



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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附件: 1 (仅提供英文版本)

主题: WMO 航空气象科学大会 (AeroMetSci-2024) 的公告及论文摘要征集

要求采取的行动: 向有关各方分发公告并于 **2024年6月21日**前提交论文摘要

尊敬的先生/女士,

谨通知您, 世界气象组织 (WMO) 天气、气候、水文、海洋及相关环境服务与应用委员会 (SERCOM) 正在组织航空气象科学大会 (AeroMetSci-2024)。会议将于 2024 年 10 月 21 日至 25 日在瑞士日内瓦 WMO 总部举行。

此次大会的主题是“航空、天气与气候: 气候变化下科学研究与发展促进加强航空气象服务”。

此次大会的目的是展示气象观测、预报、咨询和警报方面的科技进步, 扩大气象信息决策支持服务融入全球空中交通管理系统的重点, 并进一步研究气候变化和变率对航空的影响。更多信息, 包括预期受众, 见附件中的概念说明 (也可在会议网站上查阅: <https://community.wmo.int/activity-areas/aviation/meetings/aerometsci-2024>)。

此次大会面对面参加, 完全以英语进行。会议将包括全体会议主旨报告、研究论文报告、国家和区域案例研究以及小组讨论。还将举行海报展示会。分会主题包括:

- 分会 1 – 气象观测、临近预报、确定性预报和概率预报的科学依据
- 分会 2 – 基于影响的信息和航空决策支持服务
- 分会 3 – 科学认识气候变化对航空和航空环境问题的影响

最迟应于 2024 年 9 月 20 日之前通过[会议注册表](#) (也可在[会议网站](#)上获取) 完成会议注册。

通过本公告, 我谨邀请各位最迟于 **2024 年 6 月 21 日**通过填写[会议网站](#)上的《论文摘要提交表》或在注册参会后通过电子邮件收到的《论文摘要提交表》提交论文摘要。科学委员会将根据收到的论文摘要遴选口头报告和海报展示论文。WMO 可考虑提供有限的财政资助, 以支付被选中作口头报告或海报的发展中国家与会者的旅费和/或生活津贴。在提交论文摘要时, 应明确说明需要财政资助的请求。

关于非工作人员的保险范围, 谨请您注意以下几点:

致: WMO 会员常任代表
国际民用航空组织 (ICAO)
国际航空运输协会 (IATA)
非洲和马达加斯加航空安全局 (ASECNA)
国际航空公司飞行员协会联合会 (IFALPA)

抄送: 水文顾问
观测、基础设施与信息系统委员会 (INFCOM) 主席
天气、气候、水文、海洋及相关环境服务与应用委员会 (SERCOM) 主席
研究理事会主席
区域协会主席

获准由本组织出资旅行和/或从 WMO 领取 DSA 的非 WMO 工作人员须确保其对代表本组织公务旅行和出席会议期间因死亡、疾病或伤害发生的费用完全负责。因此，他们须全权负责为这些会议和活动期间安排人寿、健康、意外和任何其他形式的足额保险。

WMO 的责任仅限于代表本组织从事服务或出席会议，由伤害和疾病福利保险覆盖，该保险有限覆盖医疗、急诊和补充公务差旅费。

如需向 WMO 秘书处查询会议信息，请联系 WMO 航空服务处科学干事 Stéphanie Wigniolle 女士 (aviation@wmo.int)。

烦请将此公告在贵部门内或贵国从事航空气象研究或提供服务的其他相关组织中广为分发。

谨上，



席列斯特·绍罗教授
秘书长

**WMO AERONAUTICAL METEOROLOGY SCIENTIFIC CONFERENCE 2024
(AeroMetSci-2024)**

Geneva, Switzerland

21 to 25 October 2024

CONCEPT NOTE

1. BACKGROUND AND RATIONALE

1.1. In 2017, a WMO Aeronautical Meteorology Scientific Conference (AeroMetSci-2017) was held in Toulouse, France. The conference addressed: (1) science underpinning meteorological observations, forecasts, advisories and warnings; (2) integration, use cases and fit-for-purpose service delivery; and (3) the impacts of climate change and variability on aviation operations and associated science requirements.

1.2. Feedback obtained from participants of AeroMetSci-2017 clearly indicated that WMO should conduct a similar conference within 5 years. Due to the unforeseen and unprecedented impact of the COVID-19 pandemic, the Standing Committee on Services for Aviation (SC-AVI) of the WMO Services Commission (SERCOM) had to postpone the next (physical) AeroMetSci Conference from its initial target time frame, 2021, to 2024.

1.3. In the meantime, in order to maintain community interest and engagement, the SERCOM SC-AVI conducted a series of web-based seminars ('webinars') in 2022 and 2023 to showcase some of the latest state-of-the-art scientific and technological advances taking place in aeronautical meteorology. These webinars served 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. The SC-AVI, through its Expert Team on Weather and Climate Science for Aviation Applications (ET-WCS), the merger of its two former expert groups, were responsible for leading the planning, preparation and conducting of the two editions of the webinars and for reporting on the outcomes to SERCOM and others concerned.

