



Safety Requirements Document for Small Unmanned Aircraft Operations

Civil Aviation Department

The Government of the
Hong Kong Special Administrative Region

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Please note that Safety Requirements Document is available on the Electronic Portal for Small Unmanned Aircraft:

<https://esua.cad.gov.hk/web/information/doc>

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RECORD OF ISSUE

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SUMMARY OF MAIN AMENDMENTS

New, amended and corrected text are indicated by a revision bar as set out in Section 1.6 of this document. The following is a summary of main amendments made in this revision for easy reference:

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Chapter 1 – Introduction

1.1 The Small Unmanned Aircraft Order

- 1.1.1 Small Unmanned aircraft (“SUA”) have been gaining popularity over the past few years both in Hong Kong and worldwide. The uses of SUA range from recreation and STEM education to professional deployment for powerline inspections, surveying, 3D mapping, search and rescue operations, aerial photography and filming, drone shows, etc. To grasp the tremendous potential in SUA applications in tandem with the evolving technology and innovation, while also safeguarding aviation and public safety, a forward-looking regime for regulating and supporting SUA operations is required. The Small Unmanned Aircraft Order (“SUA Order”), Cap. 448G of the Laws of Hong Kong, is a piece of subsidiary legislation made under the Civil Aviation Ordinance (Cap. 448) that aims to achieve this objective. The SUA Order will become effective on 1 June 2022.
- 1.1.2 Under the SUA Order, SUA operations will be regulated under a risk-based approach. Based on the weight of the SUA and the operational risk level, SUA operations of different risk levels will be subject to the corresponding regulatory requirements. These requirements may include registration and labelling of SUA, registration of remote pilots, training and assessment, equipment, operating requirements and insurance. To strike a balance between protecting public safety and facilitating the development of SUA, flexibility has been built in the SUA Order to cater for different types of SUA operations and the rapid development of SUA.

1.2 Transitional Period

- 1.2.1 The SUA Order shall commence on 1 June 2022. To allow users and members of the public to get familiar with and prepare for compliance with the regulatory requirements, except for offences in relation to endangering acts, Restricted Flying Zones and enforcement (which are required having regard to aviation safety, emergency, public safety/order or security and hence should take immediate effect upon commencement), a six-month grace period ending on 30 November 2022 will be given as a transitional arrangement. This would allow the community to smoothly transit into the new regime, including but not limited to familiarising themselves with the new requirements, registering their SUA, and as remote pilots, complying with SUA equipment requirements, and for advanced operations, making applications for approval of SUA training organisation, completing training and assessment by remote pilots, procuring insurance and making necessary applications for permission for operation before flight.
- 1.2.2 Legislation aside, publicity and education are equally instrumental to promoting public awareness and reducing the enforcement burden. The Civil Aviation Department (“CAD”) will continue to work proactively to enhance public awareness on safe

operation of SUA through different channels like television and radio, CAD website, publications, etc. CAD will also continue to strengthen the collaboration with different stakeholders such as SUA organisations and manufacturers on safety promotion.

1.3 Purpose of this Document

- 1.3.1 Pursuant to section 63 of the SUA Order, this Safety Requirements Document (“SRD”) is published to provide guidance on the operation of any provisions of the SUA Order, including guidance on how to comply with the requirements of this Order. It is important to note that compliance with this SRD does not confer immunity from any legal obligations in Hong Kong. The statutory provisions referred to or cited in this SRD are those in force under the SUA Order.
- 1.3.2 It should also be noted that a person does not incur any criminal liability only because the person has contravened a provision of a safety requirements document. However, if in any legal proceedings, the court is satisfied that a safety requirements document is relevant to determining a matter that is in issue in the proceedings —
- (a) the document is admissible in evidence in the proceedings; and
 - (b) proof that the persons contravened or did not contravene a relevant provision of the document may be relied on by any party to the proceedings as tending to establish or negate the matter.
- 1.3.3 For specific SUA operations or SUA related aspects, different documents such as **SUA Advisory Circulars** (“AC”) or Safety Notices (“SN”) are issued to provide guidance on the related regulatory and/or safety requirements. SUA responsible persons, remote pilots and permission holders have the responsibility to ensure understanding and compliance with the respective requirements. Please refer to Advisory Circular No. AC-001 which will be reviewed and updated from time to time, for the current list of documents.

1.4 Definition of SUA and Weight

- 1.4.1 International requirements in civil aviation are set out by the International Civil Aviation Organization (“ICAO”) in the Annexes to the Convention on International Civil Aviation, signed in Chicago on 7 December 1944. Following the principles as set out by the ICAO, “unmanned aircraft” is defined under section 2 of the SUA Order as *a power-driven machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth’s surface, which is operated with no pilot on board.*
- 1.4.2 Taking local environment into account and benchmarking with practices in other major jurisdictions, the SUA Order covers and has defined SUA as an unmanned aircraft in

respect of a flight if its weight does not exceed 25 kilograms (“kg”) at all times during the flight.

1.4.3 In determining the weight of an SUA,

- (a) everything installed in, carried by or attached to the aircraft is to be taken into account; and
- (b) if the flight is partly within Hong Kong and partly outside Hong Kong – the part of the flight outside Hong Kong is not to be taken into account.

1.5 Interface with Other Legislation

1.5.1 To align with the purposes of the SUA Order, consequential amendments were made to the following Regulations and Orders, such that they will not apply to or in relation to SUA as defined under the SUA Order.

- (a) Air Transport (Licensing of Air Services) Regulations (“Cap. 448A”);
- (b) Air Navigation (Hong Kong) Order 1995 (“Cap. 448C”); and
- (c) Civil Aviation (Insurance) Order (“Cap. 448F”).

It should be reminded that operations of SUA would still be subject to other legislation in force.

1.5.2 For the avoidance of doubt, unmanned aircraft weighing above 25 kg are outside the scope of the SUA Order and they will continue to be subject to all the relevant provisions of civil aviation legislation, such as Cap. 448A, 448C, and 448F.

1.5.3 The SUA Order was made under the Civil Aviation Ordinance (Cap. 448) with the primary purpose of protecting aviation and public safety. It is not meant to replace other legislative or regulatory requirements under the purview of other Government bureaux / departments or regulatory authorities. SUA owners and remote pilots shall still observe all such other requirements governed by other legislation in Hong Kong, such as the Telecommunications Ordinance and Personal Data (Privacy) Ordinance, etc.

1.6 Format of this Document

1.6.1 Reference in this SRD to male gender should be understood to include both male and female genders.

1.6.2 Reference in this publication to the Civil Aviation Ordinance (Cap. 448) and its subsidiary legislation are to those in force on and after 1 June 2022.

1.6.3 This SRD and any associated referenced documents will be periodically reviewed to

ensure that they remain relevant and appropriate. New, amended and corrected text will be indicated by a revision bar.

1.7 Anti-bribery Reminder

- 1.7.1 Anyone, while having dealings of any kind with the CAD, should not offer advantage to the CAD officers, or else he may commit an offence under section 4(1) and/or section 8 of the Prevention of Bribery Ordinance (Chapter 201 of the Laws of Hong Kong), and be liable to a maximum penalty of a fine of \$500,000 and imprisonment for 7 years.

1.8 Document Administration

- 1.8.1 Permissions, certificates, exemptions and other related documents issued under the SUA Order are usually valid for a finite period and have a notified expiry date.
- 1.8.2 SUA responsible persons, remote pilots and permit holders are responsible for ensuring that their permissions, certificates, exemptions and other related documents remain valid during the SUA operations. Operations conducted under invalid permissions, certificates, exemptions or other related documents issued under the SUA Order are in breach of the laws.
- 1.8.3 Various applications such as registration, permission and advanced rating can be made in accordance with the SUA Order. A person who is aggrieved by any of the decisions made as set out in the SUA Order may apply to the CAD for a review of such decision. Under the SUA Order, an appeal mechanism is established to handle requests for review on decisions under the SUA Order in connection with applications for registration/ rating/ approval/ authorisation/ permission and details can be referred to Part 5 Division 2 of the SUA Order.

1.9 Glossary of Terms

- 1.9.1 In this SRD, the definition of the terms listed below applies:
- (a) **Dangerous Goods** have the meaning defined under section 2 of the SUA Order.
 - (b) A **flight** of an SUA begins at the time when any component of the aircraft first moves for the purpose of taking off; and ends at the time when the aircraft next comes to rest, pursuant to section 5 of the SUA Order.
 - (c) **Information** has the meaning defined under section 2 of the SUA Order.
 - (d) A person **operates** an SUA for a flight if the person conducts the flight of the aircraft by operating its flight controls manually; or when the aircraft flies

automatically during the flight – by monitoring the aircraft’s course and remaining able to intervene and change the aircraft’s course at any time during the flight, pursuant to section 4 of the SUA Order.

