

11.4.1 JARUS-FCL.125 RPL(As) Experience

- a) The applicant for an RPL(As) should have completed not less than 35 hours of RPAS flight time, as a remote pilot of RPA(As), of which 5 hours should have been completed in an FSTD.
- b) The applicant should have completed in RPA(As) not less than:
  - 1) 5 hours as RPIC;
  - 2) 5 hours of cross-country flight time as RPIC;
  - 3) 8 take-offs and landings;
- c) The applicant for an RPL(As) should receive and log not less than 25 hours of dual RPAS instruction in an RPA(As) from an RPAS instructor
- d) Crediting. Applicant holding an RPL for another category of RPA, shall be credited with 10% of their total flight time as RPIC on such RPA up to a maximum of 4 hours.

11.4.2 JARUS-FCL.130 RPL(As) RPAS instruction

The RPAS instructor should ensure that the applicant has operational experience in at least the following areas to the level of performance required for the remote pilot:

- a) Recognise and manage threats and errors;
- b) Pre-flight operations, including RPA(As) and RPAS inspection and servicing, communication checks and control function verification, setup of RPS, loading and validation of flight planning information, and obtaining ATC clearances where appropriate;
- c) Aerodrome and traffic pattern operations where applicable, ground and airborne collision avoidance precautions and procedures including use of RPA observers and communication services if required;
- d) Control of the RPA(As) by external visual reference unless the RPAS does not provide for manoeuvres by visual reference;
- e) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind and sloping ground; steep approaches;
- f) Navigation procedures using all available means including change of destination or in flight lost link procedures and flight plan programming;
- g) Hazardous weather identification and avoidance procedures;
- h) Abnormal and emergency procedures and manoeuvres including simulated aircraft power plant and electrical system failures, software failures, loss of control link, failures and malfunctions limited to the RPS, communication failure;
- i) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- j) Communication procedures and phraseology.

11.5 Specific provisions for the RPA category Balloon - RPL(B)

11.5.1 JARUS-FCL.125 RPL(B) Experience

- a) The applicant for an RPL(B) should have completed not less than 16 hours of RPAS flight time, as a remote pilot of RPA(B), of which 2 hours should have been completed in an FSTD.
- b) The applicant should have completed in RPA(B) not less than:
  - 1) 5 hours as RPIC;
  - 2) 5 hours of cross-country flight time as RPIC;
  - 3) 20 take-offs and landings;
- c) The applicant for an RPL(B) should receive and log not less than 12 hours of dual RPAS instruction in an RPA(B) from an authorised RPAS instructor.
- d) Crediting. Applicant holding an RPL for another category of RPA, shall be credited with 10% of their total flight time as RPIC on such RPA up to a maximum of 2 hours.

11.5.2 JARUS-FCL.130 RPL(B) RPAS instruction

The RPAS instructor should ensure that the applicant has operational experience in at least the following areas to the level of performance required for the remote pilot:

- a) Recognise and manage threats and errors;
- b) Pre-flight operations, including RPA(B) and RPAS inspection and servicing, communication checks and control function verification, setup of RPS, loading and validation of flight planning information, and obtaining ATC clearances where appropriate;
- c) Aerodrome and traffic pattern operations where applicable, ground and airborne collision avoidance precautions and procedures including use of RPA observers and communication services if required;
- d) Control of the RPA(B) by external visual reference unless the RPAS does not provide for manoeuvres by visual reference;
- e) Ground manoeuvring and run-ups; hovering; take-offs and landings – normal, out of wind and sloping ground; steep approaches;
- f) Navigation procedures using all available means including change of destination or in flight lost link procedures and flight plan programming;
- g) Hazardous weather identification and avoidance procedures;
- h) Abnormal and emergency procedures and manoeuvres including simulated aircraft power plant and electrical system failures, software failures, loss of control link, failures and malfunctions limited to the RPS, communication failure;
- i) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- j) Communication procedures and phraseology.