1.4. SC-AVI, with the assistance of its subsidiary body ET-WCS and others as necessary, will assist WMO in the convening of AeroMetSci-2024. Outcomes of the 2022 and 2023 webinars will serve as a basis for the construction of AeroMetSci-2024 programme from a scientific and technological perspective aiming at prioritizing recommendations for the future development of the science of aeronautical meteorology.

2. OBJECTIVE AND THEME

2.1. Building on the success of AeroMetSci-2017 and 2022 and 2023 webinars and taking into account the current and foreseen modernization of meteorological service for international air navigation in line with the Global Air Navigation Plan (GANP) and aviation system block upgrades (ASBU) methodology of the International Civil Aviation Organization (ICAO), the objective of the AeroMetSci-2024 conference will be to further showcase scientific and technological advances in meteorological observations, forecasts, advisories and warnings, expand focus on the integration of meteorological information decision support services into the global air traffic management system, and deeply examine the impacts of climate change and variability on aviation.

2.2 The theme (working title) of the conference will be: "Aviation, weather and climate: scientific research and development for enhanced aeronautical meteorological services in a changing climate".

3. EXPECTED OUTCOME AND OUTPUTS

3.1. The expected outcome of the conference will be a refinement of the common vision for scientific and technological research and development activities over the next 10 years or more aligned with the evolving needs and expectations of international civil aviation that have driven the service delivery transformation, and a further raising of awareness of the impacts of climate change and variability on aviation operations now and into the future.

3.2. The conference will also demonstrate how the science evolution would support but also has driven the major service delivery transformation that the aeronautical meteorology community has started and will continue facing with in the coming decade. Recommendations for the future meteorological information service to air navigation would be derived as outcomes from the conference and would assist the on-going updating of the WMO Long Term Plan for Aeronautical Meteorology.

3.3. Outputs of the conference will include a set of recommendations and a statement to guide domestic, regional and/or global strategies on scientific and technological advancement in support of meteorological service for international civil aviation. The proceedings of the conference will be published as a WMO Publication comprising scientific articles, presentations, etc. to ensure outreach to all interested stakeholders.

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 conference, including:

- (a) WMO Member States and Territories, technical commissions and their subsidiary bodies, regional associations and other constituent bodies;
- (b) Scientific research institutes, universities and other academia;
- (c) International aviation organizations/associations such as the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA), International Federation of Air Line Pilots' Associations (IFALPA), the International Federation of Air Traffic Controllers' Associations (IFATCA), the Airports Council International (ACI) and the Civil Air Navigation Services Organization (CANSO) and others from the international aviation industry involved in national or multinational air traffic management modernization initiatives;
- (d) Meteorological instrumentation systems, data processing and display providers, including associate members of the HydroMeteorological and Environmental Industry (HMEI); and
- (e) Public and private meteorological service providers serving international civil aviation.

5. FORMAT AND RESPONSIBILITIES

5.1. The conference will comprise a blend of keynote presentations, national and regional case studies and panel discussions taking into account leading scientific/academic research and aviation industry best practices and developments. Poster sessions will also take place.

5.2. The basic programme structure for the conference will focus on:

- (a) Session 1: Science underpinning meteorological observations, nowcasting and deterministic and probabilistic forecasts

This session will address research and scientific developments for enhanced 4-dimensional information of aviation weather hazards, such as convection and associated phenomena including ice crystals icing, turbulence of any type, low level wind shear, airframe icing, winter weather, fog and other reduced visibility conditions such as sandstorm or smoke, and other hazards.

It will consider meteorological information for all phases of flight as well as a diversity of aviation users including the new entrants such as unmanned aerial vehicles and urban air mobility.

- (b) Session 2: Impact-based information and decision support services for aviation

This session will address the challenges that the production of impact-based information and its integration into decision support systems pose to meteorological information service providers and to aviation stakeholders. It will also consider the availability of meteorological information and service delivery to support collaborative decision making (CDM) and trajectory-based operations (TBO) in the system-wide information management (SWIM) context.

- (c) Session 3: Science to understand the impacts of climate change on aviation and aviation environmental issues

The third session will be aiming at further investigating the impacts of climate change on aviation operations, from the surface to cruise flight levels. It will also consider the science and recent progress made in understanding some of the aviation environmental issues such as contrails.

5.3. A Scientific Organizing Committee (SOC) comprising SC-AVI ET-WCS members will assist WMO in the shortlisting and selection of oral and poster presentations for the conference taking into consideration the abstracts received. In addition, several WMO Secretariat departments and divisions will assist with logistics and outreach for the event such as funding, sponsorship, hospitality, agenda and programme schedule, invitations, communications and other related publicity.