- (e) **Operating requirement** has the meaning defined under section 2 of the SUA Order.
- (f) **Prescribed fee** in relation to a matter, means a fee prescribed for the matter in the Schedule, pursuant to section 2 of the SUA Order.
- (g) **Rating** in relation to a registered remote pilot, means the rating that is assigned to the remote pilot under section 32 of the SUA Order and that is in force, pursuant to section 2 of the SUA Order.
- (h) **Registered remote pilot** means a person who is registered under section 29 of the SUA Order and whose registration is in force, pursuant to section 2 of the SUA Order.
- (i) **Registered small unmanned aircraft** means an unmanned aircraft that is registered under section 25 of the SUA Order and the registration of which is in force, pursuant to section 2 of the SUA Order.
- (j) **Remote Pilot** means a natural person who operates the SUA for the flight, pursuant to section 2 of the SUA Order.
- (k) **Remote Pilot Certificate** means a remote pilot certificate issued under section 29(4)(a), 30(5)(a), 32(6) or 33(7) of the SUA Order, pursuant to section 2 of the SUA Order.
- (l) **Responsible Person** has the meaning defined under section 2 of the SUA Order, which is further elaborated in paragraph 3.2 of this SRD.
- (m) **Restricted Flying Zone (RFZ)** means an area that is designated under section 19(1), (2) or (3) of the SUA Order as a restricted flying zone and the designation of which is having effect, pursuant to section 2 of the SUA Order.
- (n) **Small Unmanned Aircraft (SUA)** is defined under section 3(1) and 3(3) of the SUA Order, and it is elaborated in Paragraph 1.4 of this SRD.
- (o) **SUA registration certificate** means an SUA registration certificate issued under section 25(5)(b) or 26(5)(a) of the SUA Order, pursuant to section 2 of the SUA Order.
- (p) **Unmanned Aircraft (UA)** means a power driven machine that can derive support

in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface, which is operated with no pilot on board, pursuant to section 2 of the SUA Order.

- (q) **Weight** of an SUA is defined under section 3(3) of the SUA Order, which is also covered in Paragraph 1.4 of this SRD.

1.9.2 For easy reference, a list of commonly used abbreviations related to the regulatory requirements of SUA is given in [Table 1](#).

Table 1 – Abbreviations

Abbreviation	Description
AC	Advisory Circular
AGL	Above Ground Level
ATC	Air Traffic Control
ATO	Approved Training Organisations
EVLOS	Extended Visual Line of Sight
CAD	Civil Aviation Department
Cat A1	Category A1
Cat A2	Category A2
Cat B	Category B
DGCA	Director-General of Civil Aviation
eSUA	Electronic Portal for Small Unmanned Aircraft
FPV	First-person view
ft	Feet
g	Gram
GPS	Global Positioning System
ICAO	International Civil Aviation Organization
kg	Kilogram
km/hr	Kilometre per hour
m	Metre
RFZ	Restricted Flying Zone
SRD	Safety Requirements Document
SUA	Small Unmanned Aircraft
UAS	Unmanned Aircraft System
VLOS	Visual Line of Sight
VO	Visual Observer

1.10 Electronic Portal for Small Unmanned Aircraft (“eSUA”)

- 1.10.1 To assist users of SUA and the public, the CAD has developed and made available a dedicated information system, *Electronic Portal for Small Unmanned Aircraft (“eSUA”)*, to facilitate the promulgation of useful information for SUA operations and the application for the various SUA registration / permission process.
- 1.10.2 eSUA is available in the form of a mobile application and a web portal with details as follows :
- (a) mobile application (available for download on App Store of Apple Inc. ©, Google Play Store of Google Inc. ©, Xiaomi Market ©, and Huawei AppGallery ©); and
 - (b) web portal (<https://esua.cad.gov.hk/>).
- 1.10.3 To support the operation of the SUA Order, eSUA will be used as a means to publish SUA related information that is considered appropriate in the circumstances to bring it to the attention of the persons that are considered likely to use the system. Please visit the eSUA for the latest information and requirements promulgated by the CAD from time to time and prior to SUA operations to ensure safety and compliance with the applicable requirements.

Chapter 2 – Categorisation of SUA and SUA Operations

2.1 Risk-based Regulatory Approach

2.1.1 Under the SUA Order, SUA operations are regulated under a risk-based approach according to:

- (a) the **weight** of SUA; and
- (b) operational **risk level**.

2.1.2 The regulatory requirements apply to all users alike, regardless of recreational or commercial purposes as regulatory requirements are based on risks posed to public safety but not on purposes.

2.2 Categorisation of SUA

2.2.1 Based on the weight of the SUA, SUA within Hong Kong are categorised as follows :

- (a) **Category A1 SUA**
("Cat A1 SUA") if its weight does not exceed 250 grams ("g") at all times during the flight;
- (b) **Category A2 SUA**
("Cat A2 SUA") if its weight exceeds 250 g at any time during the flight but does not exceed 7 kg at all times during the flight;
- (c) **Category B SUA**
("Cat B SUA") if its weight exceeds 7 kg at any time during the flight but does not exceed 25 kg at all times during the flight.

2.2.2 In determining the weight, everything installed in, carried by or attached to the SUA is to be taken into account. For example, the weight of any battery, fuel or payload carried by the SUA, such as cameras, lens filters, rotor blade guards, stickers, lights, etc. are considered as part of the weight.

2.3 Exemption for Category A1 SUA

2.3.1 With a view to balancing the operational need as well as the public and aviation safety, an exemption (G.N. 2303) has been made for Category A1 SUA that are equipped with a safety system capable of performing all the functions specified in or pursuant to section 13 of the Order for the purposes of section 11(1)(d) of the Order.

Note: Some typical examples of such Category A1 SUA are Autel EVO Nano series and DJI Mini series, etc.

- 2.3.2 Under the exemption, such Category A1 SUA can be operated within all the operating requirements applicable to Category A2 SUA, and are subject to other regulatory requirements applicable to Category A2 SUA, e.g. registration and labelling of SUA, registration of remote pilot, equipment etc.
- 2.3.3 For the sake of readability, Category A1 SUA fulfilling the requirements and conditions above are referred as Category A2 SUA for the rest of this document.

2.4 Categorisation of SUA Operations and the Corresponding Regulatory Requirements

- 2.4.1 Operations of Category A1 or Category A2 SUA, within the applicable operating requirements as specified by the CAD, are categorised as “**Standard Operations**”. Prior permission from the CAD will not be required before such a flight. If an SUA is operated for a flight in the form of “standard operations”, it must be operated in compliance with all operating requirements applicable to the aircraft at all times during the flight, pursuant to section 15(1) of the SUA Order. Please refer to Chapter 7 of this SRD for more details on standard operations.
- 2.4.2 All other operations, namely operations of a Category B SUA, operations of a Category A1/A2 SUA exceeding the applicable operating requirements as specified by the CAD as “standard operations” (except wholly within an enclosed area), operations of an SUA within a restricted flying zone (“RFZ”) (except wholly within an enclosed area) or carrying any dangerous goods, are known as “**Advanced Operations**”. They involve higher risks and hence, prior permission from the CAD will be required before such a flight. Please refer to Chapter 8 of this SRD for more details on advanced operations. Different categories of SUA operations are subject to the corresponding regulatory requirements based on risk levels and details are stipulated in [Table 2](#).
- 2.4.3 All SUA responsible persons, remote pilots or any other person who knowingly causes or permits an SUA to be operated for flight shall refer to the details as set out in this SRD for the operations of SUA in compliance with the SUA Order.

Table 2 – Summary Table of SUA Regulatory Requirements

Category of Operations	Standard Operations		Advanced Operations
Criteria	Cat A1 SUA (weight ≤ 250 g) <i>and</i> (Within Cat A1 SUA operating requirements)	Cat A2 SUA (250 g < weight ≤ 7 kg)* <i>and</i> (Within Cat A2 SUA operating requirements)	(i) Cat A1 or A2 SUA but <u>exceeding</u> the applicable operating requirements; (ii) Cat B SUA (7 kg < weight ≤ 25 kg); (iii) Operations involving carriage of dangerous goods; <u>or</u> (iv) Operations in restricted flying zone
Registration and Labelling Requirements (see Chapter 3)			
Registration & labelling of SUA	×	✓	✓
Min. age of SUA responsible person	×	18	18
Registration of Remote Pilots (see Chapter 4)			
Registration of remote pilot	×	✓	✓
Min. age of remote pilot	×	14	14
Advanced Rating Training and Assessment Requirements (see Chapter 5)			
Training & assessment of remote pilots with Advanced Rating	×	×	✓
Equipment Requirements (see Chapter 6)			
Safety System (flight log & geo-awareness)	×	✓	✓
Operating Requirements (see Chapter 7 and Chapter 8)			
Operating requirements	✓ (Cat A1 SUA operating requirements)	✓ (Cat A2 SUA operating requirements)	✓ (As specified in Permission)
Permission from the CAD prior to operations	×	×	✓
Insurance Requirements (see Chapter 9)			
SUA insurance for third-party liability (bodily injury and/or death)	×	To be applicable at a later time ⁽¹⁾	✓
Min. coverage	×	HKD 5 million ⁽¹⁾	HKD 10 million

* Also applicable to Cat A1 SUA under exemption (G.N. 2303)

Note (1): The mandatory insurance requirement for Standard Category A2 Operations will commence at a later date to be specified by the Director-General of Civil Aviation (“DGCA”) by notice published in the Gazette.

Chapter 3 – SUA Registration and Labelling

3.1 SUA Requiring Registration

3.1.1 Under the SUA Order, the following types of SUA shall be registered, and upon successful registration, an SUA registration certificate will be issued to the registrant.

- (a) Category A1 SUA that are to be used for advanced operations;
- (b) Category A2 SUA; and
- (c) Category B SUA.

Note: These requirements are also applicable to privately-built (e.g. DIY) SUA. It is not a mandatory requirement for a Category A1 SUA to be registered provided that it is operated within applicable operating requirements. However, Category A1 SUA may be registered on a voluntary basis.

3.1.2 Upon successful registration, an SUA registration certificate will be issued to the registrant.

3.2 SUA Responsible Person

3.2.1 Pursuant to section 2 of the SUA Order, **responsible person** in relation to an SUA means the person who is named under section 25(5)(a) of the SUA Order as the responsible person of the aircraft.

