



RECOMMEND ASIA AND PACIFIC STATES STRENGTHEN UAS MANAGEMENT AND INTER-STATE COMMUNICATION AND COORDINATION



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1

INTRODUCTION

2

DISCUSSION

3

ACTION BY THE CONFERENCE

1. INTRODUCTION



- **1.1** In recent years, Unmanned Aircraft System (UAS) have developed rapidly around the world and become a new way of aviation activities, which is constantly being integrated into the existing civil aviation system. The International Civil Aviation Organization (ICAO) established **RPASP and Small UAS AG**, and the asia-pacific region also launched **UAS TF**.
- **1.2** In the face of the rapid development of the UAS, China actively carry out UAS management research, such as **UAS registration, operate personnel management, aircraft operation, protection scope is delimited (Geo-fencing applications), air traffic services and the illegal flight disposal of measures**, etc.
- **1.3** The civil aviation of China(CAAC) is willing to communicate with countries in the asia-pacific region about UAS management experience and lesson, **strengthen regional cooperation and coordination**, facilitate the management of UAS, ensure flight safety, promote the UAS development.

2. DISCUSSION

- 2.1 The ICAO has carried out work on UAS management.
 - 2.1.1 The ICAO established a special expert panel **RPASP**, which to set up around the **Remotely Piloted Aircraft Systems (RPAS)** to formulate Standards and Recommended Practices (SARPs), guidance materials and technical specifications. Experts panels component **personnel license, operation, airworthiness, detect and avoid(DAA), communication and control link(C2), air traffic management(ATM)**, plan to submit to the revision of the main accessories in 2018, passed in 2019 and began to implement.



2. DISCUSSION

- 2.1 The ICAO has carried out work on UAS management.
 - 2.1.2 ICAO set up the **Small Unmanned Aircraft System - Advisory Group (SUAS - AG)**, which under the RPAS, to collect countries in the aspect of Small UAS management experience, and to put forward management advice. The first phase completed the development of the toolkit website. The second phase of work is being carried out to develop guidance materials for UAS management.
 - 2.1.3 In various areas of the world and many organizations are in UAS management regulations, policy, technology research, the asia-pacific region also identified **the special task of UAS management**, and held the first meeting in Bangkok from April 3 to 5 2017.



2. DISCUSSION

- 2.2 China has done a lot of work on UAS management, China has been affected by UAS for nearly a year and has taken relevant measures:
 - 2.2.1 The management of UAS, particularly small UAS, involves many aspects of **manufacturing, marketing, operation, personnel, aircraft, surveillance and investigate of illegal flight**. The CAAC has strengthened its working relationship with relevant departments, and regularly convened special meetings to coordinate and research relevant work.
 - 2.2.2 Regulations on registration of **real-name registration** for civil unmanned aircraft, established real-name registration system for UAS. The holder of the **250-gram** UAS should be registered on the civil aviation administration's real-name registration system.



2. DISCUSSION

- 2.2 China has done a lot of work on UAS management, China has been affected by UAS for nearly a year and has taken relevant measures:
 - 2.2.3 Collect and arrange the data of the **protection scope of obstruction limit of the national transportation airport**, and publish the data according to the periodic system of air information. The UAS manufacturer will use **Geo-fencing** and other technologies to prevent UAS from flying into the corresponding airspace, according to the published protection scope.
 - 2.2.4 Regulate the management of civil UAS **operators and training institutions**. Takeoff Gross Weight(TOGW) below **7 kg** for the visual flight operators **do not need** to hold a license. TOGW over **150 kg**, and the operator's license for the flight of the mixed airspace shall be issued by the authority. At present, more than **200** UAS training institutions are authorized to issue more than **13,000** UAS operator licenses.



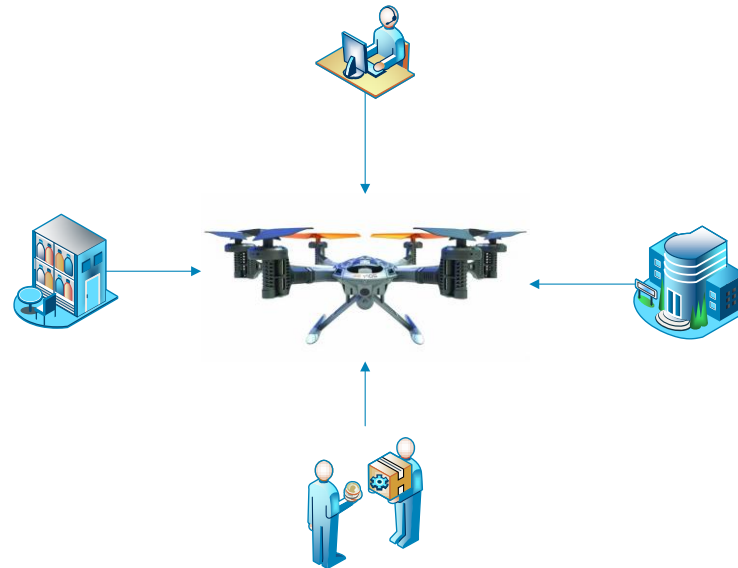
2. DISCUSSION



- 2.2 China has done a lot of work on UAS management, China has been affected by UAS for nearly a year and has taken relevant measures:
 - 2.2.5 Formulated and issued "**small UAS operation regulations**", the industry association and enterprise develop **UAS Cloud System**, grasp the information of the flight plan, location, type and operator of UAS activities.
 - 2.2.6 Formulate "**civil UAS of air traffic management method**". The UAS conform to such as TOGW below **7 kg**, outside the airport obstacle, VLOS, day time conditions, which **do not need** to assessment of the impact of the civil aviation flight, can fly in a **segregated airspace**. Other UAS flights are required should be **evaluated** which in or around the approach control area or route.
 - 2.2.7 In order to regulate ATC unit to dispose UAS illegal flight interfere with the other flight activity, recent will formulate and issue "**the disposal procedures of civil UAS illegal flight**". According to the report of the UAS category, weather conditions, control mode, etc.

2. DISCUSSION

- 2.3 After the previous work, the air traffic management(ATM) of UAS in China has a preliminary basis. Next, the CAAC will use information as the core, including: **aircraft registration information, operate personnel information, Geo-fencing information, flight dynamic information, airspace use information, flight plan information, research and construction of UTM,** gradually blend in UAS flight activities existing to ATC system.



3. ACTION BY THE CONFERENCE



- **3.1 The Conference is invited to:**
 - a) **Focus on the progress of the ICAO and Asia Pacific region on UAS management.;**
 - b) **Focus on China's measures on UAS regulation;**
 - c) **Enhance the coordination of UAS management among states, continue to play an effective role and working mechanism of ICAO Asia/Pacific Unmanned Aircraft Systems Task Force.**

