ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Eighth Meeting of the AASPG Airspace and Aerodrome Operations Sub-Group (AAO/SG8)

Dakar, Senegal 14-18 July 2025

Agenda Item 3: **Achievements in AOP and ATM/SAR**

REQUIREMENTS FOR THE DEVELOPMENT OF SARPS FOR DIGITAL AIR TRAFFIC SERVICES

(Presented by Secretariat)

SUMMARY
This working paper presents the outcome of the discussion on the requirement for the formulation of Standards and Recommended Practices (SARPS) for the provision of Digital Air Traffic Services as presented at the APIRG/27 meeting.

REFRENCE(S): 1. APIRG/27 Report 2. AAO SG/7 Report 3. ANConf/12 Report 4. ANConf/14 Report
Related ICAO Strategic Objective(s): **A**-Aviation Safety **B**- Air Navigation Capacity and Efficiency **D**-Economic Development of Air Transport and **E**-Environmental Protection.

1.   INTRODUCTION (HISTORY)

1.1   Remote air traffic control towers, also known as digital towers, utilize advanced technology to manage airport traffic from a centralized location, rather than from a physical tower at the airport.

1.2   The development of Remote ATC towers operations has been in process since the early 2000s. This works has mainly taken place in regions where there is need to provide air traffic services however, the number of flights does not justify the cost of posting staff at the remote location or the place is too remote to have staff continuously at location.

1.3   The innovative approach of remote towers leverages on high-definition cameras, sensors, and robust communication networks to provide air traffic controllers stationed at another location with a comprehensive view of the remote airfield and its surroundings.

1.4   The first remote tower implementation providing aerodrome ATS was approved and introduced into operations in Sweden in April 2015. More EU States are currently planning or have already considered implementation.

1.5   Although this technology was initially developed for airports with low traffic levels, this changed with the ANSPs facing challenges related to the costs of operations and maintaining staffing levels. In 2021 it was implemented at a major international airport, the London City Airport, which realized 84,260 aircraft movements in 2019.

2.   DISCUSSION

2.1   At the Twenty Seventh Meeting of the AFI Planning and Implementation Group (APIRG/27) held in November 20024 at East London, South Africa, a working paper (WP) was presented on the challenges of implementation of remote ATS by South Africa.

2.2   South Africa reported through the paper on the challenges surrounding the implementation of remote air traffic services (Remote ATS). The paper highlighted the developments that have taken place globally in the area of Remote Towers. Noting that the remote towers concept is now globally accepted and has been introduced in some regions, there were no harmonized operating Standards developed by ICAO to govern the provision of ATS using remote sensing. The paper called on the meeting to urge ICAO to enhance the existing Standards and Recommended Practices (SARPs) governing provisions for Tower Control to incorporate SARPs for Remote Towers.

2.3   In discussion, IFATCA informed the meeting of the joint working paper on the subject that was presented at the AN-Conf/14 which highlighted the identified challenges in the implementation of remote towers and called for further studies and the enhancement of standards.

2.4   The meeting was informed that work is already in progress at ICAO to enhance the provisions for the implementation of digital air traffic services (DATS), which is an ASBU Module under B1/1 dealing with remotely operated Aerodrome ATS. The meeting noting the rapid developments in this area and the need for the region to be prepared to embrace the concept, formed the following Conclusion:

APIRG/27 Conclusion 27/19: Requirement for Digital ATS (DATS) operations Standards.	
WHY?	That, considering the growing need for Digital ATS (DATS) operations in the AFI region and the inadequacy of current operational standards to enable safe implementation.
WHAT?	a) ICAO to provide new SARPs commensurate with requirements for DATS operations; and b) The Secretariat to conduct at least one awareness workshop on the status of ICAO provisions related to DATS operations by 31 October 2025.
WHO?	a) Secretariat b) States, Secretariat
WHEN?	a) & b) 31 October 2025.
Implementation following up	

| FOLLOW-UP REQUIRED | Yes ⊠
No ☐ | METRICS | Metric 1: SARPs provided
Metric 2: Workshops Conducted | Means to collect data on the implementation of the conclusion /decision | AAO
SG
Report |

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) Take note of the information in the paper.

b) Consider the appropriate action in support of the work on going at the ICAO HQs.

c) Urge States to consider participation in the ICAO WGs and Panel on remote ATS.