3.2.2 For registration of SUA, the registrant, normally the SUA owner, should be a natural person of at least 18 years of age, body corporate or unincorporated body. Upon successful registration, the registrant will be regarded as the “responsible person” of the SUA concerned.

Note: Examples would include the owner of the SUA who has a legal custody and control of the aircraft, or the person in possession of the aircraft under a hiring/ hire purchase agreement.

3.3 Means of Application for SUA Registration

3.3.1 The application for registration can be submitted to the CAD electronically via eSUA.

3.3.2 For enquiry or assistance regarding the submission of applications via eSUA, applicants may contact the CAD via email at esua@cad.gov.hk.

3.4 SUA Registration and Labelling Processes

- 3.4.1 To complete the SUA registration process, the applicant shall provide all required information and documents and pay the prescribed fee¹ at the submission of the application through eSUA.
- 3.4.2 After the submission of application for SUA registration, the applicant will be issued with a registration label for the registered SUA which contains a unique registration number, an identification mark consisting of a QR code and a verification code (see [Figure 1](#) in paragraph 3.4.5). Local applicant shall make sure that the postal address is correct as the registration label will be sent by post. For non-local applicants, they will need to collect the label at the CAD Headquarters or designated location by the CAD in person.
- 3.4.3 For applicants requiring special assistance (for instance, a large number of SUA need to be registered within a short period of time for a special event), they may contact the CAD via email at esua@cad.gov.hk for completing the registration process.
- 3.4.4 When the registration label is received, the applicant shall:
- (a) Affix the registration label properly on the SUA as required in paragraph 3.4.5 below;
 - (b) Take a photo of the SUA with the affixed label in sight;
 - (c) Log in eSUA user account;
 - (d) Enter the verification code that came with the label package; and
 - (e) Upload the photo to the system.
- 3.4.5 The registration label (illustrated by [Figure 1](#)) received by the SUA responsible person during the registration process, shall be affixed on the external flat surface of SUA's main body, in a way that the registration number and identification mark could be clearly visible. The surface should not be detachable from the SUA during the flight.

Note: As SUA comes in different shapes and sizes, a general guide is to affix the registration label on a visible and non-detachable surface. It should be affixed on the main body of the SUA instead of a part that can be easily removed or replaced, such as rotor, rotor guard, battery or payload.

¹ The CAD will not charge fees at the initial stage of the launch of the new SUA regulatory regime (from 1 June 2022 until 31 May 2025).



Figure 1 – Illustration of a Registration Label

- 3.4.6 Upon successful registration, an electronic SUA registration certificate will be issued to the registrant via the registered email address, and the relevant record will be available for review on eSUA.
- 3.4.7 For the avoidance of doubt, there should only be one responsible person of an SUA at any one time.
- 3.4.8 Pursuant to section 42(1) of the SUA Order, if there is any change in the information provided for registration (e.g. the contact number, address, etc.), the responsible person shall notify the CAD within 14 days after the date on which the changes occur via the eSUA.

Note: For some special changes such as the changing of name of the holder of eSUA accounts which may not be catered for via eSUA, the CAD can be notified via email to esua@cad.gov.hk.

- 3.4.9 [Figure 2](#) provides an overview of the SUA registration process.

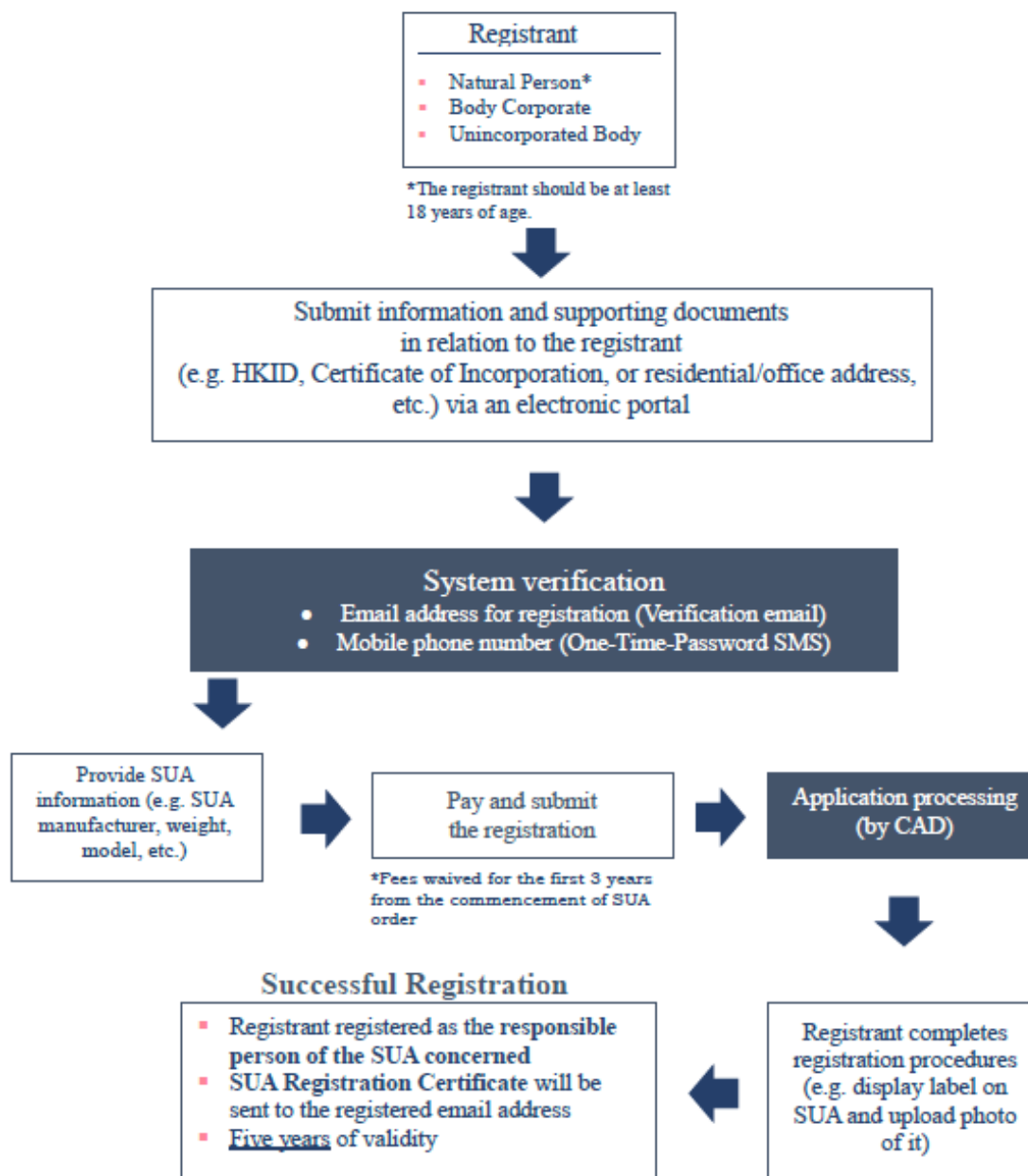


Figure 2 – Flowchart of the registration of SUA

3.5 Information and Documents Normally Required for SUA Registration

3.5.1 For a **natural person** to register as an SUA responsible person, the following information and documents shall be provided by the applicant at the time of registration:

- (a) Full name of the person (in English, and Chinese if available);
- (b) Date of birth;
- (c) Identity document number as shown on Hong Kong Identity Card (“HKID”) for Hong Kong residents, or valid travel document (e.g. passport) for non-Hong Kong residents;

- (d) Copy of the identity document showing details stated in (a), (b) and (c) above;
- (e) Contact information (e.g. mobile phone number, residential address and email address);
- (f) Copy of address² proof issued within the last three months from the application date.

3.5.2 For a **body corporate** to register as an SUA responsible person, the following information and documents shall be provided by the applicant at the time of registration:

- (a) Full name of the body corporate (in English, and Chinese if available);
- (b) Company registration number as shown on Certificate of Incorporation / Certificate of Registration;
- (c) Copy of Certificate of Incorporation / Certificate of Registration showing details stated in (a) and (b) above;
- (d) Contact information (e.g. office telephone number and office address);
- (e) Information of contact person (e.g. full name, position, mobile phone number and email address);
- (f) Copy of address proof² issued within the last three months from the application date.

3.5.3 For an **unincorporated body** to register as an SUA responsible person, the following information and documents shall be provided by the applicant at the time of registration:

- (a) Full name of the unincorporated body (in English, and Chinese if available);
- (b) Supporting document of unincorporated body (e.g. Registration of Society, etc.)
- (c) Contact information (e.g. office telephone number and office address);
- (d) Information of a partner in, manager of or any other person concerned in the management of the unincorporated body (e.g. full name, position, mobile phone number, address, copy of HKID/ passport and email address);
- (e) Copy of address proof² of the person stated in (d) issued within the last three months from the application date.

3.5.4 For the SUA, including **manufactured products** and **privately-built SUA**, the following information should be provided at the time of registration:

- (a) Name of manufacturer (if applicable);
- (b) Model name or model number (if applicable);

² Acceptable address proof includes utility or telecommunication bills, correspondences or other documents, issued by banks, insurance companies, government departments, education institutes, international charitable organisations or charitable organisations registered in Hong Kong.

- (c) Type of SUA (e.g. multi-copter, fixed-wing, helicopter, etc.);
- (d) Serial number of aircraft body or flight controller (if any); and
- (e) Weight of SUA³.