## Subpart C - CLASS AND TYPE RATINGS

### 12 Common provisions

- 12.1 JARUS-FCL.200 Circumstances in which class or type ratings are required
- 12.1.1 The holder of a remote pilot licence should not act in any capacity as remote pilot of an RPA or RPS unless they have a valid class or type rating, or endorsements, except when undergoing skill test, or proficiency checks for renewal of class or type ratings, or receiving RPAS instruction.
- 12.1.2 Notwithstanding (a), in the case of remote flights related to the introduction or modification of an RPA or RPS, remote pilots may hold a special certificate given by the competent authority, authorising them to perform the remote flights. This authorisation shall have its validity limited to the specific remote flights.
- 12.2 JARUS-FCL.205 Privileges of the holder of a class or type rating
- The privileges of the holder of a class or type rating are to act as remote pilot on an RPA or RPS specified in the rating.
- 12.3 JARUS-FCL.210 Class and type ratings - variant
- 12.3.1 In order to extend his/her privileges to another variant of an RPA or RPS within one class or type rating, the remote pilot shall undertake differences or familiarisation training. In the case of variants within a type rating, the differences or familiarisation training shall include the relevant elements defined in the operational suitability data.
- 12.3.2 If the variant has not been flown within a period of 24 calendar months following the differences training, further differences training or a proficiency check in that variant shall be required to maintain the privileges.
- 12.3.3 The differences training shall be entered in the remote pilot's logbook or equivalent record and signed by the RPAS instructor as appropriate.
- 12.4 JARUS-FCL.215 Provisions for the issue of class and type ratings
- 12.4.1 Training course. An applicant for a class or type rating shall complete a training course approved by the competent authority.
- 12.4.2 Theoretical knowledge examination. The applicant for a class or type rating shall pass a theoretical knowledge examination approved by the competent authority to demonstrate the level of theoretical knowledge required for the safe operation of the applicable RPA or RPS.
- The theoretical knowledge examination shall be written and the number of multiple-choice questions shall depend on the complexity of the RPA or RPS.
- 12.4.3 Skill test. An applicant for a type rating shall pass a skill test in accordance with this JARUS-FCL Recommendation to demonstrate the skill required for the safe operation of the applicable RPA or RPS.
- The applicant shall pass the skill test within a period of 6 calendar months after commencement of the class or type rating training course and within a period of 6 calendar months preceding the application for the issue of the class or type rating.

- 12.4.4 An applicant who already holds a type rating for an RPA type, with the privilege for either single-pilot or multi-pilot operations, shall be considered to have already fulfilled the theoretical provisions when applying to add the privilege for the other form of operation on the same RPA type.
- 12.5 JARUS-FCL.220 Validity revalidation and renewal of type ratings
- 12.5.1 The period of validity of class or type ratings shall be 24 calendar months.
- 12.5.2 For the revalidation of class or type rating, the applicant should complete a proficiency check on the areas of operation listed in the skill test that is applicable.
- 12.5.3 For the renewal of a class or type rating, the applicant should:
- a) take approved refresher training, when necessary to reach the level of proficiency necessary to safely operate the relevant type of RPA or RPS;
  - b) complete a proficiency check on the areas of operation listed in the skill test.
- 12.5.4 If a remote pilot takes the proficiency check in the calendar month before or the calendar month after the calendar month in which it is due, the remote pilot is considered to have taken it in the calendar month in which it was due for the purpose of computing when the next proficiency check is due.

## Subpart D - ADDITIONAL ENDORSEMENTS

### 13 ENDORSEMENTS

#### 13.1 FCL.300 Night endorsement for RPA

If the privileges of a remote pilot licence are to be exercised in VFR conditions at night, applicants shall have completed an approved training course. The course shall comprise:

13.1.1 Theoretical knowledge instruction;

13.1.2 at least 5 hours of RPAS flight time in the appropriate RPA category at night, including at least:

- a) 3 hours of dual RPAS instruction, including at least 1 hour of cross-country navigation;
- b) 5 take-offs and 5 landings.

#### 13.2 JARUS-FCL.305 High Altitude RPA endorsement

No person should act as remote pilot in command of an RPA capable of operating at high altitudes (an RPA that has a service ceiling or maximum operating altitude, whichever is lower, above 29,000 MSL) unless the person has:

- 1) Received and logged ground training from an RPAS instructor and received an endorsement in the logbook from the RPAS instructor certifying the person has satisfactorily accomplished ground training in at least the in the following subjects:
  - a) High-altitude aerodynamics and meteorology;
  - b) Airspace flight rules related to high altitude operations.
- 2) Received and logged RPA flight training from an RPAS instructor and received an endorsement in the logbook from the RPAS instructor certifying the person has satisfactorily accomplished flight training on an RPAS or in an FSTD that is representative of a high altitude RPA, in at least the in the following subjects:
  - a) normal cruise flight operations while operating above 29,000 feet MSL;
  - b) emergency descent procedures;
  - c) loss link;
  - d) airframe ice accumulation;
  - e) lightning strike and electrical disruption;
  - f) clear air turbulence.

