



ICAO

## Fifth Meeting of the African Air Navigation Services Providers

(Lomé, Togo, 28<sup>th</sup> March -1<sup>st</sup> April 2022)

### Agenda Item 5: Support to the African Union Single African Air Transport Market (SAATM) flagship programme

#### WP13//PPT: Impact of remotely piloted aircraft systems (RPAS) or drones on ATC operations in ASECNA airspace

(Presented by ASECNA)

<b>SUMMARY</b>	
<p>This information paper addresses the impact of remotely piloted aircraft systems (RPAS) or drones on ATC operations in ASECNA airspace. It presents the benefits and hazards/risks of drones in the context of Unmanned Aircraft Systems (UTM) traffic management.</p> <p>Discussions will focus on the regulatory framework of ASECNA Member States of RPAS on the management of drone/RPAS/UAS traffic in the airspace of ASECNA States.</p> <p>Action by the meeting is at <b>paragraph 3</b>.</p>	
<i>REFERENCE(S)</i>	<ul style="list-style-type: none"> <li>• ICAO Annex 1 - Personnel Licenses;</li> <li>• ICAO Annex 2 — Rules of the Air;</li> <li>• ICAO Annex 6 - Aircraft Technical Operations;</li> <li>• ICAO Annex 8 - Airworthiness of Aircraft;</li> <li>• ICAO Annex 10 — Aeronautical Telecommunications;</li> <li>• ICAO, Cir 328, Unmanned Aircraft Systems (UAS);</li> <li>• ICAO, RPAS Guidance Manual (under development).</li> </ul>
<i>Strategic Objectives</i>	Air Navigation Safety, Capacity and Efficiency

## 1 INTRODUCTION

- 1.1 The introduction and acceptance of remote piloted aircraft (RPAS) or drones in airspace, significantly disrupts air traffic management systems.
- 1.2 Currently, there is a patchwork of regulatory frameworks in different countries where harmonization is required to ensure the safety of the aircraft with pilots in airspace.
- 1.3 It should be noted that ICAO and other organizations such as the Civil Air Navigation Services Organisation (CANSO), the Radio Technical Commission for Aeronautics (RTCA) and the European Civil Aviation Equipment Organisation (EUROCAE), continue to promote the safe use of RPAS in the current airspace structure with respect to the significant economic benefits of this system.
- 1.4 Faced with this situation, civil aviation authorities and Air Navigation Service Providers (ANSP) shall act to develop appropriate regulations and procedures to enable the safe management of RPAS in the air traffic management system.
- 1.5 With the emergence of remotely piloted aircraft systems (RPAS) in the air traffic control environment, air navigation service providers need professionals who understand the opportunities and challenges posed by these systems.
- 1.6 To this end, the ANSP must address the challenges and benefits that this emergence could generate by planning the training of relevant actors for the safe management of RPAS in airspace, given that, RPAS should change the way of air traffic controllers work.
- 1.7 With the proliferation of RPAS in ASECNA airspace, it is necessary to determine the risk of collision with other RPAS or aircraft with pilots. In order to do so, it is necessary to examine the main challenges of the aeronautical industry, in particular interoperability, integration in airspace, communications, training and regulation of RPAS. In addition, the concept of Unmanned Aviation System (UTM) Traffic Management should be explained to enable air traffic controllers to become familiar with the impact of RPAS on ATC operations.

## 2. DISCUSSION

2.1. This information paper highlights three key areas of reflection:

- a. Issues of the emergence of RPAS integration in ASECNA ATM systems;
- b. The benefits of operating RPAS in controlled airspace;
- c. Risks and/or hazards created by operators operating RPAS, without instruction and without licence.

2.2 The problem of the emergence of the integration of remotely piloted aircraft systems in ASECNA's airspace aims, not only to better understand the benefits, but also, the risks and potential consequences of the loss of separation between RPAS or RPAS and manned aircraft and propose solutions for them.

## 3 ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Take note of the impact of unmanned aircraft systems (RPAS) or drones on ATC operations in ASECNA airspace;
- b) Take note of the benefits, dangers and/or risks of implementing remotely piloted aircraft systems in ASECNA airspace;
- c) Urge ASECNA Member States to develop and implement the regulatory framework for the integration of RPAS into the traffic management system, including:
  - The conditions of access to RPAS airspace;
  - RPAS Airworthiness Certification Conditions ;
  - Conditions for issuing operating licences ;
  - Specifications for communication performance,
  - Specifications for telepilot licences ;
  - Specifications for detection and avoidance technology performance ;
  - Personnel training and qualification requirements (controllers, pilots).
- d) Request ICAO to accompany ASECNA Member States in the development of the regulatory framework for the seamless integration of RPAS into the Agency's airspace management.

END