3.6 Validity and Renewal of SUA Registration Certificate

3.6.1 The maximum validity period of SUA registration certificate is **five** years. A shorter validity period may be specified on the SUA registration certificate if deemed necessary by the DGCA⁴. The validity period will be specified on the SUA registration certificate.

Example: SUA registration certificate was first issued on *1 June 2023*, to be valid until *31 May 2028*.

3.6.2 The SUA registration certificate may be renewed at any time during the **four months before expiry**. To complete the application for renewal, SUA responsible persons shall provide updated information as required in paragraph 3.5 for verification.

3.6.3 If the renewal application is made during the four months before expiry date as per paragraph 3.6.2, the renewed SUA registration certificate will be effective from the expiry date, with a maximum validity of five years.

Example: SUA registration certificate was first issued on *1 June 2023*, to be valid until *31 May 2028*. Responsible person applies for renewal on *1 February 2028* (within four months before expiry), the renewed SUA registration certificate is valid from *1 June 2028* to *31 May 2033*.

3.6.4 If the renewal application is made **on or after the expiry** of the SUA registration certificate, the renewed SUA registration certificate will be effective from the date on which the certificate is renewed, with a maximum validity of five years.

Example: SUA registration certificate was first issued on *1 June 2023*, to be valid until *31 May 2028*. Responsible person applies for renewal on *1 August 2028* (within one year after expiry date) and the SUA registration certificate is issued in respect of the renewal on *15 August 2028*, the renewed SUA registration certificate is valid from *15 August 2028* to *14 August 2033*.

³ Everything installed in, carried by or attached to the aircraft is to be taken into account. e.g. batteries, cameras, payloads and equipment etc. are included.

⁴ For instance, for visitors / tourists to Hong Kong who are non-Hong Kong residents, non-Hong Kong body corporates and unincorporated bodies, a validity period of a maximum of six months may be provided on initial issue of the certificate to allow their short-term use of SUA in Hong Kong. Renewal will be subject to consideration by the CAD.

- 3.6.5 An SUA registration certificate that has expired for a period **of more than one year** is not renewable, the responsible person has to file a new application to register the SUA and obtain a new certificate.

Example: SUA registration certificate was first issued on *1 June 2023*, to be valid until *31 May 2028*. Responsible person applies for renewal on *1 August 2029* (more than one year after expiry date). A new application of the certificate is required.

3.7 Cancellation of the SUA Registration

- 3.7.1 The SUA responsible person shall apply to the CAD for de-registering the SUA via eSUA under different circumstances. These include but are not limited to situations where:

- (a) the SUA is destroyed;
- (b) the SUA is permanently withdrawn from use;
- (c) the SUA is missing;
- (d) the registered responsible person has transferred legal custody and control of the SUA; or
- (e) the SUA is modified to a substantial extent that it can no longer be reasonably considered to be the same SUA originally registered. (Refer to Paragraph 3.8 for more details on extent of modification requiring the cancellation of SUA registration)

- 3.7.2 When the ownership or the legal custody of an SUA is transferred, the outgoing responsible person is required to notify the CAD as stipulated in section 42 of the SUA Order. The outgoing responsible person will need to first de-register the SUA whilst the new owner of the SUA should then register the SUA in accordance with section 3.4 of this SRD.

3.8 SUA Modification

- 3.8.1 SUA modification should not be in a substantial extent that the SUA can no longer be reasonably considered to be the same originally registered SUA. Hence, the modification of a registered SUA may require the **SUA responsible person to deregister the SUA and register it as a new SUA**. This applies if the alteration may change:

- (a) the type of SUA (e.g. from battery-powered SUA to liquid-fuel powered SUA, from quadcopter to hexacopter, from vertical take-off and landing aircraft to fixed wing aircraft, etc.);
- (b) the weight to an extent that will alter the Category of SUA (e.g. from Category A2 SUA to Category B SUA); or

(c) the original/ designed flight performance or characteristics.

3.8.2 Generally speaking, replacement of **(i) broken or damaged parts with new ones of the same design**, or **(ii) swappable components or components specified by the manufacturer or constructed for the type of SUA** are acceptable alternations **NOT** requiring re-registration of the SUA.

3.8.3 Examples of acceptable parts replacement **NOT requiring re-registration** of the SUA are listed below (but not limited to) for reference:

- (a) rotor blade
- (b) blade guard
- (c) battery
- (d) interchangeable payload (e.g. camera, remote sensor, etc.)
- (e) interchangeable accessories (e.g. camera lens and filters, stabilisation gimbal, mounts, etc.)
- (f) landing gear, rotor arm, fairing
- (g) memory storage devices (e.g. SD card, etc.)
- (h) navigational equipment (e.g. GPS receiver, antenna, etc.)
- (i) safety or failsafe equipment (e.g. anti-collision light, etc.)
- (j) signal transmitter and receiver
- (k) decals, paint scheme

3.9 Miscellaneous

3.9.1 If the registration label is lost, defaced or destroyed, the SUA responsible person may apply to the CAD for the re-issuance of the label. The application for re-issuance must be:

- (a) made provided that the SUA registration application has completed as described in paragraph 3.4; and
- (b) accompanied by the prescribed fee.

Chapter 4 – Registration of Remote Pilots

4.1 Remote Pilot Requiring Registration

4.1.1 Under the SUA Order, remote pilots operating the following types of SUA shall register as registered remote pilots:

- (a) Category A1 SUA used for advanced operations;
- (b) Category A2 SUA; and
- (c) Category B SUA.

4.1.2 An electronic **remote pilot certificate** will be issued upon successful registration. It must be shown for inspection and copies shall be produced if an authorised officer requires so for enforcement purpose. Remote pilots should always have the remote pilot certificate on hand during SUA operations.

4.1.3 Remote pilots for Standard Category A1 Operations are not required to register themselves as registered remote pilots. As the requirements or parameters may be reviewed from time to time in light of technological advancement, all remote pilots (both registered and non-registered) are advised to go through the important safety information package for the latest updates of regulatory requirements, operating parameters and points to note in operation in other fields, such as privacy, etc.

4.1.4 All remote pilots (both registered and non-registered) are reminded to comply with the applicable operating requirements, safety guidelines as published by the CAD and observe other applicable laws of Hong Kong to ensure the safe operations of SUA.

4.2 Registered Remote Pilot

4.2.1 Pursuant to section 2 of the SUA Order, registered remote pilot means a person who is registered under section 29 of the SUA Order and whose registration is in force.

4.2.2 The requirement of remote pilot registration is applicable to all Hong Kong and non-Hong Kong residents (e.g. tourists / visitors) intending to fly an SUA that meets the criteria in paragraph 4.1.1 above in Hong Kong. One must have attained the **age of 14** for registration as a remote pilot.

4.3 Means of Application for Remote Pilot Registration

- 4.3.1 The application for registration can be submitted to the CAD electronically via eSUA.
- 4.3.2 For applicants requiring special assistance, they may contact the CAD via email at esua@cad.gov.hk.

4.4 Remote Pilot Registration Processes

- 4.4.1 To complete the registration process, the applicant shall provide all required information and documents, go through the important safety information package on aviation knowledge and local regulations as well as SUA Flight Safety Tips on safe SUA operations and potential privacy issues, and pay the prescribed fee. For details on the fees to be paid, please refer to Chapter 12 of this SRD.
- 4.4.2 Upon successful application for registration, the applicant would be provided with an electronic remote pilot certificate with “standard” rating as default, details of which are specified in Chapter 5 of this SRD. If the account particulars of the remote pilot concerned was later found incomplete, incorrect or not updated, the electronic remote pilot certificate previously issued to the remote pilot will be temporarily suspended until the updated information is received and verified.
- 4.4.3 [Figure 3](#) provides an overview of the remote pilot registration with “standard” rating.