## Subpart E - RPAS INSTRUCTORS

### 14 Common provisions

#### 14.1 JARUS-FCL.400 RPAS instructor certificates

14.1.1 General. A person shall only carry out RPAS flight instruction when he/she holds:

- a) A remote pilot licence issued or accepted in accordance with this JARUS-FCL Recommendation;
- b) An RPAS instructor certificate appropriate to the RPAS instruction given, issued in accordance with this Subpart.

14.1.2 Special conditions:

- a) In the case of introduction of new RPA or RPS in a State or in an operator's fleet, when compliance with the provisions established in this Subpart is not possible, the competent authority may issue a specific certificate giving privileges for RPAS instruction. Such a certificate shall be limited to the RPAS instruction flights necessary for the introduction of the new RPA or RPS and its validity shall not, in any case, exceed 1 year.
- b) Holders of a certificate issued in accordance with (b)(1) who wish to apply for the issue of an RPAS instructor certificate shall comply with the prerequisites and revalidation provisions established for that category of RPAS instructor.

#### 14.2 JARUS-FCL.405 General prerequisites and provisions for RPAS instructors

- a) General. An applicant for an RPAS instructor certificate should be at least 18 years of age.
- b) Additional provisions for RPAS instructors providing RPAS instruction. An applicant for or the holder of an RPAS instructor certificate with privileges to conduct RPAS instruction should:
  - 1) hold at least the remote pilot licence and, where relevant, the rating for which RPAS instruction is to be given;
  - 2) have:
    - (i) completed at least 15 hours of RPAS flight time as a remote pilot on the RPA or RPS on which RPAS instruction is to be given, of which a maximum of 7 hours may be in an FSTD representing the type of RPA, if applicable; and
    - (ii) passed an assessment of competence for the relevant category of RPAS instructor on that RPA or RPS;
  - 3) be entitled to act as RPIC during such RPAS instruction.
    - a) Credit towards further ratings and for the purpose of revalidation:
    - b) Applicants for further RPAS instructor certificates may be credited with the teaching and learning skills already demonstrated for the RPAS instructor certificate held.
    - c) Hours flown as an RPAS examiner during skill tests or proficiency checks shall be credited in full towards revalidation provisions for all RPAS instructor certificates held.

#### 14.3 JARUS-FCL.410 RPAS instructor competencies and assessment

All RPAS instructors should be trained to achieve the following competencies:

- i. prepare resources;
- ii. create a climate conducive to learning;
- iii. present knowledge;
- iv. integrate Threat and Error Management (TEM) and crew resource management;
- v. manage time to achieve training objectives;
- vi. facilitate learning;
- vii. assess trainee performance
- viii. monitor and review progress
- ix. evaluate training sessions
- x. report outcome.

#### 14.4 JARUS-FCL.415 Training course

Applicants for an RPAS instructor certificate should have completed an approved course of theoretical knowledge and RPAS instruction. In addition to the specific elements prescribed in this JARUS-FCL Recommendation for each category of RPAS instructor, the course should contain the elements described in JARUS-FCL.410.

#### 14.5 FCL.420 Assessment of competence

14.5.1 An applicant for an RPAS instructor certificate should pass an assessment of competence in the appropriate RPA or RPS to demonstrate to an RPAS examiner qualified in accordance with Subpart F the ability to instruct a student remote pilot to the level required for the issue of the relevant remote pilot licence, associated rating or certificate.

14.5.2 This assessment should include:

- a) the demonstration of the competencies described in JARUS-FCL.410, during pre-flight, post-flight and theoretical knowledge instruction;
- b) oral theoretical examinations on the ground, pre-flight and post-flight briefings and in-flight demonstrations in the appropriate RPA, RPS or FSTD;
- c) exercises adequate to evaluate the RPAS instructor's competencies.

14.5.3 The assessment should be performed on the same class or type of RPA, RPS or FSTD used for the RPAS instruction.

14.5.4 When an assessment of competence is required for revalidation of an RPAS instructor certificate, an applicant who fails to achieve a pass in the assessment before the expiry date of an RPAS instructor certificate shall not exercise the privileges of that certificate until the assessment has successfully been completed.

