



# WMO OMM

World Meteorological Organization  
Organisation météorologique mondiale  
Organización Meteorológica Mundial  
Всемирная метеорологическая организация  
المنظمة العالمية للأرصاد الجوية  
世界气象组织

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Nuestra ref.: 22130/2023/S/AVI/AeroMetSci-Webinar

19 de octubre de 2023

Anexo: 1 (disponible en inglés solamente)

Asunto: Seminario web científico de la Organización Meteorológica Mundial sobre meteorología aeronáutica (7 de diciembre de 2023)

Finalidad: Difundir el presente anuncio entre las partes interesadas y velar por que los participantes completen el formulario de inscripción  
**no más tarde del 15 de noviembre de 2023**

Estimado señor/Estimada señora:

Me complace informarle de que la Comisión de Aplicaciones y Servicios Meteorológicos, Climáticos, Hidrológicos, Marinos y Medioambientales Conexos (SERCOM) de la Organización Meteorológica Mundial (OMM) organizará un seminario web el 7 de diciembre de 2023, de 17.00 a 20.00 UTC, para presentar algunos de los avances científicos y tecnológicos más punteros que se están produciendo en el ámbito de la meteorología aeronáutica en la Asociación Regional III (América del Sur) y la Asociación Regional IV (América del Norte, América Central y el Caribe) de la OMM. Este seminario web da continuación a los correspondientes seminarios web celebrados con gran éxito en todas las Regiones de la OMM en junio de 2022.

El título del seminario web es "La innovación científica y tecnológica en la observación y el pronóstico de la turbulencia y el engelamiento de la célula para propiciar la transformación de la prestación de servicios y mejorar la seguridad de la aviación".

El objetivo del seminario web será mostrar los avances científicos y tecnológicos en el ámbito de las observaciones, los pronósticos, las advertencias y los avisos meteorológicos, en especial la aplicación de la inteligencia artificial y el aprendizaje automático, así como analizar en profundidad la integración de los servicios de información meteorológica que respaldan la adopción de decisiones en el sistema mundial de gestión del tránsito aéreo. En el marco del seminario web se abordarán brevemente las iniciativas de investigación climática que pueden redundar en una mayor comprensión de los posibles efectos de un clima cambiante en las operaciones de aviación. Para obtener más información al respecto, sírvase consultar la [nota conceptual](#) que figura en el anexo a la presente carta (disponible en inglés solamente), así como la [página web del seminario web](#).

El evento constará de una combinación de presentaciones en video pregrabadas y de mesas redondas en directo, y durante el mismo se prestarán servicios de interpretación simultánea en inglés y español. Habida cuenta de que esta actividad se desarrollará en línea, es esencial que los participantes dispongan de un acceso adecuado a la internet pública y, en particular, que cuenten con suficiente ancho de banda. A fin de inscribirse en el evento pertinente, cada participante deberá completar el [formulario de inscripción en el seminario web no más tarde del 15 de noviembre de 2023](#). Si precisa de información adicional, sírvase ponerse en contacto con la División de Servicios para la Aviación de la OMM ([aviation@wmo.int](mailto:aviation@wmo.int)).

Le agradecería que diera la mayor difusión posible a este anuncio, tanto en su Servicio como entre otras organizaciones pertinentes de su país.

Le saluda atentamente.



Dra. Elena Manaenkova  
por el Secretario General

**WMO AERONAUTICAL METEOROLOGY SCIENTIFIC WEBINARS 2023****5, 6 and 7 December 2023 (*online*)****CONCEPT NOTE****1. BACKGROUND AND RATIONALE**