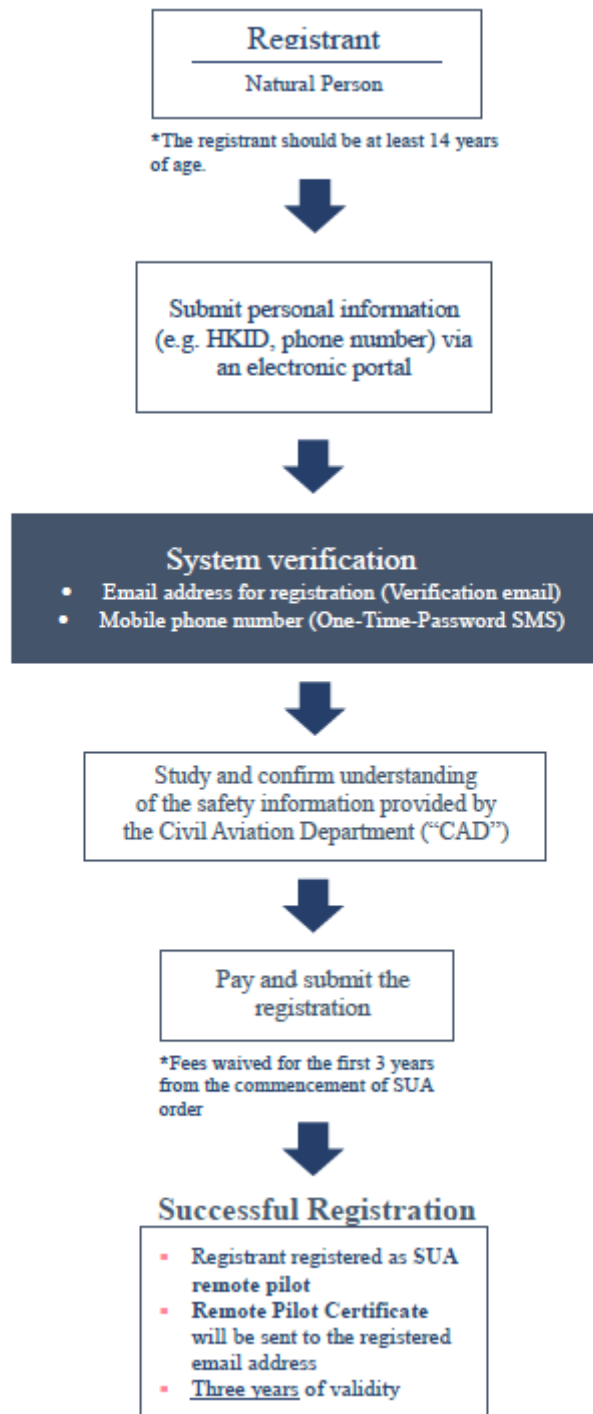


Figure 3 – Flowchart of the registration of remote pilot with “standard” rating

4.5 Information and Documents Normally Required for Remote Pilot Registration

4.5.1 The following information and documents shall be provided by the applicant at the time of registration:

- (a) Full name of the remote pilot (in English, and Chinese if available);
- (b) Date of birth;
- (c) Identity document number as shown on Hong Kong Identity Card for Hong Kong residents, or valid travel document (e.g. passport) for non-Hong Kong residents;
- (d) Copy of personal identification document showing details stated in (a), (b) and (c) above;
- (e) Contact information (e.g. mobile phone number, residential address and email address);
- (f) Personal and contact information of the guardian (for persons under the age of 18);
- (g) Copy of address proof⁵ issued within the last three months (Note: For persons below the age of 18 who cannot provide a valid address proof, the address proof of the guardian is required.)

4.6 Validity and Renewal of Remote Pilot Certificate

4.6.1 The maximum validity period of remote pilot certificate is **three years**. A shorter validity period may be specified on the remote pilot certificate if deemed necessary by the DGCA⁶. The validity period will be specified on the remote pilot certificate.

Example: Remote pilot certificate was first issued on *1 June 2023*, to be valid until *31 May 2026*.

4.6.2 The remote pilot certificate may be renewed at any time during the **four months before expiry date**. To complete the application for renewal, remote pilots will be required to provide updated information as required in paragraph 4.5 for verification and go through the safety awareness information as described in paragraph 4.4. The renewal of remote pilot certificate is subject to CAD's considerations.

4.6.3 If the renewal application is made during the four months before expiry date as per

⁵ Acceptable address proof includes utility or telecommunication bills, correspondences or other documents, issued by banks, insurance companies, government departments, education institutes, international charitable organisations or charitable organisations registered in Hong Kong.

⁶ For instance, for visitors / tourists to Hong Kong who are non-Hong Kong residents a validity period of a maximum of six months may be provided on initial issue of the certificate to allow their short-term use of SUA in Hong Kong. Renewal will be subject to consideration by the CAD.

paragraph 4.6.2, the renewed remote pilot certificate will be effective from the expiry date, with a maximum validity of three years.

Example: Remote pilot certificate was first issued on *1 June 2023*, to be valid until *31 May 2026*. Remote pilot applies for renewal on *1 February 2026* (within four months before expiry), the renewed remote pilot certificate is valid from *1 June 2026* to *31 May 2029*.

- 4.6.4 If the renewal application is made **on or after the expiry date** of the remote pilot certificate, the renewed remote pilot certificate will be effective from the date on which the certificate is renewed, with a maximum validity of three years.

Example: Remote pilot certificate was first issued on *1 June 2023*, to be valid until *31 May 2026*. Remote pilot applies for renewal on *1 August 2026* (within one year after expiry date) and the remote pilot certificate is issued in respect of the renewal on *15 August 2026*, the renewed remote pilot certificate is then valid from *15 August 2026* to *14 August 2029*.

- 4.6.5 A remote pilot certificate that has expired for a period **of more than one year** is not renewable, the remote pilot has to file a new application to register as a remote pilot and obtain a new certificate.

Example: Remote pilot certificate was first issued on *1 June 2023*, to be valid until *31 May 2026*. Remote pilot applies for renewal on *1 August 2027* (more than one year after expiry date), a new application of the remote pilot certificate is required.

Chapter 5 – Ratings of Remote Pilots

5.1 Standard and Advanced Ratings

- 5.1.1 For the registration of remote pilot, one must have completed the review of the safety awareness information package, which covers topics including aviation knowledge, local regulations, SUA Flight Safety Tips on safe SUA operations and potential privacy issues raised by SUA operations (see Paragraph 4.4 for remote pilot registration details). On completion of the registration process, a “**standard rating**” will be assigned to the registered remote pilot.
- 5.1.2 Suitable training helps ensure competency and enhance safety awareness of remote pilots. In addition to the safety awareness information as mentioned above, additional training at advanced level is mandated for remote pilots involving in higher risk operations to protect the general public. As such, remote pilots for advanced operations are required to undergo advanced training and assessment from a training organisation approved by the CAD at their own cost, unless they are able to demonstrate an alternative means of compliance (see paragraph 5.4). Upon successful completion of the training and assessment, the CAD will assign an “**advanced rating**” to such remote pilot for conducting the operations.

Note: The list of SUA Approved Training Organisation (“ATO”) is available on the CAD website for reference.

- 5.1.3 One must be a registered remote pilot (i.e. with “standard rating”) before applying to the CAD for “advanced rating” assignment.

5.2 Remote Pilot Requiring Advanced Rating

- 5.2.1 If a registered remote pilot wishes to conduct an advanced operation, he shall:
- a. obtain an **advanced rating** which will be assigned in his remote pilot certificate issued by the CAD to indicate compliance with the training and assessment requirements; and
 - b. apply for, or ensure that a permission is obtained from the CAD in respect of the advanced operation.
- 5.2.2 Category A1 SUA and Category A2 SUA operating within the applicable operating requirements of Category A1 or A2 SUA are regarded as standard operations. Prior permission from the CAD is not required and the remote pilot is not required to obtain an advanced rating. All operations of a Category B SUA (including those within

Category A1 or Category A2 operating requirements) are regarded as advanced operations and an advanced rating of the remote pilot is hence required for these operations. Details please refer to Chapter 2 of this SRD.

5.3 Competency Training and Assessment for Advanced Rating

- 5.3.1 Unless an alternative means of compliance as detailed in paragraph 5.4 below is demonstrated, to be qualified for an advanced rating assignment on the remote pilot certificate, the applicant must complete an approved advanced competency training course and obtain a pass in both written examination on **theoretical knowledge** and assessment on **practical flying skills**.
- 5.3.2 In this connection, a remote pilot must first complete a training course and/or assessment offered by an SUA Approved Training Organisation (ATO). The training would cover topics related to advanced operations including the use of operations manual and/or checklists, risk assessment, navigation charts, aircraft knowledge, situational awareness, typical advanced operations and emergency procedures, etc. A flight assessment would be arranged to verify the remote pilot's practical flying skills as part of the training. Upon satisfactory completion of the training, remote pilots would receive a Training Certificate, which could be regarded as a proof of competency for the remote pilots in support of their advanced rating application.

5.4 Alternative means of compliance for advanced rating assignment

- 5.4.1 Remote pilots holding certain **proof of competency** issued by other civil aviation authorities (CAAs) may apply for assignment of advanced rating by demonstrating alternative means of compliance as specified in Appendix A of this SRD.
- 5.4.2 As a transitional arrangement (until 30 November 2023), **experienced remote pilots** working under organisations with record of successful SUA operation application to the CAD, may also apply for assignment of advanced rating by demonstrating alternative means of compliance. Please refer to Appendix A of this SRD for more details.

5.5 Application for Advanced Rating

- 5.5.1 The application for advanced rating can be submitted to the CAD electronically via eSUA after the applicant has completed the required competency training and assessment. The applicant shall provide all required information and documents and

pay the prescribed fee at the submission of the application⁷. Upon successful application, the applicant would be provided with a remote pilot certificate with advanced rating specified.

5.5.2 To support the application for advanced rating after undertaking the advanced training course in an SUA ATO, the following information and related documentary proof should be submitted during the application for advanced rating:

- (a) Details of training course attended, e.g. name of SUA ATO, issue date of the training certificate, etc.; and
- (b) Copy of Training Certificate issued by SUA ATO

5.5.3 For advanced rating assignment through alternative means of compliance, details are set out in Appendix A of this SRD.

5.6 Validity and Renewal of Advanced Rating

5.6.1 Remote pilots holding a valid remote pilot certificate may apply for advanced rating assignment at any time during the validity period. The advanced rating will be added to the remote pilot certificate sharing the same expiry date.

Example: Remote pilot certificate was first issued on *1 June 2023*, with validity up to *31 May 2026*. After attending the required training and assessment, remote pilot applies for advanced rating on *1 February 2025*, and upon successful application, the remote pilot certificate with advanced rating added will also be valid until *31 May 2026*.

5.6.2 The remote pilot certificate (with advanced rating specified) may be renewed at any time during the **four months before expiry**. Apart from the required information to be updated as per paragraph 4.5, to continue the validity of advanced rating, remote pilot should also provide:

- (a) Log of flight experience showing a minimum of 2 hours of flying within the past 12 months.

