

# **Insights into EASA Medical Team activities**



**CCAA AME Refresher Training** 

2 December 2023

Mateja KOTNIK KERBEV, EASA Medical Expert

Your safety is our mission.

An Agency of the European Union | | |



# **Facts and figures**

Established 2002

21 years

in operation



aviation experts & administrators

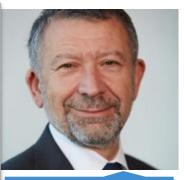


**EASA** member states Switzerland, Norway Iceland, Liechtenstein





USA (Washington)

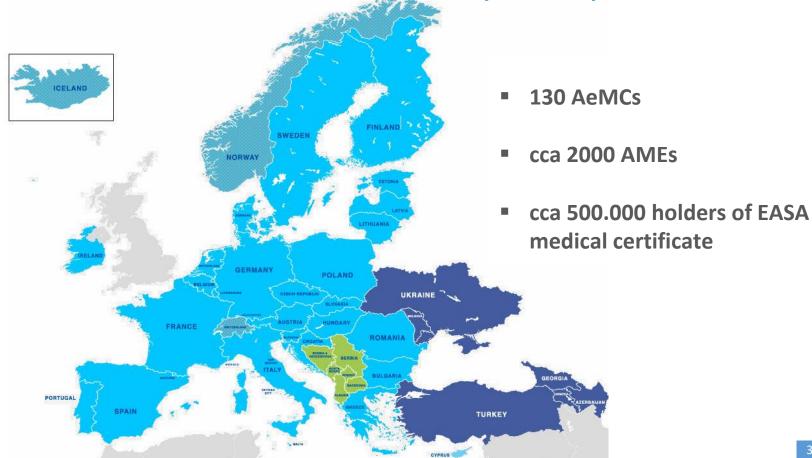


China(Beijing)

Headed by Mr Luc TYTGAT

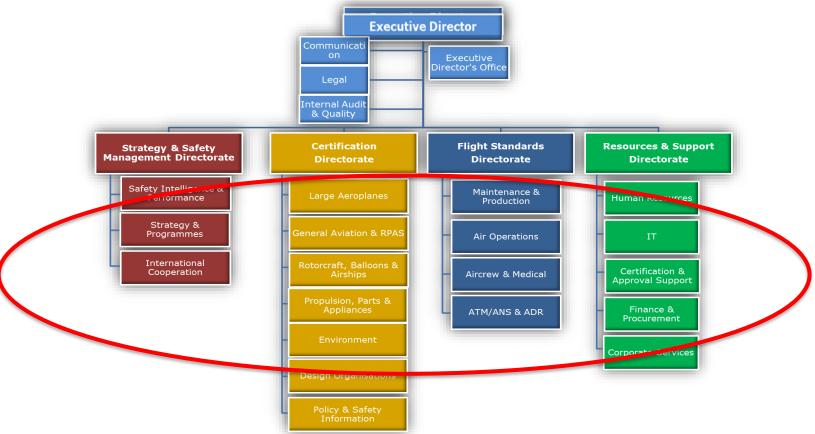


EASA Member states – No. of AeMCs, AMEs, medical cert.

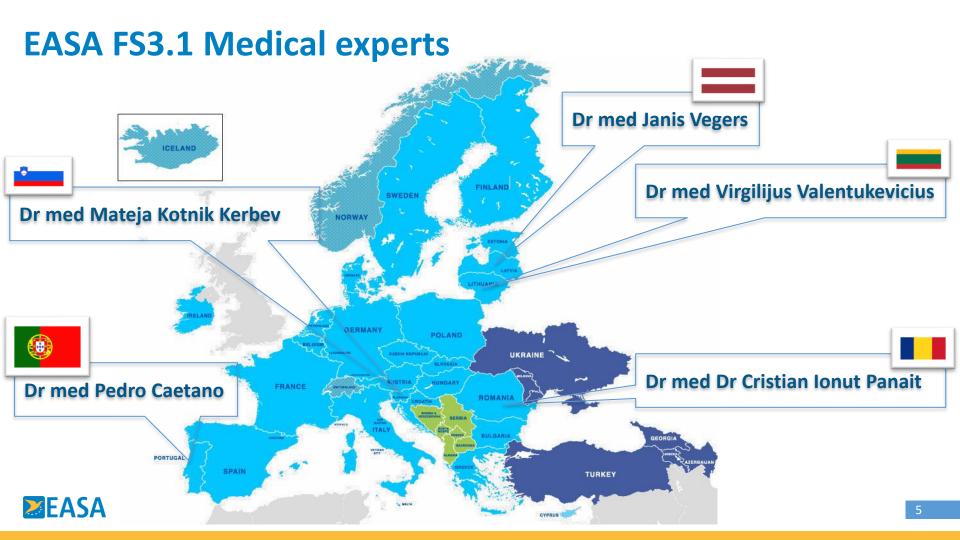




#### **EASA Structure**







### **EASA Medical Activities**

# **Standardization** Rulemaking **International Cooperation** Certification Support Representing EU Aviation Medicine Competent Authority 3<sup>rd</sup> countries Research