- 1.1. In November 2017, an Aeronautical Meteorology Scientific Conference (AeroMetSci-2017) was convened in Toulouse, France by the World Meteorological Organization (WMO), Météo-France and other co-sponsors. The Conference addressed:
- (a) Science underpinning meteorological observations, forecasts, advisories and warnings;
  - (b) Integration, use cases and fit-for-purpose service delivery;
  - (c) The impacts of climate change and variability on aviation operations and associated science requirements.
- 1.2. More than 200 participants attended AeroMetSci-2017. The overwhelmingly positive feedback clearly indicated that WMO should conduct a similar Conference within five years to foster early technological transfer in order for Members to be well prepared for the progressive transformation from a conventional "product-centric" approach to a modern "information-centric" approach to MET service provision, as articulated in the WMO long-term plan for aeronautical meteorology (LTP-AeM) as well as the International Civil Aviation Organization (ICAO) Global Air Navigation Plan (GANP).
- 1.3. The WMO Services Commission (SERCOM) Standing Committee on Services for Aviation (SC-AVI) had intended to convene the next (physical) AeroMetSci Conference in 2021. However, due to the unforeseen and unprecedented impact of the COVID-19 pandemic on international travel, the Conference has been postponed to 2024. This revised time frame for the physical Conference will serve as an approximate midpoint of research activities linked to Phase 2 of an Aviation Research and Development Project (AvRDP2), a joint collaboration between the Research Board (RB) World Weather Research Programme (WWRP) and SERCOM SC-AVI.
- 1.4. Given the prevailing postponement of the physical Conference and in order to maintain community interest and engagement, the SERCOM SC-AVI, with the support of the RB and Infrastructure Commission (INFCOM) as necessary, is conducting a series of web-based seminars ('webinars') to showcase some of the latest state-of-the-art scientific and technological advances taking place in aeronautical meteorology. The first round of webinars was held in June 2022 and attracted more than 250 online participants. A second round of webinars is scheduled for December 2023. These webinars, convened across all six WMO Regions, are helping to promote awareness within and stimulate collaboration across national meteorological services and others involved in the provision and use of meteorological service for international air navigation, with a particular focus on key meteorological hazards of concern to aviation such as severe convection or turbulence.

## **2. OBJECTIVE AND THEME**

- 2.1. Building on the success of AeroMetSci-2017 and taking into account the current and foreseen modernization of meteorological service for international air navigation in line with ICAO GANP and WMO LTP-AeM, the objective of the webinars is to further showcase scientific and technological advances, for instance the application of artificial intelligence (AI) and machine-learning (ML), in meteorological observations, forecasts, advisories and warnings as well as expand focus on the integration of meteorological information decision-support services into the global air traffic management system. The webinars also briefly cover climate research efforts that may offer insights into the potential impacts of a changing climate on aviation operations.
- 2.2. The theme of the 2023 webinars series will be:  
 "Scientific and technological innovation in observation and forecast of turbulence and airframe icing to enable service delivery transformation and improve aviation safety"

## **3. EXPECTED OUTCOME AND OUTPUTS**

- 3.1. The webinars will serve to help WMO refine a common vision for scientific and technological research and development, increase visibility of AvRDP2, and allow for a more objective assessment of the current and expected operational capability of aeronautical meteorological service providers in the next 5 to 10 years. In addition, the webinars will help inform WMO's advice to ICAO, for example in respect of the hazardous weather information service (HWIS) concept and industry efforts to mitigate the effects of and adapt to a changing climate.
- 3.2. Outputs of the webinars will include a final report comprising an overview of the presentations and a summary of the panel discussions as well as recommendations to help guide or direct future work and preparations for a physical AeroMetSci Conference.

## **4. STAKEHOLDERS AND PARTNERS**

- 4.1. A broad array of internationally recognized scientific research partners, aviation stakeholders and other parties are expected to express interest in the webinars, including:
- (a) WMO Member States and Territories, technical commissions, regional associations and other bodies;
  - (b) Scientific research institutes, universities and other academia;
  - (c) International aviation organizations/associations such as ICAO, IATA, IFALPA, IFATCA, ACI and CANSO and others from the international aviation industry;
  - (d) National or regional air traffic management modernization programmes such as SESAR (Europe), NextGen (USA) and CARATS (Japan);
  - (e) Meteorological instrumentation systems, data processing and display providers, including associate members of HMEI;
  - (f) Public and private meteorological service providers serving international civil aviation.

## 5. FORMAT AND RESPONSIBILITIES

- 5.1 The webinars will comprise a blend of pre-recorded video presentations and live panel discussions involving renowned experts and agencies from across the aeronautical meteorology community.
- 5.2 The webinars will be conducted across multiple WMO Regions (multiple time zones) in order to reach a global audience, provisionally as follows:

<b>UTC</b>	<b>Tuesday 5 December 2023</b>	<b>Wednesday 6 December 2023</b>	<b>Thursday 7 December 2023</b>
<b>0600–0900</b>	RA II (Asia) and RA V (South-West Pacific)		
<b>1100–1400</b>		RA I (Africa) and RA VI (Europe)	
<b>1700–2000</b>			RA III (South America) and RA IV (North America, Central America and the Caribbean)

- 5.3 The SC-AVI, through its Expert Team on Weather and Climate Science for Aviation Applications (ET-WCS) and with the support of others as necessary, will be responsible for leading the planning, preparation and conducting of the webinars and for reporting on the outcomes to SERCOM and others concerned.
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