5.6.3 If the renewal application is made during the four months before expiry, the renewed remote pilot certificate with advanced rating specified will be effective from the expiry date, with a maximum validity of three years. Example can be found at paragraph 4.6.3.

5.6.4 If the renewal application is made **on or after the expiry date** of the remote pilot

⁷ The CAD will not charge fees at the initial stage of the launch of the new SUA regulatory regime (from 1 June 2022 until 31 May 2025).

certificate, the renewed remote pilot certificate with advanced rating specified will be effective from the date on which the rating is renewed, with a maximum validity of three years. Example can be found at paragraph 4.6.4.

- 5.6.5 Remote pilot certificate with advanced rating specified that has expired for a period of **more than one year** is not renewable, the remote pilot has to file a new application to register as a remote pilot, obtain a new certificate and advanced rating. Example can be found at paragraph 4.6.5.

Chapter 6 – Safety Equipment of SUA

6.1 Applicability

6.1.1 The equipage of appropriate safety systems in SUA would enhance operational safety, not only by providing essential safety features where necessary but also enhancing the safety awareness of remote pilots. Under the SUA Order, Category A2 SUA, Category B SUA and all Categories of SUA to be used for advanced operations shall be equipped, inter alia, with a **safety system** capable of performing all the functions specified in section 11(1)(d) and 13 of the SUA Order, or in more technical terms, the flight log and geo-awareness functions. This requirement does not apply to a flight wholly within an enclosed area.

6.2 Requirements for Safety System

6.2.1 Pursuant to section 11(1)(d) of the SUA Order, the basic equipage requirements for a Category A2 SUA, Category B SUA and all Categories of SUA to be used for advanced operations include a **safety system capable of performing all the specified functions** in section 13 of the SUA Order that -

- (a) is installed in, carried by or attached to the aircraft, the device used to control the aircraft for the flight, or a component associated with the aircraft or the device; and
- (b) is in use with all the specified functions functioning at all times during the flight.

6.2.2 The functions so specified are :

- (a) the functions of indicating the geographical location, flying altitude and flying speed of the aircraft (relevant information) in real time to the remote pilot of the aircraft during the flight;
- (b) the functions of giving alert to the remote pilot of the aircraft for the flight in real time in relation to any flying restriction as set in the safety system;
- (c) the function of recording the relevant information during the flight;
- (d) the function of recording the date on which and the time at which the relevant information is recorded; and
- (e) any other function that the DGCA may, by notice published in the Gazette, considers it necessary in the interests of aviation safety or public safety.

6.2.3 For the avoidance of doubt, an SUA may only be operated for a flight if it fulfils and can comply with the relevant equipage requirements. The remote pilot, responsible person and any other person who knowingly causes or permits the SUA to be operated have the responsibility to ensure that such requirements are met.

6.3 Geo-awareness Function

- 6.3.1 Safety systems with functions and features fulfilling the requirements specified in paragraph 6.2.2 (a) and (b) above can be understood as having the **geo-awareness function** in technical terms.
- 6.3.2 The geo-awareness function will help improve the situational awareness of the remote pilot, enabling the remote pilot to monitor the safety of the flight and avoid potential breach of airspace restrictions and/or the applicable operating requirements.
- 6.3.3 To protect aviation and public safety and to allow the effective operation of the geo-awareness function, remote pilots should ensure that they have the most up-to-date drone map with all the correct and appropriate geographical indication, alerting and recording functions set-up for use prior to each flight. Drone map updates can be found in the eSUA Drone Map module.

6.4 Flight Log System

- 6.4.1 Safety systems with functions and features fulfilling the requirements specified in paragraph 6.2.2 (c) and (d) above can be understood as having the **flight log** system, which is a system capable of recording by reference to date and time, the geographical location, flying altitude and flying speed of the SUA, using internal or external memory onboard SUA or remotely at the ground station/ remote controller.
- 6.4.2 Pursuant to section 14 of the SUA Order, information recorded by safety system, or in more technical terms, flight data or flight log records, shall be kept for six months beginning on the date on which the flight begins. According to industry practices and information, most SUA currently available in the market would have the capability of storing and keeping such information in the memory devices of a safety system or flight log system for at least six months under normal circumstances. Nonetheless, it is advisable for the responsible person and/or remote pilot to check before each flight whether there is sufficient storage space in the devices and to ensure that the data are properly maintained.

6.5 Additional Safety Equipment

- 6.5.1 Due to the complexity and higher operational risks involved, additional safety equipment, or functions and features in the safety system, such as geo-fencing, may be required for SUA conducting advanced operations. To avoid doubt, a permission granted under section 37(6) of the SUA Order may be subject to conditions specified by the DGCA. Please refer to the AC or related documents issued by the CAD from time to time for specific advanced operations.

Chapter 7 – Standard Operations of SUA

7.1 Overview of Standard Operations

- 7.1.1 Operations of Category A1 SUA or Category A2 SUA within the applicable operating requirements at all times during the flight are categorised as “**Standard Operations**”. Pursuant to section 17(2) of the SUA Order, those operating requirements including, inter alia, the related operating parameters applicable to the different categories, classes or descriptions of SUA are specified by notice published in the Gazette. Such notices can be accessed via the Hong Kong e-Legislation website under the title SUA Order.
- 7.1.2 Prior permission from the CAD will not be required before operating such a flight if it is not operated in an RFZ and not carrying any dangerous goods.
- 7.1.3 This Chapter provides supplementary information as appropriate. An overview of the applicable operating requirements is set out in **Table 3** below.

Table 3 – An Overview of Operating Requirements for Categories A1 SUA and A2 SUA

Operating Requirements	For Category A1 SUA (weight ≤ 250 g)		For Category A2 SUA* (250 g < weight ≤ 7 kg)	
	Time of operations	Daylight hours only		
Maintain visual line of sight (VLOS)	✓			
Maximum flying altitude Above Ground Level (AGL)	100 ft	300 ft		
Maximum speed	20 km/hr	20 km/hr	50 km/hr	
Minimum lateral separation from uninvolved people / structures / vehicles / vessels	10 m	10 m	30 m	
Maximum number of SUA to be operated at the same time by the same remote pilot	1			
Maximum dimensions of SUA	1 m, except that the longest distance between any two rotor blade tips can be up to 1.2 m.			
Carriage of person or animal	No			
Dropping from SUA	None			

*Also applicable to Category A1 SUA under exemption (G.N. 2303)

7.1.4 Operations of Category B SUA ($7\text{kg} < \text{weight} \leq 25 \text{ kg}$) are categorised as “advanced operations”. For the avoidance of doubt, unless otherwise specified or permitted by the CAD, the operating requirements applicable to Category B SUA are the same as those involving Category A2 SUA. Advanced operations require prior permission from the CAD, and the application procedures for permission can be found in Chapter 8 of this SRD.

7.2 Time of Operations

7.2.1 SUA shall not be operated during hours other than daylight hours. Daylight hours mean the time from half an hour before sunrise until half an hour after sunset (both points of time exclusive), sunrise and sunset are determined at surface level.

7.2.2 Remote pilot might acquire information of sunrise and sunset time from, e.g. “Astro & Tide Info” of the Hong Kong Observatory (HKO) mobile app or the HKO Almanac.

7.3 Maintaining Visual Line of Sight Operations

7.3.1 SUA shall be operated within visual line of sight (“VLOS”) at all times during its flight so that the remote pilot is able to clearly see the SUA and the surrounding airspace at all times while it is airborne. The key requirement of any flight is to avoid collisions and a VLOS operation ensures that the remote pilot is able to monitor the aircraft’s flight path and so manoeuvre it clear of anything that it might collide with.

7.3.2 A VLOS is defined as direct and unaided (other than by way of corrective lenses and sunglasses) visual contact with the SUA and the surrounding airspace in which the SUA is operating. VLOS can be maintained by:

- (a) the remote pilot of the SUA, and/or
- (b) a **visual observer** (“VO”), chosen by the remote pilot, who is at the same location as the remote pilot, has good eyesight and is capable of communicating timely and effectively with the remote pilot of the aircraft to avoid collision.

Note : **VO** is a person chosen by the remote pilot, who assists the remote pilot in keeping the SUA in VLOS and safely conducting the flight by unaided visual observation of the SUA. Remote pilots are responsible for ensuring that the VO is competent to undertake his duties.

7.3.3 Supplementing the above definition, while corrective lenses may be used, the use of binoculars, telescopes or any other forms of image enhancing devices are not considered as maintaining VLOS.

7.3.4 In choosing a VO to assist in the maintenance of VLOS with the SUA in accordance with 7.3.2(b), the remote pilot shall ensure that:

- (a) the VO is briefed on the planned flight and what is expected of him, taking into account the prevailing conditions;
- (b) the VO understands that he must maintain direct, unaided visual contact with the SUA at all times to visually monitor the airspace for other aircraft, and the area where the SUA will be operating for any uninvolved people and structures, vehicles or vessels not under the control of the remote pilot, so that he can assist and advise the remote pilot for the safe operation of the SUA;
- (c) the VO understands that he must maintain effective communication with the remote pilot at all times;
- (d) the VO has been briefed and instructed on the actions to take in the event of another aircraft being spotted or a risk of collision is identified;
- (e) the VO has been briefed and instructed on the actions to take in the event of any uninvolved people and structures, vehicles or vessels not under the control of remote pilot being sighted within, or close to, the minimum lateral separation required;
- (f) the VO understands that he must advise the remote pilot if the SUA is proceeding beyond the point at which he is able to monitor its flight path sufficiently to identify a risk of collision;
- (g) the VO is performing the above duties for no more than one remote pilot and his SUA at a time and is not operating a moving vehicle, vessel or aircraft; and
- (h) the remote pilot is satisfied that the VO can perform the above tasks which he may be called upon to perform.