### **EASA Medical Activities**

Standardization Rulemaking **International Cooperation** Certification Support Representing EU Aviation Medicine Competent Authority 3<sup>rd</sup> countries Research



# → International implementation and cooperation activities:

- → EU ASA: CASSOA
- → EU China APP
- → EU ACSA (Central America)
- → EU South Asia APP
- → ICAO Mental Health WG
- → ICAO Aviation Medicine



### **EASA Medical Activities**

Standardization Rulemaking **International Cooperation Certification Support** Representing EU Aviation Medicine Competent Authority 3<sup>rd</sup> countries Research



#### **Innovations**

- → eMCO/SiPO
- → HAO Higher Airspace Operations
- → Passenger Breathable Gas Mix Supplemental System project
- → ATCO fatigue study



### **EASA Medical Activities**

Standardization Rulemaking International Cooperation **Certification Support Representing EU Aviation Medicine** Competent Authority 3<sup>rd</sup> countries Research



# **Active participation in international conferences**

- → ASMA
- → ICASM
- → ICAO Medical Provisions Study Group (MPSG) Air Navigation World 2023
- → Aerospace Medicine RAMS / NATO



#### **EASA Medical Activities**

Standardization Rulemaking International Cooperation **Certification Support** Representing EU Aviation Medicine **Competent Authority 3<sup>rd</sup> countries** Research



# **EASA Competent Authority**

- → Centreline Aviation Medical Services, London EASA.AEMC.GBR.004
- → **Heathrow** Medical Services, Heathrow EASA.AEMC.GBR.005
- → Aeromedical Consulting UK, **Birmingham** airport EASA.AEMC.GBR.007



#### THIRD COUNTRY ORGANISATION APPROVALS

LIST OF EASA ATO/AEMC APPROVALS FOLLOWING SUCCESSFUL COMPLETION OF THE BREXIT EARLY APPLICATION PROCESS BY UK APPROVAL HOLDERS ONLY

EASA CERT NR	COMPANY NAME	COUNTRY
EASA.AEMC.GBR.004	AMS LONDON AEMC	UNITED KINGDOM
EASA.AEMC.GBR.005	HEATHROW MEDICAL SERVICES LLP	UNITED KINGDOM
EASA.AEMC.GBR.007	BIRMINGHAM AEROMEDICAL CENTRE	UNITED KINGDOM
EASA.GBR.ATO.0101	ACS AVIATION LIMITED	UNITED KINGDOM
EASA.GBR.ATO.0105	AEROS LIMITED	UNITED KINGDOM
EASA.GBR.ATO.0118	AVIATION SOUTH WEST LIMITED	UNITED KINGDOM
EASA.GBR.ATO.0122	BOURNEMOUTH FLYING CLUB LIMITED	UNITED KINGDOM
EASA.GBR.ATO.0127	BRISTOW HELICOPTERS LIMITED	UNITED KINGDOM
EASA.GBR.ATO.0129	CALEDONIAN ADVANCED PILOT TRAINING	UNITED KINGDOM
EASA.GBR.ATO.0132	CHESHIRE FLYING SERVICES LIMITED	UNITED KINGDOM
EASA.GBR.ATO.0138	CRM AVIATION EUROPE LIMITED	UNITED KINGDOM
EASA.GBR.ATO.0152	FLYING TIME LIMITED	UNITED KINGDOM

- → AeMC\*;
- → AeMC\*;
- → AeMC \*

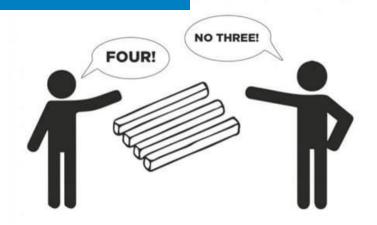


#### **EASA Medical Activities**

Standardization Rulemaking International Cooperation **Certification Support** Representing EU Aviation Medicine Competent Authority 3rd countries Research



# **Standardisation & harmonisation**





#### **Standardisation**

Reg 2018/1139 Art. 85(1): Monitoring of Member States



Monitoring the application by Member States of the Basic Regulation and of the delegated and implementing acts

The EASA shall assist the Commission in:



**Assist** the Member States in **ensuring the uniform application** of the Basic Regulation and of delegated and implementing acts



Sharing best practices



# **Standardisation inspection**

- → Regulation (EU) No 628/2013
- → EASA visits the National Competent Authorities (NAA) to assess
  - Implementation of Part ARA, Part ORA, Part MED and Part ATCO.MED
  - Implementation of authority requirements including,
    - Certification of AMEs, AeMCs, GMPs
    - