



Ref.: 22129/2023-L8 S/AVI

Наш исх.: 22129/2023/S/AVI/AeroMetSci-Webinar

19 октября 2023 г.

Приложение: 1 (только на английском языке)

Вопрос: Научный вебинар ВМО по авиационной метеорологии 5 декабря 2023 г.

Предлагаемые меры: Распространить объявление среди заинтересованных лиц и обеспечить саморегистрацию участников через форму регистрации на вебинар **не позднее 15 ноября 2023 г.**

Уважаемый господин/Уважаемая госпожа!

Позвольте сообщить Вам, что 5 декабря 2023 года с 06:00 до 09:00 ВСВ Комиссия Всемирной метеорологической организации (ВМО) по метеорологическому, климатическому, гидрологическому, морскому и другим связанным с ними видам обслуживания и применений в области окружающей среды (СЕРКОМ) проведет веб-семинар (вебинар) для демонстрации некоторых новейших научно-технических достижений в области авиационной метеорологии в Региональной ассоциации II (Азия) и Региональной ассоциации V (Юго-западная часть Тихого океана). Данный вебинар проводится после успешного проведения соответствующей серии вебинаров во всех Регионах ВМО в июне 2022 г.

Тема вебинара: «Научно-технические инновации в наблюдении и прогнозировании турбулентности и обледенения корпуса самолета для обеспечения трансформации предоставления обслуживания и повышения безопасности полетов».

Целью вебинара будет демонстрация научно-технических достижений, в частности применения искусственного интеллекта (ИИ) и машинного обучения (МО), в метеорологических наблюдениях, прогнозах, сводках и предупреждениях, а также расширение внимания к интеграции служб поддержки принятия решений на основе метеорологической информации в глобальную систему управления воздушным движением. На вебинаре будет кратко рассказано об исследованиях климата, которые могут дать представление о потенциальном воздействии меняющегося климата на авиационные операции. Дополнительная информация представлена в [Концептуальной записке](#) (только на английском языке), прилагаемой к данному письму, и на [сайте](#) вебинара.

Вебинар будет состоять из предварительно записанных видеопрезентаций и живых дискуссий. Рабочим языком вебинара будет английский. Учитывая онлайн-характер данного вебинара, важно, чтобы участники имели необходимый и устойчивый доступ к интернету, включая достаточную скорость соединения. Регистрация на выбранный вебинар должна быть осуществлена каждым участником через [регистрационную форму вебинара](#), **не позднее 15 ноября 2023 г.** Любые вопросы, касающиеся вебинара, следует направлять в Отдел авиационного обслуживания ВМО: aviation@wmo.int.

Я буду признательна, если Вы сможете широко распространить это объявление в вашей Службе и других соответствующих организациях в вашей стране.

С уважением,



д-р Елена Манаенкова
за Генерального секретаря

WMO AERONAUTICAL METEOROLOGY SCIENTIFIC WEBINARS 2023**5, 6 and 7 December 2023 (*online*)****CONCEPT NOTE**

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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 5 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, and
- (f) Public and private meteorological service providers serving international civil aviation.

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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 5 December 2023	Wednesday 6 December 2023	Thursday 7 December 2023
0600–0900	RA II (Asia) and RA V (South-West Pacific)		
1100–1400		RA I (Africa) and RA VI (Europe)	
1700–2000			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.