7.3.5 To fulfil the above, the VO shall be at the same location as the remote pilot. Other factors to consider when maintaining VLOS include limitations of the human eyes, visibility, illumination, glare, obstruction, flying speed, aircraft size, shape, colour contrast, etc.

7.3.6 The remote pilot of the SUA concerned has the ultimate responsibility to ensure collision avoidance and operation in a safe airspace.

7.3.7 For the avoidance of doubt, the conditions set out in this paragraph 7.3, if fulfilled, allow the remote pilot of the SUA to conduct **First-person view (FPV)** operation (e.g.

flying with immersive FPV goggles, real-time video feeds displayed on remote controller or mobile phone, etc.), with a visual observer assisting him to keep the SUA away from other aircraft and obstacles. In this connection, it must be noted that images captured by a camera and displayed on a flat screen on the FPV goggles or remote controller afford the remote pilot little by way of depth perception and no peripheral vision. This can make it difficult for the remote pilot to accurately judge speed, relative distance and altitude as well as to maintain sufficient awareness of the area surrounding the aircraft to effectively ‘see and avoid’ obstacles and other aircraft. Given such limitations, the use of FPV equipment must be exercised with due consideration and cautions.

- 7.3.7 If the above conditions set out for VLOS cannot be maintained, the subject SUA operation may become an Extended Visual Line of Sight (“EVLOS”) operation which is a form of advanced operation. Prior permission from the DGCA under section 37 of the SUA Order will be required.

7.4 Maximum Flying Altitude

- 7.4.1 The flying altitude of SUA shall not be higher than 100 ft above ground level for Category A1 SUA and 300 ft above ground level for Category A2 SUA.
- 7.4.2 For the purpose of this provision, “**Above Ground Level (AGL)**” means the altitude at which an aircraft flies from a point on the ground (earth’s surface or water surface).

Note: The “altitude” of the SUA is referenced from the closest point of the ground.

7.5 Maximum Speed

- 7.5.1 The flying speed of the SUA shall not exceed 20 km/hr for Category A1 SUA, and 50 km/hr for Category A2 SUA.

7.6 Minimum lateral separation

- 7.6.1 The distance between a Category A1 SUA and any person who is not involved in the flight operations, or any vehicle, vessel or structure that is not under the control of the remote pilot, measured horizontally and at any altitude, shall not be less than 10 m.
- 7.6.2 The distance between a Category A2 SUA and any person who is not involved in the flight operations, or any vehicle, vessel or structure that is not under the control of the remote pilot, measured horizontally and at any altitude, shall not be less than 10 m (with the flying speed of the SUA not exceeding 20 km/hr) or not less than 30 m (with the flying speed of the SUA exceeding 20 km/hr but not exceeding 50 km/hr).

7.6.3 For the purpose of this provision,

“Involved Person” means a person who takes part in or is well aware of the SUA operation, understands the risk, and is aware of the instructions and safety precautions in regard to the SUA operation. In practical terms, this means that an **involved person** must:

- be clearly notified about and aware of the SUA operations;
- understand the risks involved;
- have reasonable safeguards introduced for them by the venue manager or the SUA operating crew during SUA operation;
- be expected to follow the directions and safety precautions provided.

“Uninvolved Person” means any person other than “involved person”.

A **vehicle or vessel** is considered to be **“under the control of the remote pilot”** if:

- The remote pilot shall be satisfied that a permission has been granted by appropriate persons which have an interest in the vehicle or vessel (e.g. the operator or the owner) for an SUA to operate within a distance less than the required lateral separation; and
- Persons on board can reasonably be expected to follow directions and safety precautions to avoid unplanned interactions with the SUA; and
- Persons on board should be adequately briefed or informed about the SUA operations.

A **structure** is considered to be **“under the control of the remote pilot”** if:

- The remote pilot shall be satisfied that a permission has been granted by appropriate persons which have an interest in the structure (e.g. the management party of the structure) for an SUA to operate within a distance less than the required lateral separation; and
- Occupants of the structure can reasonably be expected to follow directions and safety precautions to avoid unplanned interactions with the SUA; and
- Occupants of the structure should be adequately briefed or informed about the SUA operations.

7.6.4 For the sake of public safety, remote pilot should avoid the following during an SUA operation:

- (a) Flying over populated and congested areas;

- (b) Flying over or close to, any object, installation or facility that would present a risk to safety in the event of damage due to any impact by the SUA, or in such a manner that the good order and discipline and control thereof may be or may likely be jeopardised. These include main streets, roads, traffic junctions, roundabouts, highways, bridges, flyovers, railways, etc.; and
- (c) Flying in areas affecting public safety or where emergency operations are underway. These include scenes or situations of a car crash, police operations, a fire and associated firefighting efforts, and search and rescue.

7.7 Maximum Number of SUA

- 7.7.1 The remote pilot of the SUA for the flight shall not operate more than one SUA at the same time.

7.8 Maximum Dimensions of SUA

- 7.8.1 The dimension of the SUA (including everything installed in, carried by or attached to the aircraft) shall not exceed 1m at all times during the flight, except that the longest distance between any two rotor blade tips can be up to 1.2 m.

7.9 Carriage of Person or Animal

- 7.9.1 The SUA shall not carry any person or animal during the flight.

7.10 Dropping from SUA

- 7.10.1 Nothing shall be dropped from the SUA during the flight. It should be noted that dropping include the meaning of lowering and projecting objects, pursuant to section 16(2) of the SUA Order.

7.11 Other Salient Points to Note

Preparation Prior to Flight

- 7.11.1 Before conducting any SUA operation, remote pilots should take into account various factors and make necessary preparation to ensure the flight can be carried out safely, which includes but not limited to physical site safety assessment, updates on weather conditions, check on SUA's condition and functionality, and familiarisation with the manufacturer's instructions. The permission of the land/property owner/manager on whose land/property the SUA is intended to perform take-off / landing should be sought if deemed necessary.

Restricted Flying Zone (RFZ)

- 7.11.2 Except with a permission granted under section 37 of the SUA Order, an SUA shall not be operated in an RFZ, unless it remains wholly within an enclosed area. Remote pilots are reminded to check for any latest updates of the RFZ designation and ensure that the geo-awareness functions are properly set-up for use before each flight.

Fitness of Remote Pilot

- 7.11.3 Remote pilots should not fly an SUA while under the influence of psychoactive substances (e.g. alcohol and drugs) that will impair his ability to conduct safe operations.
- 7.11.4 If the remote pilot is unfit to perform his duties (e.g. suffering from fatigue, heatstroke, sickness, etc.), the SUA operation should not be conducted.

Other legislation

- 7.11.5 Other legislation, bylaws and/or regulations in force may restrict when and where an SUA operation may be conducted. Remote pilot should also observe such requirements and contact the relevant authorities or parties for clearance and permission if necessary before flight.

Chapter 8 – Advanced Operations of SUA

8.1 Overview of Advanced Operations

8.1.1 Due to the higher risks involved, the following operations are classified as “**advanced operations**” and shall be subject to more stringent safety requirements. The responsible person, remote pilot and/or any other person who causes or permits the aircraft to be operated shall ensure that a **prior permission** is obtained from the CAD before the following operations :

- (a) Operations of **Category A1 or A2** SUA that **exceed the applicable operating requirements** as detailed in Chapter 7, except wholly within an enclosed area;
- (b) Operations of **Category B** SUA;
- (c) Operations of any SUA within an **RFZ**, except wholly within an enclosed area; and
- (d) Operations involving carriage of **dangerous goods**.

8.2 Requirements for Advanced Operations

8.2.1 Such advanced operations shall only be conducted upon **prior permission from the Civil Aviation Department (“CAD”)** in accordance with section 37 of the SUA Order. The application procedures and requirements for conducting specific types of advanced operations are provided in relevant ACs published on CAD website.

8.2.2 Depending on the nature and complexity of the advanced operations, and capability and experience of the applicant, permissions granted under section 37 of the SUA Order may be of the following types :

- (a) cover a specific type of advanced operations only (e.g. SUA night operations only) for a specified period of time;
- (b) cover a specific range of advanced operations for a specified period of time; and
- (c) event-based for the duration of the event.

This will not only provide flexibility to the industry and permission holders to meet the different SUA operational needs in a timely manner, but also ensure that a system is in place to maintain aviation and public safety.

8.2.3 For other proposed advanced operations (e.g. operations in RFZs and those involving carriage of dangerous goods), applicants are advised to discuss their proposals with the relevant authorities well in advance to assess the feasibility before making applications.

8.3 Advanced Operations Permission

- 8.3.1 If the CAD is satisfied that the applicant is fit and capable to conduct the specific types of advanced operations safely, an **Advanced Operations Permission (“AOP”)** will be granted.
- 8.3.2 The maximum validity period of an AOP is up to **six months** for new applicants and up to **one year** for renewal applications. AOP holders will be required to observe regulatory, personnel, documentation requirements, etc., and will be required to implement safety and quality assurance measures. AOP holders will also be subject to continuous oversight by the CAD. For details, please refer to the AC “Permission for conducting Small Unmanned Aircraft Advanced Operations” (No. AC-002) published on the CAD website.
- 8.3.3 Interested organisations may contact the CAD (email: sua@cad.gov.hk) and visit the CAD website for more details.

