54th CONFERENCE OF DIRECTORS GENERAL OF CIVIL AVIATION ASIA AND PACIFIC REGIONS

Ulaanbaatar, Mongolia
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AGENDA ITEM 3: AVIATION SAFETY AND AIR NAVIGATION

COMMUNICATION AND COORDINATION ON UAS MANAGEMENT

(Presented by China)

SUMMARY

This paper presents actions by China on developments and managements of UAS. In recent years, many flights in China has been effected by UAS, China has made a lot of efforts to eliminate these negative effect on civil aviation safety and efficiency, it is recommended that more states could strengthen cooperation and share experience on UAS management.

COMMUNICATION AND COORDINATION ON UAS MANAGEMENT

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. ICAO established RPASP and Small UAS AG, and APAC also launched UAS TF.

1.2 To deal with challenge of UAS development, China actively carry out UAS management research, such as UAS registration, operate personnel training and licensing, aircraft operation, protection airspace or area (Geo-fencing applications), air traffic services and the ATC contingency procedure for illegal or unknown UAS, etc.

1.3 CAAC is willing to share experience with states in the Asia-Pacific Region on UAS management. It is encouraged to make regional collaboration closely on UAS management to ensure flight safety, promote the UAS development.

2. DISCUSSION

2.1 Actions by ICAO on UAS management.

2.1.1 ICAO established Remotely Piloted Aircraft Systems Panel (RPASP) to develop SARPs, Guidance Materials and Technical Specifications. Working Groups in this panel focus on personnel license, operation, airworthiness, detect and avoid (DAA), communication and control link (C2), air traffic management (ATM). SARPs are plan to be submitted to ANC in 2018.

2.1.2 Small Unmanned Aircraft System - Advisory Group (SUAS - AG), which under the RPAS, has been set up to collect states/administrations in the aspect of Small UAS management experience, and to put forward management advice. APANPIRG also identified the special task of UAS management and set up UAS Task Force

2.2 Many flights have been effected by UAS recently in China and a lot of efforts have been made. UAS management, particularly small UAS, involves manufacturing, marketing, operation, personnel, aircraft, surveillance and supervision. The CAAC has cooperated closely with ministry of industry and information technology, ministry of public security, military, and relevant departments of Chinese government.

2.2.1 Published Regulations

CAAC has already published 5 rules about UAS Management.

Rule of UAS holder registration. Published on May, 2017. According to the regulation, all holders of the 250g over UAS should register on registration system on CAAC's Website.

Rule of UAS pilots management. According to the regulation, UAS below 7 kg operated in range of visibility, operators' license are not required. UAS over 150 kg operated in the mixed airspace, the license are required for operators issued by the authority. Other operators' qualification management are conducted by industry associations. At present, more than 200 UAS training institutions are authorized, and more than 13,000 UAS operator licenses are issued.

Rule of small UAS operation. UAS Cloud Systems have been developed by industry association and enterprise. Small UAS operational information could be acquired through these UAS Cloud Systems.

Regulation of UAS Air Traffic Management. UAS below 7 kg could be operated in range of visibility, day time and outside the projection of airport obstacle free zone, otherwise the operation should be evaluated.

ATC contingency procedure for illegal or unknown UAS has been published last week.

2.2.2 CAAC has already published the protection area data of obstacle free zone of most airports periodically as AIRAC requirement. According to the published protection area, manufacturers will use Geo-fencing and other technologies to prevent UAS flying into the corresponding airspace. At present, the protection area of 173 airports have been published.

2.3 CAAC intend to research and construct information based UAS Traffic Management. The key information involves aircraft registration information, operate personnel information, Geo-fencing information, flight activity information, airspace information, flight plan information, on purpose of integrate UAS operation into ATM System.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to:

a) Note the progress of the ICAO and Asia Pacific region on UAS management;

b) Note the action by China on UAS management

c) Encourage the coordination and cooperation on UAS management among states, continue to play an effective role in ICAO Asia/Pacific Unmanned Aircraft Systems Task Force.

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