

**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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2022 年 4 月 20 日

附件: 1 个 (仅以英文提供)

主题: WMO 航空气象科学网络研讨会 (2022 年 6 月 7 日)

要求采取的行动: 将公告分发给有关各方, 并确保参会人员于 **2022 年 5 月 23 日前** 通过该网络研讨会网站注册

尊敬的先生/女士,

我谨欣然通知您, 世界气象组织 (WMO) 服务委员会 (SERCOM) 将与研究理事会 (RB) 航空研究与开发项目 2 (AvRDP2) 合作, 于 2022 年 6 月 7 日协调世界时 4:00-7:00 点召开一次网络研讨会, 以展示 WMO 二区域 (亚洲) 和五区域 (西南太平洋) 在航空气象方面取得的一些最新科技进展。

本次网络研讨会的主题是: “强对流天气观测和预报中的科技创新, 以期转变服务提供方式并提升航空安全”。

本次网络研讨会的目的是展示科学和技术进步, 特别是人工智能 (AI) 和机器学习 (ML) 在气象观测、预报、咨询和警报方面的应用, 并加大对将气象信息决策支持服务纳入全球空中交通管理系统的关注。网络研讨会将简要介绍气候研究工作, 或可有助于深入了解气候变化对航空运营的潜在影响。更多信息请见本公告附件中的概念说明 (仅提供英文) 和网络研讨会网站:

<https://community.wmo.int/activity-areas/aviation/events/aerometsci-webinars-2022/ra-2-ra-5>。

本次网络研讨会将包括预先录制的视频报告和现场嘉宾讨论。网络研讨会的工作语言仅为英语。鉴于研讨会的在线性质, 与会者须能接入必要和适当的公共互联网, 包括足够的带宽容量。请于 **2022 年 5 月 23 日前** 通过网站完成此次网络研讨会的注册。有关网络研讨会的任何咨询, 请联络 WMO 航空服务处 (电子邮件: [aviation@wmo.int](mailto:aviation@wmo.int))。

烦请将此公告在贵部门内外广为散发。

您诚挚的

埃琳娜·玛娜妍科娃博士  
代秘书长

致: WMO 会员 RA II (亚洲) 和 RA V (西南太平洋) 常任代表 (有限分发)

**WMO AERONAUTICAL METEOROLOGY SCIENTIFIC WEBINARS 2022****7, 8 and 9 JUNE 2022 (*online*)****CONCEPT NOTE**

Ref.: 04308/2022-132 S/AVI

**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: i) science underpinning meteorological observations, forecasts, advisories and warnings; ii) integration, use cases and fit-for-purpose service delivery; and iii) 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 5 years to foster early scientific and 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 at the earliest. This revised time frame for the physical Conference will serve as an approximate mid-point 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, will conduct a series of web-based seminars (‘webinars’) in 2022 (and potentially 2023) to showcase some of the latest state-of-the-art scientific and technological advances taking place in aeronautical meteorology. These webinars, convened across the WMO regions, will serve to promote awareness within and stimulate collaboration across national meteorological services and others involved in the provision and use of meteorological services for international air navigation, with a particular focus on key meteorological hazards of concern to aviation such as severe convection.

**2. OBJECTIVE AND THEME**

- 2.1. Building on the success of AeroMetSci-2017 and taking into account the current and foreseen modernization of meteorological services for international air navigation in line with ICAO GANP and WMO LTP-AeM, the objective of the webinars will be to further showcase scientific and technological advances, in particular the application of artificial intelligence (AI) and machine-learning (ML), in meteorological observations, forecasts, advisories and warnings as well as expand the focus on the integration of meteorological information decision-support services into the global

air traffic management system. The webinars will 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 2022 webinars will be:

*“Scientific and technological innovation in observation and forecast of severe convection 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, and
  - (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:

| UTC                   | Tuesday<br>7 June 2022                        | Wednesday<br>8 June 2022            | Thursday<br>9 June 2022  |
|-----------------------|---|-------------------------------------|--|
| <b>0400–<br/>0700</b> | RA II (Asia) and<br>RA V (South-West Pacific) |                                     |  |
| <b>1100–<br/>1400</b> |   | RA I (Africa) and<br>RA VI (Europe) |  |
| <b>1600–<br/>1900</b> |   |                                     | RA III (South America) and<br>RA IV (North America,<br>Central America and the<br>Caribbean) |

- 5.3 The SC-AVI, through its Expert Team on Aeronautical Meteorological Hazards Science (ET-MHS), with the support of the Expert Team on Impacts of Climate Change and Variability on Aviation (ET-CCV) and 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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