Chapter 9 – Insurance

9.1 Insurance Requirements for Advanced Operations

- 9.1.1 Pursuant to section 11(1)(c) and section 12 of the SUA Order, advanced operations as defined in Paragraph 8.1.1 of this SRD must have in force a policy of insurance that insures against any liability that may be incurred in respect of the death of, or bodily injury to, a third party -
- (a) arising out of or caused by the operation of the SUA for the flight in Hong Kong; and
 - (b) arising out of any one event.
- 9.1.2 The insurance policy shall have a coverage of not less than is HKD 10,000,000 (i.e. HKD 10 million) in respect of the liability described in Paragraph 9.1.1.
- 9.1.3 The insurance policy must be issued by an insurer authorised under the Insurance Ordinance (Cap. 41) as regulated by the Insurance Authority (“IA”). A register of authorised insurers is available on IA’s website.⁹
- 9.1.4 In the case of a foreign body corporate who has already taken out an insurance policy with global coverage for SUA operations, Paragraph 9.1.3 may be inapplicable. Insurers not authorised under the Insurance Ordinance (Cap. 41) but regulated by other authorities will be considered by the CAD on a case-by-case basis.
- 9.1.5 As a condition of permission for certain higher-risk operations (e.g. a large number of drones are required to be operated at the same time in an event with spectators), the DGCA may require an amount of coverage in an insurance policy higher than HKD 10 million.

9.2 Insurance Requirements for Standard Category A2 Operations

- 9.2.1 Standard Category A2 Operations will be required to have in force a policy of insurance that meet the requirements of section 12 of the SUA Order when section 12(2)(c) comes into operation on a date to be appointed by the DGCA by notice published in the Gazette. In other words, until the effective date of section 12(2)(c) of the SUA Order, the mandatory insurance requirements for Standard Category A2 operations will not come into effect yet¹⁰.

⁹ https://www.ia.org.hk/en/supervision/reg_insurers_lloyd/introduction_of_register_of_authorized_insurers.html

¹⁰ Also applicable to Category A1 SUA under exemption (G.N. 2303).

9.2.2 Paragraph 9.2.1 notwithstanding, although insurance is not yet mandated for Standard Category A2 Operations, remote pilots and responsible persons involved in Standard Category A2 Operations are encouraged to take out an insurance policy to protect them against third party liability that may be incurred considering the potential risks that SUA may pose to others.

9.3 Responsibility of Remote Pilot

9.3.1 Remote pilots have the responsibility to ensure an insurance policy meeting the requirements of the SUA Order and as set out in this Chapter is in force before any SUA flight. Especially when a remote pilot will be operating an SUA that belongs to others, he is advised to obtain written confirmation from the SUA responsible person before operation that the necessary insurance policy is already taken out.

Chapter 10 – Revocation, Suspension and Variation of Documents

10.1 Applicable Provisions

10.1.1 The provisions and procedures for variation, suspension and revocation of registration, rating, approval, authorization or permission issued under section 28, 31, 34, 36, 38 or 43 of the SUA Order are detailed in section 45, 46 and 47 of the SUA Order.

10.1.2 The breach of any condition subject to which any exemption, permission, certificate, or other document, has been granted or issued, or which has effect under the SUA Order shall also render the document invalid.

Chapter 11 – Reporting of Accidents and Incidents

11.1 Guidelines for Reporting

11.1.1 To enhance safety, any person involved in SUA operations who has knowledge of the occurrence of any accident or incident involving SUA of any weight in Hong Kong, is encouraged to submit a report to the CAD within **three calendar days** from the date of occurrence by email to sua@cad.gov.hk. Such persons include (but are not limited to) the SUA responsible person and the remote pilot.

11.1.2 The reportable occurrences include events such as:

- (a) Any incident that injured or caused fatality to person(s);
- (b) Any collision with or loss of separation from another aircraft;
- (c) Flyaway or loss of command and control datalink – where that flyaway or loss resulted in an event that was potentially prejudicial to the safety of other airspace users or third parties; and
- (d) Unintended contact between or loss of separation from the SUA and persons, structures, vehicles, vessels, etc.

11.1.3 In case of an **emergency** which may immediately affect the safety of other airspace users (e.g. a flyaway), please notify the **Hong Kong Air Traffic Control** (Tel: 2910 6822) with the following information as soon as possible:

- (a) Time of the occurrence;
- (b) Last known location/ altitude of the SUA;
- (c) Direction where the SUA headed to;
- (d) Remaining battery level/ flight time of the SUA; and
- (e) Brief description of the SUA (e.g. brand, model, colour, size, types, etc.)

11.1.4 A report to the **Hong Kong Police Force** should also be made immediately for necessary actions as appropriate.

Chapter 12 – Fees

12.1 Prescribed Fees

- 12.1.1 Under the “user-pays” principle, the costs of the CAD in processing applications and providing various services under the SUA Order should be recovered from the users through fees charged on applications. However, the CAD sees merits in minimising the burden on users as far as possible at the initial stage of the new regime so as to promote safe operation of SUA.
- 12.1.2 In light of the above, the CAD will not charge fees related to such applications or provision of services for the first three years regime (i.e. from 1 June 2022 until 31 May 2025). The statutory fee levels which are now set at HKD 0 are incorporated in the Schedule to the SUA Order.
- 12.1.3 After three years of implementation of the new SUA regime, the CAD will review the statutory fee levels on a full cost-recovery basis, and the relevant legislative proposal with the commencement date will be tabled and in the Legislative Council for negative vetting.

Appendix A – Advanced Rating Assignment through Alternative Means of Compliance

1. To conduct advanced operations, remote pilots shall have an Advanced Rating assigned to the Remote Pilot Certificate issued by the CAD, indicating that such person has complied with the training and assessment requirements set by the CAD.
2. Apart from the advanced rating training course as provided by SUA ATO, recognised proof of competency and experience may be considered as alternative means of compliance to substantiate the application for Advanced Rating.

Recognition of Proof of Competency by Non-local Major Civil Aviation Authorities

3. Certain non-local proof of competency (e.g. remote pilot licence, certificate, etc.) issued by major civil aviation authorities (CAAs) or designated authorities may be recognised by the CAD. Remote pilot attaining the following qualifications and experience may apply to the CAD with supporting documents for the assignment of Advanced Rating.
 - (a) Certification:
 - a. Remote Pilot Licence (RePL) issued by Civil Aviation Safety Authority (CASA) of Australia;
 - b. Pilot Certificate — Advanced Operations issued by Transport Canada (TC);
 - c. Civil Unmanned Aircraft System Pilot Certificate (民用无人机驾驶员执照) issued by Aircraft Owners and Pilots Association of China (中国航空器拥有者及驾驶员协会) / Civil Aviation Administration of China (CAAC)
 - d. Unmanned Aircraft Pilot Licence (UAPL) issued by Civil Aviation Authority of Singapore;
 - e. Proof of remote pilot competence issued by a National Qualified Entity (NQE) or Remote Pilot Assessment Organisations (RAEs) as approved by Civil Aviation Authority of UK (UKCAA);
 - f. General VLOS Certificate (GVC) issued by UKCAA; or
 - g. Remote Pilot Certificate issued by Federal Aviation Administration (FAA) of US; and
 - (b) Log of flight experience indicating a minimum of two hours flying time within the past 12 months.
4. Remote pilot holding non-local proof of competency issued by major CAAs other than the above listed may also apply in writing to the CAD for Advanced Rating conversion. The application shall be accompanied by the proof of competency and descriptions of the relevant training and assessments requirements for the issue of such proof of competency (e.g. the training course and test completed). Such applications will be considered on a case-by-case basis.

Recognition of Experienced Remote Pilots (“Mature Route”)

5. Until 30 November 2023, experienced remote pilot who can demonstrate established records of SUA work-related operational experience in an organisation may also apply for assignment of Advanced Rating by submitting the necessary documentary proof.
6. The document proof should be in the format of a certification letter issued by an organisation that had successfully applied to the CAD for conducting SUA operation. The certification letter should contain the following essential information:
 - a. Name of remote pilot (applicant);
 - b. Name of organisation;
 - c. Contact information;
 - d. Confirmation that the applicant is currently (or has been) under the employment of the organisation to perform SUA operations as remote pilot;
 - e. Confirmation that the applicant had met the experience requirement of accumulating at least 5 flying hours fulfilling the followings:
 - i. Two of the flying hours were accumulated in the past 12 months under the employment of the certifying organisation;
 - ii. Has conducted operation(s) as remote pilot under successful SUA operation application to the CAD; and
 - iii. The relevant records are available for inspection if deemed necessary
 - f. An annex attaching the records of successful SUA application to the CAD before 1 June 2022, i.e. a copy of the “Permission to Operate Non-Scheduled Services for Hire or Reward – Unmanned Aircraft Systems” or CAD’s letter to “Application for Operation Unmanned Aircraft System” held by the organisation; and
 - g. Signature and chop of the certifying organisation
7. Experienced remote pilot without established records of SUA work-related operational experience may also apply in writing to the CAD for Advanced Rating conversion with relevant supporting documents. Such applications will be considered on a case-by-case basis. Additional requirements may be imposed by the CAD to facilitate demonstration of the applicant’s knowledge, experience and competence if necessary.

Additional Requirements

8. Applicants of the Advanced Rating Conversion shall note that additional requirements may be imposed by the CAD to facilitate demonstration of the applicant’s knowledge, experience and competence if necessary. For example, upon notification by the CAD, the remote pilot may be required to attend additional courses, examinations or assessments carried out by the CAD or an SUA ATO.

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