



ICAO

**ELEVENTH MEETING OF THE REGIONAL AVIATION SAFETY GROUP - ASIA AND PACIFIC REGIONS (RASG-APAC/11)**

*(Video Teleconference, 25-26 November 2021 at 10:00-13:00 hrs. Bangkok Time, UTC+7)*

**Agenda Item 4: ICAO / Member State / Industry Presentations**

**REGULATION OF SMALL UNMANNED AIRCRAFT IN HONG KONG, CHINA  
– UPDATE ON THE LATEST DEVELOPMENT**

*(Presented by Hong Kong, China)*

**SUMMARY**

With the support of key stakeholders, a new regulatory regime for the operations of small unmanned aircraft (“SUA”), commonly known as drones, in Hong Kong, China will come into force on 1 June 2022. The new forward-looking regulatory regime can foster the innovative development and application of small unmanned aircraft in tandem with evolving technology, while safeguarding aviation and public safety. This paper shares the experiences of Hong Kong, China in developing this new regulatory regime specially designed for SUA.

**1. INTRODUCTION**

1.1 Small unmanned aircraft (“SUA”), more commonly known as drones, has been gaining popularity over the past few years both in Hong Kong, China and worldwide. In Hong Kong, China, the uses of SUA range from recreation and STEM education to professional deployment for powerline inspection, surveying, 3D mapping, search and rescue operations, aerial photography and filming, drone shows, etc. Hong Kong, China sees the need to formulate a new forward-looking regulatory regime for SUA that can foster the innovative development and application of SUA in Hong Kong, China in tandem with evolving technology, while safeguarding aviation and public safety.

1.2 To achieve this aim, the Civil Aviation Department (“CAD”) of Hong Kong, China has introduced a new piece of subsidiary legislation under the Civil Aviation Ordinance, namely the Small Unmanned Aircraft Order (“SUA Order”), which will become effective on 1 June 2022. Under the new 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 SUAs, registration of remote pilots, training and assessment, equipment, operating requirements and insurance. Prior permission from CAD will be required for higher risk operations.

## 2. DISCUSSION

### *Risk-based Classification of SUA Operations*

2.1 Under the risk-based approach, SUA operations are regulated according to the weight<sup>1</sup> of the SUA and the operational risk level, which applies to all uses alike, including recreational and commercial purposes.

#### Classification of SUA in respect of each flight

- **Category A1 SUA** – if its weight does not exceed 250 grams during the flight;
- **Category A2 SUA** – if its weight exceeds 250 grams but does not exceed 7 kilograms during the flight; and
- **Category B SUA** – if its weight exceeds 7 kilograms but does not exceed 25 kilograms during the flight.

#### Classification of SUA in respect of each flight and its operations is as follows –

- **Standard Operations:** Operations of Category A1 / A2 SUA, within the operating requirements specified by the CAD. Prior permission will not be required before such a flight.
- **Advanced Operations:** Operations of Category B SUA or operations of Category A1 / A2 SUA exceeding the respective operating requirements as specified by the CAD. They involve higher risks and hence, prior permission from CAD will be required before such a flight.

### *Registration and Labelling Requirements*

2.2 Safety awareness amongst users of SUA as well as enforceability of the regulatory requirements are considered important elements in making the new regulatory regime a success. In this connection, the CAD will administer a registration system under which both SUA and remote pilots (except for operations of Category A1 SUA within the respective operating requirements) are required to be registered. Before operating an SUA, the remote pilot should ensure that the SUA label is properly displayed on the SUA. These requirements will enhance traceability of the SUA owner and remote pilot as well as the enforceability of SUA regulatory requirements. An electronic portal will be used to facilitate the registration process.

### *Training and Assessment Requirements*

2.3 Safety awareness as well as and suitable training amongst users of SUA helps ensure competency and enhance safety awareness of remote pilots. During the registration process, all remote pilots will need to go through information on safe SUA operations in the electronic portal. Remote pilots for Advanced Operations are also required to undertake advanced training and assessment from a SUA Training Organisation approved by the CAD as they involve in higher risk operations. Upon successful completion of the training and assessment, an “Advanced Rating” will be assigned to such remote pilot for conducting the operations. In order to facilitate experienced remote pilots as well as those who have already gone through similar training and assessment in other jurisdictions, CAD may consider issuing advanced rating to them subject to the proof of competency and relevant experience provided.