#### 14.6 JARUS-FCL.425 Validity, revalidation and renewal of RPAS instructor certificates

14.6.1 Validity.

- a) An RPAS instructor certificate should be valid for a period of 3 years.

#### 14.6.2 Revalidation

- a) The applicant should, within the last 12 calendar months preceding the expiry date of the RPAS instructor certificate:
- b) receive an instructor refresher training as an RPAS instructor at an ATO or another RPAS instructor;
- c) pass the assessment of competence in accordance with JARUS-FCL.420

#### 14.6.3 Renewal

- a) If the RPAS instructor certificate has lapsed, the applicant should have, within a period of 12 calendar months before renewal:
  - 1) received an instructor refresher training as an RPAS instructor at an ATO or another RPAS instructor;
  - 2) completed the relevant parts of an RPAS instructor course at an ATO;
  - 3) pass the assessment of competence in accordance with JARUS-FCL.420.

## **SUBPART F - RPAS EXAMINERS**

### **15 Common provisions**

#### **15.1 JARUS-FCL.500 RPAS examiner certificates**

##### **15.1.1 General. Holders of an RPAS examiner certificate should:**

- a) hold an equivalent remote pilot licence, associated rating or certificate to the ones for which they are authorised to conduct skill tests, proficiency checks or assessments of competence and the privilege to instruct for them;
- b) be qualified to act as RPIC on the RPA or RPS during a skill test, proficiency check or assessment of competence when conducted on the RPA or RPS.

##### **15.1.2 Special conditions:**

- a) In the case of introduction of a new RPA or RPS in a State or in an operator's fleet, when compliance with the requirements in this Subpart is not possible, the competent authority may issue a specific certificate giving privileges for the conduct of skill tests and proficiency checks. Such a certificate shall be limited to the skill tests and proficiency checks necessary for the introduction of the new RPA or RPS and its validity shall not, in any case, exceed 1 year.
- b) Holders of a certificate issued in accordance with (b)(1) who wish to apply for an RPAS examiner certificate should comply with the prerequisites and revalidation provisions for that category of RPAS examiner.

#### **15.2 JARUS-FCL.505 Limitation of privileges in case of vested interests**

##### **15.2.1 RPAS examiners should not conduct:**

- a) skill tests or assessments of competence of applicants for the issue of a remote pilot licence, associated rating or certificate:
  - 1) to whom they have provided more than 25 % of the required RPAS flight instruction for the remote pilot licence, associated rating or certificate for which the skill test or assessment of competence is being taken; or
  - 2) when they have been responsible for the recommendation for the skill test, in accordance with JARUS-FCL.030;
- b) skill tests, proficiency checks or assessments of competence whenever they feel that their objectivity may be affected.

#### **15.3 JARUS-FCL.510 Prerequisites for RPAS examiners**

##### **15.3.1 Applicants for an RPAS examiner certificate should demonstrate:**

- a) relevant knowledge, background and appropriate experience related to the privileges of an RPAS examiner;
- b) that they have not been subject to any sanctions, including the suspension, limitation or revocation of any of their remote pilot licences, associated ratings or certificates issued in accordance with this JARUS-FCL Recommendation or national legislation during the last 3 years.

#### **15.4 FCL.515 RPAS examiner standardisation**

- a) Applicants for an RPAS examiner certificate should undertake a standardisation course provided by the competent authority or by an ATO and approved by the competent authority.
- b) The standardisation course should consist of theoretical and practical instruction and should include, at least:

- 1) the conduct of 2 skill tests, proficiency checks or assessments of competences for the remote pilot licences, associated ratings or certificates for which the applicant seeks the privilege to conduct tests and checks;
  - 2) instruction on the applicable provisions in this JARUS-FCL Recommendation and the applicable air operations provisions, the conduct of skill tests, proficiency checks and assessments of competence, and their documentation and reporting;
  - 3) a briefing on the national administrative procedures, provisions for protection of personal data, liability, accident insurance and fees;
- c) Holders of an RPAS examiners certificate should not conduct skill tests, proficiency checks or assessments of competence of an applicant for which the competent authority is not the same that issued the examiner's certificate, unless they have reviewed the latest available information containing the relevant national procedures of the applicant's competent authority.

