



INTERNATIONAL CIVIL AVIATION ORGANIZATION

Ninth Meeting of the AASPG Infrastructure and Information Management Sub-Group (IIM/SG9)

Dakar, Senegal, from 3 to 7 August 2026

Agenda Item 3: Achievements in Infrastructure and Information Management

3.4 Progress in the Implementation of the AASPG IIM Projects

WP3.4Q: Progress in the implementation of the AASPG IIM Project – Strengthening Windshear Warning capabilities within the AFI Region (AFI – WRN)

(Presented by PTC, AFI WRN Project)

SUMMARY
This working paper outlines the progress made by the AFI-WRN MET project team towards the achievement of the project objectives in strengthening windshear (WS) warning capabilities within the AFI region. It highlights the key activities undertaken, milestones achieved, and challenges encountered in advancing the project's objectives. Action by the meeting in paragraph 3.
REFERENCE(S): ▪ AASPG/1 Report ▪ AASPG Procedural handbook ▪ Annex 3 - Meteorological Service for Air navigation ▪ ICAO Doc. 9817 - Manual on Low level Wind shear ▪ ICAO Doc. 8896 - Manual of Aeronautical Meteorological Practice ▪ ICAO Doc. 10157 - PANS-MET ▪ ICAO Doc. 9377 - Manual on Coordination between Air Traffic Services, Aeronautical Information Services and Aeronautical Meteorological Services ▪ ICAO Doc. 10003 - Manual on the ICAO Meteorological Information Exchange Model ▪ Global Air Navigation Plan (GANP) ▪ Global Aviation Safety Plan (GASP)
This working document relates to ICAO Strategic Goals: ▪ A – <i>Every Flight is Safe and Secure</i> ▪ C – <i>Aviation delivers Seamless, Accessible and Reliable Mobility for All</i>

1. INTRODUCTION

- 1.0 Wind shear poses a serious hazard to aircraft during takeoff and landing. The significance of wind shear to aviation lies in its effect on aircraft performance and hence its potentially adverse effects on flight safety.
- 1.1 Although wind shear may be present at all levels of the atmosphere, its occurrence in the lowest level, within 500 m (1 600 ft) of runway level, is of particular importance to aircraft landing and taking off. During the climb-out and approach phases of flight, aircraft airspeed and height are near critical values, therefore rendering the aircraft especially susceptible to the adverse effects of wind shear.
- 1.2 Many States in the AFI region lack operational windshear (WS) detection systems, harmonized procedures and trained personnel to provide timely warnings. ICAO Annex 3 requires States to provide WS warnings at aerodromes where wind shear is considered a factor, yet capacity and infrastructure remain uneven across the region.
- 1.3 The AFI-WRN MET Project, implemented under the auspices of the Africa – Indian Ocean Aviation System Planning and Implementation Group (AASPG) Infrastructure and Information Management (IIM) Project, aims to address these gaps by supporting States of the AFI region in implementing ICAO Annex 3 provisions related to wind shear detection and warning, enhancing aviation safety through timely and accurate WS information at aerodromes and ensuring equitable safety standards across the region.
- 1.4 The scope of the project includes
 - Assessment of WS risks at key aerodromes.
 - Guidance on the development and implementation of WS detection and warning systems depending on the types of WS.
 - Establishment of standard procedures (SoPs) for WS observation, reporting, and dissemination.
 - Training for Aeronautical Meteorology, Air Traffic Control, and airline operational personnel on WS related SOPs, their interpretation, and response.
 - Development of guidance material and regional coordination mechanisms including specific provisions for knowledge transfer and mentoring for states with limited current operational capabilities.
 - Support the No Country Left Behind (NCLB) initiative by providing a clear, accessible pathway for all States regardless of their current level of development to enhance aviation safety, thereby embodying ICAO's commitment to inclusive and sustainable progress.
- 1.5 States with international airports exposed to frequent convective activity, terrain-induced shear or micro-bursts particularly where windshear monitoring or warning services are absent or limited are of interest,
- 1.6 This working paper presents an update on the progress of the AFI-WRN MET Project Team in achieving its objectives, including key achievements and challenges experienced.

2. DISCUSSIONS

Activities conducted

- 2.0 The project launch meeting was held on 13 May 2026, during which the Secretariat shared the project documentation, and the Project Technical Committee (PTC) was nominated.
- 2.1 Thereafter, the AFI-WRN project team has, to date, conducted three virtual meetings. The introductory meeting was held on 3 June 2026, followed by a second meeting on 17 June 2026 that focused on the development of the data collection tool. The third meeting, held on 3 July 2026, was dedicated to drafting the working paper for presentation at AASPG meeting as well as reviewing and refining the draft data collection tool.
- 2.2 Development of the questionnaire through consultations among the project team members. The process involved the preparation of structured questions incorporating both quantitative and qualitative data elements to facilitate comprehensive data collection.
- 2.3 A review of relevant ICAO documents was also undertaken to ensure alignment with international standards and recommended practices.
- 2.4 The data collection tool was also reviewed and validated by the ICAO Secretariat to ensure that it conforms to the project description and meets the intended project objectives.
- 2.5 Development of the work plan through consultations with team members and a review of the project description to ensure the planned activities are aligned with the project's objectives and expected outcomes.

Achievements

- 2.6 Developed a comprehensive and standardized data collection instrument.
- 2.7 Ensured alignment of the questionnaire with applicable ICAO standards and recommended practices.
- 2.8 Prepared and submitted the questionnaire for regional distribution and data gathering activities in collaboration with the ICAO secretariat.
- 2.9 Developed a work plan to facilitate the effective implementation and monitoring of the project activities.

Challenges

- 2.10 Communication challenges have also been noted. The project team comprises both English and French speaking participants. The use of English as the sole working language has affected effective participation and deliberations during meetings.
- 2.11 To address this challenge, the duration of meetings will be extended to allow sufficient time for in-house interpretation and consultations in both languages. Furthermore, the project team has adopted a bilingual documentation policy to guarantee that all technical guidance materials and questionnaires are equally accessible to all stakeholders in the region.

3. ACTIONS BY THE MEETING

- 3.1 The meeting is invited to:
 - a) Note the information contained in this paper,
 - b) Appreciate the progress made by the AFI-WRN MET Project Team and provide guidance to support further improvements and the successful implementation of the project.

- c) Encourage States and Organizations to take appropriate actions to support their nominated experts appointed to the AFI-WRN MET project;

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