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<sup>1</sup> In determining the weight of an SUA, regardless of its category, everything installed in, carried by or attached to the SUA is to be taken into account.

### *Equipment Requirements*

2.4 Appropriate equipment would enhance public safety, not only by providing essential safety features where necessary but also enhancing the safety awareness of remote pilots. Hence, SUA (except for operations of Category A1 SUA within the respective operating requirements) are required to equip with basic capabilities of flight log (for recording basic flight parameters such as altitude, geographical location, speed, etc.) and geo-awareness (for providing real-time information and/or alerts to remote pilots on airspace restrictions). For Advanced Operations, depending on the complexity and potential risks of the operation concerned, the SUA may be subject to additional equipment requirements.

### *Insurance Requirements*

2.5 Having considered that Hong Kong, China is densely populated and in view of the potential risks that SUA may pose to third parties, the regime also includes insurance requirements in respect of third party liability for bodily injury and/or death. A phased approach will be adopted on the mandatory insurance requirements in respect of third party liability for bodily injury and/or death. The first phase will be mandatory insurance for Advanced Operations involving higher risk operations, which will take effect immediately upon commencement of the SUA Order whilst the second phase on Standard Operations involving Category A2 SUA will commence on a later date subject to further review on market readiness of SUA-related insurance products with more competitive premium and flexible choices of duration. The minimum coverage level for HK\$5 million and HK\$10 million are imposed on Standard Operations and Advanced Operations respectively.

### *Drone Map for SUA Operations*

2.6 SUA operations will be restricted in areas such as airspace within or adjacent to aerodromes and heliports and associated flight path to safeguard aviation safety. Restriction of SUA operations may also be required for emergency or security purposes to ensure public safety and order. To facilitate easy reference by the public, remote pilot and other air space users, the CAD will publish an electronic drone map clearly delineating the areas restricting SUA operations via the electronic portal.

### *Indoor Operations of SUA / within Enclosed Area*

2.7 SUA operating indoors would not affect aviation safety but it may still pose risks to persons and properties particularly where public access is allowed. Under the new regulatory regime, the majority of the SUA Order will not be applicable to indoor operations in domestic premises (e.g. residential flats / apartment). In non-domestic premises (e.g. shopping malls, concert halls, community centres, etc.), a Category A2 / B SUA to be operated for a flight are required to be registered and labelled. Considering the need to safeguard public safety, SUA operating indoors in domestic or non-domestic premises are still subject to the offences related to various endangering acts such as the offence of operating an SUA dangerously. Property owners / managers should ensure safety of their venues by working out additional safety measures with respect to the specific venue constraints and crowd control measures.

*Operations for Education and Research Purpose*

2.8 Considering that operations of SUA by education institutions are normally within school premises under the supervision of educational institutions, and with a view to facilitating the continual development of SUA applications, special considerations were given to these operations. Regulatory requirements on remote pilots, equipment and insurance, as well as the majority of the operating requirements will not apply to SUA operations for education or research purpose within school premises.

*Safety Promotion*

2.9 Legislation apart, to promote public awareness on safe operations of SUA, a comprehensive publicity and public relations campaign encompassing the production of promotional videos through different channels including television, radio, publications, CAD's website, etc. will be launched. A series of briefing and seminars will be organised to engage industry partners on the new regulatory regime. Road shows to different stakeholders including operators, professional bodies and educational institutions will also be organised to promulgate safety information and regulatory requirements.

*Way Forward*

2.10 The new regulatory regime aims to build in flexibility and strike a balance between protecting aviation safety and public safety as well as facilitating the development of SUA. The CAD will continue to work proactively and collaborate with key stakeholders and industry partners to ensure a smooth and coordinated transition into the new regulatory regime.

**3. ACTION BY THE MEETING**

3.1 The Meeting is invited to note Hong Kong, China's efforts in developing a regulatory regime aimed at striking a balance between protecting aviation and public safety and facilitating the development of SUA.

3.2 Member States/Administrations are invited to share their experiences and national best practices in regulating SUA.

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