



INTERNATIONAL CIVIL AVIATION ORGANIZATION

Seventh Meeting of the APIRG Infrastructure and Information Management Sub-Group (IIM/SG7)

Dakar, Senegal, 5 - 8 August 2024

Agenda Item 3.4: Reporting on Planning and implementation by States and Stakeholders

IP3.4C WMO partnering with ICAO for improved aviation meteorological services in Africa.

(Presented by WMO Regional Office for Africa)

SUMMARY
<p>This information paper outlines the needs and suggests areas of investigation, for an enhanced cooperation and improved collaboration between ICAO and WMO Regional Offices to serve Member States in Africa effectively and efficiently and to improve safety in aviation, in line with the working arrangement between the two Organizations as contained in ICAO Doc. 7475. This will be realized through projects and initiatives aimed at identifying gaps, challenges, exploring win-win ventures and providing capacity building in the region, and by exploring opportunities of joint financing programs.</p>
<p><b>REFERENCE(S):</b></p> <ul style="list-style-type: none"> <li>▪ ICAO Doc 7475: Working Arrangements Between the International Civil Aviation Organization and the World Meteorological Organization</li> <li>▪ ICAO Doc 9750: The Global Air Navigation Plan</li> <li>▪ Technical Regulations (WMO-No. 49), Volume I, General Meteorological Standards and Recommended Practices <a href="#">[link]</a></li> <li>▪ Technical Regulations (WMO-No. 49), Volume II, Meteorological Service for International Air Navigation <a href="#">[link]</a></li> <li>▪ Guide to Services for Aviation (WMO-No. 732) <a href="#">[link]</a></li> <li>▪ Guide to Aeronautical Meteorological Services Cost Recovery: Principles and Guidance (WMO-No. 904) <a href="#">[link]</a></li> </ul>
<p>This information paper relates to ICAO Strategic Objectives: A – Safety, B – Air Navigation Capacity and Efficiency</p>

1. INTRODUCTION

1.1 The World Meteorological Organization (WMO) has had a close working relationship with the International Civil Aviation Authority (ICAO) since the Working Arrangements between the two Organizations came in force on 1 January 1954. The relationship has seen seamless coordination, collaboration, and cooperation on the provision of aviation meteorological services by developing and guiding implementation of international standards and procedures especially as it relates to the National Meteorological and Hydrological Services that are aeronautical meteorological service providers (AMSPs).

- 1.2 WMO has regional presence in Africa through the WMO Regional Office for Africa located in Addis Ababa, Ethiopia and with Representative Offices in Nairobi, Kenya and Abuja, Nigeria that provide support to Member States on the provision of hydrometeorological services, including services to the aviation sector. The WMO Regional Office assist in WMO's collaboration with regional international bodies and links up Africa to WMO Headquarters.
- 1.3 There is need for stronger collaboration between WMO and ICAO Regional Offices to better understand and support Member States in addressing Africa's unique challenges relating to aviation meteorological services in Africa.

## **2. DISCUSSIONS**

- 2.1 Over the last two years WMO Regional Office for Africa (WMO RAF) together with the ICAO Offices in Africa have engaged in discussions with Member States to continuously improve systems and services supporting aviation meteorology.
- 2.2 In August 2022, WMO RAF and ICAO Eastern and Southern African (ESAF) and ICAO West and Central Africa (WACAF) Regional Offices jointly organized a workshop on Aviation Meteorology Cost Recovery Strategy in Africa where it was agreed that AMSPs in Africa require enormous funding options to perform their functions effectively, including provision of aeronautical meteorological services. It was also acknowledged that there was a need to review how national meteorological service providers currently recover costs associated with the provision of aeronautical meteorological services. Many Member States undertake minimal or no cost recoveries for aeronautical meteorological services, which impacts the quality of services and undermines the safety of our skies.
- 2.3 Recently, WMO RAF participated in the ICAO ESAF Regional Seminar on Aeronautical Meteorology, held in Windhoek, Namibia, 4-6 June 2024. In this meeting, various deficiencies were highlighted that include 1). Infrastructural needs for data collection, processing for nowcasting and forecasting purposes, and dissemination to aviation users, 2). Challenges related to Quality Management Systems compliance and implementation, 3). Challenges related to Cost recovery efforts, 4). Challenges related to implementation of competency frameworks, 5) Challenges related to establishing Meteorological Watch Offices and maintain 24/7 operations, 6). inadequate skills development and 7) the need for development of the Aircraft Meteorological DATA Relay (AMDAR) program to enroll more airlines from Africa.
- 2.4 Sequel to discussions at the abovementioned workshop, and in recognition of the Working Arrangements between ICAO and WMO (*under 1.1 – General Exchange of Privileges*) to freely advise and consult each other as well as to give fullest possible rein to advisory and consultative status, WMO RAF is providing this information paper, on issues and proposals to address them, that can be discussed at the opportunity of their participation at the APIRG IMSG 7th meeting or any following-on coordination opportunity for ICAO and WMO Regional Offices for Africa to work together:
  - Regular consultations between ICAO and WMO Regional Offices for Africa and joint programming could be established to enhance compliance of African AMSPs with ICAO Annex 3 requirements including those related to QMS implementation, competency of aeronautical meteorology personnel and OPMET data provision and

exchange; the establishment of a joint ICAO-WMO Regional roadmap would assist for those purposes; it would consider initiatives to enhance capacity building in the areas of competency frameworks, quality management systems and delivery of services to ensure highest standards;

- ICAO and WMO Regional Offices should actively engage their respective members in discussions about challenges related to aviation meteorology at regional platforms designed for high-level policy makers e.g., infrastructure, Bulletin exchange model etc.
- Coordination and collaboration between AMSPs and Civil Aviation Authorities at national level has been lacking in several African countries; it should be encouraged in order to strengthen their partnership;
- Data availability over the African air space remains poor; in order to enhance it, the Aircraft Meteorological DATA Relay (AMDAR) program should be promoted through the enrollment of more airlines in Africa.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to note the information presented in this information paper, and to consider the challenges that African AMSPs have been facing with and proposals to address these issues, as raised in §2.3 and 2.4.

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