#### 15.5 JARUS-FCL.520 RPAS examiners assessment of competence

Applicants for an RPAS examiner certificate should demonstrate their competence to an inspector from the competent authority or a senior ROAS examiner specifically authorised to do so by the competent authority responsible for the RPAS examiner's certificate through the conduct of a skill test, proficiency check or assessment of competence in the RPAS examiner role for which privileges are sought, including briefing, conduct of the skill test, proficiency check or assessment of competence, and assessment of the person to whom the test, check or assessment is given, debriefing and recording documentation.

#### 15.6 JARUS-FCL.525 Validity, revalidation and renewal of RPAS examiner certificates

- a) Validity. An RPAS examiner certificate shall be valid for 3 years.
- b) Revalidation. An RPAS examiner certificate shall be revalidated when the holder has, during the validity period of the RPAS examiner certificate:
  - 1) conducted at least 2 skill tests, proficiency checks or assessments of competence every year;
  - 2) attended an RPAS examiner refresher seminar provided by the competent authority or by an ATO and approved by the competent authority, during the last year of the validity period.
  - 3) One of the skill tests or proficiency checks completed during the last year of the validity period in accordance with (1) should have been assessed by an inspector from the competent authority or by a senior RPAS examiner specifically authorised to do so by the competent authority responsible for the RPAS examiner's certificate.
  - 4) When the applicant for the revalidation holds privileges for more than one category of RPAS examiner, combined revalidation of all RPAS examiner privileges may be achieved when the applicant complies with the provisions in (b)(1) and (2) and JARUSFCL.520 for one of the categories of RPAS examiner certificate held, in agreement with the competent authority.
- c) Renewal. If the RPAS examiner certificate has expired, applicants should comply with the provisions of (b)(2) and FCL.1020 before they can resume the exercise of the privileges.



- d) An RPAS examiner certificate should only be revalidated or renewed if the applicant demonstrates continued compliance with the provisions in JARUS-FCL.510 and JARUS-FCL.530.

15.7 JARUS-FCL.530 Conduct of skill tests, proficiency checks and assessments of competence

- a) When conducting skill tests, proficiency checks and assessments of competence, RPAS examiners should:
  - 1) ensure that communication with the applicant can be established without language barriers;
  - 2) verify that the applicant complies with all the qualification, training and experience requirements in this JARUS-FCL Recommendation for the issue, revalidation or renewal of the remote pilot licence, associated rating or certificate for which the skill test, proficiency check or assessment of competence is taken;
  - 3) make the applicant aware of the consequences of providing incomplete, inaccurate or false information related to their training and flight experience.
- b) After completion of the skill test or proficiency check, the RPAS examiner should:
  - 1) inform the applicant of the result of the test. In the event of a partial pass or fail, the RPAS examiner should inform the applicant that he/she may not exercise the privileges of the rating until a full pass has been obtained. The RPAS examiner should detail any further training requirement and explain the applicant's right of appeal;
  - 2) in the event of a pass in a proficiency check or assessment of competence for revalidation or renewal, endorse the applicant's remote pilot licence or certificate with the new expiry date of the associated rating or certificate, if specifically authorised for that purpose by the competent authority responsible for the applicant's remote pilot licence;
  - 3) provide the applicant with a signed report of the skill test or proficiency check and submit without delay copies of the report to the competent authority responsible for the applicant's remote pilot licence, and to the competent authority that issued the RPAS examiner certificate. The report shall include:
    - i. a declaration that the RPAS examiner has received information from the applicant regarding his/her experience and instruction, and found that experience and instruction complying with the applicable requirements in this JARUS-FCL Recommendation;
    - ii. confirmation that all the required manoeuvres and exercises have been completed, as well as information on the verbal theoretical knowledge examination, when applicable. If an item has been failed, the RPAS examiner shall record the reasons for this assessment;
    - iii. the result of the test, check or assessment of competence;
    - iv. a declaration that the RPAS examiner has reviewed and applied the national procedures and requirements of the applicant's competent authority if the competent authority responsible for the applicant's remote pilot licence is not the

same that issued the RPAS examiner's certificate;

- v. a copy of the RPAS examiner certificate containing the scope of his/her privileges as RPAS examiner in the case of skill tests, proficiency checks or assessments of competence of an applicant for which the competent authority is not the same that issued the RPAS examiner's certificate.
- c) RPAS examiners should maintain records for 5 years with details of all skill tests, proficiency checks and assessments of competence performed and their results.
- d) Upon request by the competent authority responsible for the RPAS examiner certificate, or the competent authority responsible for the applicant's remote pilot licence, RPAS examiners should submit all records and reports, and any other information, as required for oversight activities.