Thirty First Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/31)

Video Teleconference - Bangkok, Thailand, 14 to 16 December 2020

Schedule: 10:00 – 13:15 Bangkok Time [UTC+7hrs]

Agenda Item 3: **Performance Framework for Regional Air Navigation Planning and Implementation**

3.2 **ATM**

OPERATION OF UNMANNED AIRCRAFT SYSTEMS WITHIN INDONESIA NATIONAL AIRSPACE

(Presented by Indonesia)

SUMMARY

This paper presents to the meeting concerning the update of UAS operation within national airspace.

Strategic Objectives:
*A: **Safety** – Enhance global civil aviation safety*
B: ***Air Navigation Capacity and Efficiency** — Increase the capacity and improve the efficiency of the global aviation system*

1. INTRODUCTION

1.1 The increasing of UAS operation especially for small UAS or drone for recreational and commercial is a condition that every country has to deal with and cannot be avoided in recent years. Tremendous population of drones forced every country to manage the operation not to endanger human, property, and civil aviation.

1.2 In order to maintain aviation safety, Indonesia has been developed some procedures for UAS operation through national legislation that regulates some restrictions as similar as other countries. Indonesia requires UAS to be registered and marked in order to identify them in case they are lost or causing damages and to obtain operation approval that issued by DGCA.

1.3 Indonesia established several ministerial regulations for drone operations since 2015, these regulations set up the general provisions for registration, identification, operating rules, certifications and law enforcement.

2. DISCUSSION

UAS Operation Authorization

2.1 UAS operation on a regular or scheduled based is conducted by proposing reserved airspace. Those are conduct in order to maintaining safety as well as to accommodate the needs of UAS operators. The principle of Flexible Used of Airspace (FUA) was applied to this airspace reserved for UAS operation.

2.2 The regulation mandates the operator that operates drone with the weight less than 25kg. to comply the requirement as follows:

2.2.1. Propose the assessment of the airspace usage (the assessment conducted by AirNav or the authorized entity).

2.2.2. Provide documentations required to the process that contain of the description of operators information and contact number, airborne system specifications, ground system specifications, type and purpose of flight operations, flight plans, operation procedures and manual, emergency procedures, drone pilot competency, insurance for the third party, etc.

2.2.3. Apply airworthiness permit to DGCA of Indonesia, once it is approved then eligible to fly within uncontrolled airspace up to 400ft above the ground. Any changes or cancellations to the flight plan approved by DGCA, has to be requested 7 days prior to the day of operation. During the day of operation, the drone operator shall coordinate and subject to the ATS unit concerned.

2.3 For operator that operates drone with the weight over 25kgs, these rules applied:

2.3.1. Must have restricted aircraft type certificate from DGCA

2.3.2. 14 days prior to operate, the drone operator shall request permit to DGCA by provided the documentations required to the process that contain of the description of operators' information and contact number, airborne system specifications, ground system specifications, type and purpose of flight operations, flight plans, operation procedures and manual, emergency procedures, UAS pilot competency, insurance for the third party, etc.

UAS Operation within Indonesian Airspace

2.4 Current situations with widespread of UAS applications require the Regulator and ANSP to adapt its rule making processes and monitoring of UAS operations to the latest possible extent as necessary.

2.5 Furthermore, Indonesia will develop procedures for drone/UAS operation to fly above 400ft for commercial use, and allow UAS to fly in the controlled airspace with special permit by comply with the communication requirement with ATC and Navigation specification requirements or by implement non-segregated operation.

2.6 The decision has not been made whether UAS will take place on segregated airspace or utilize existing ATS route network, most probably allocate segregation of operation time in order not to infringe civil aviation.

2.7 It will require in-depth analysis and safety assessment to ensure safety operation of civil aviation purpose.

Oversight Mechanism of UAS Operation

2.8 Some cases are reported caused by UAS operation, such as the operation of sUAS in final approach area while the manned aircraft is in the approach phase.

2.9 To ensure that UAS operation is safe for the manned aircraft operations, Indonesia is developing a proper oversight mechanism for UAS operations within national airspace. The scope should be covered (at least) personnel that operate the UAS operation, the conformity of UAS operation with the approval and the law enforcement.

2.10 The mechanism is required the establishment of guidance that clearly defined the scope, the personnel qualifications and also the methodology in conducting the oversight activities.

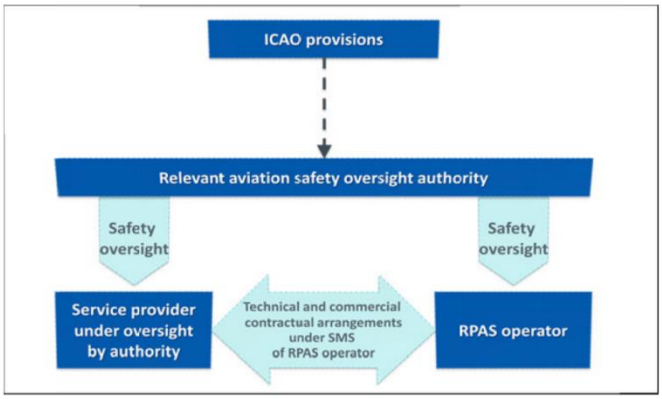

Figure 6-1. Oversight by aviation safety oversight authority

The illustration from ICAO Doc 10019 of Manual RPAS

2.11 Nowadays, Indonesia is developing oversight mechanism of UAS operations. The scope of the oversight (but not limited to these activity) are the conformity of the UAS operation with the approval issued by DGCA, with the NOTAM issued for the operation, with the registration, operator certification & remote pilot certificate and also the conformity of security clearance for UAS operation in the specified areas or airspace.

2.12 DGCA Indonesia in the collaboration with other entities (Indonesian Air Force, Drone Association, etc.) will conduct the oversight activities.

2.13 Indonesia will enforce the UAS operators that meets the condition such as the sovereignty infringements, endanger aviation safety, security and the vital object, the operation without an approval or not appropriate with the scope in the approval.

2.14 The enforcement is consisting of some activities such as the punishment burden (criminal) and the imposition of administrative sanction. But for some cases the assertive action such as frequency jamming, forcing the UAS to exit the areas or airspace, dropped the UAS in the secure area or by using technology such as antidrone.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) Note the information contained in this paper; and

b) discuss any relevant matters as appropriate.

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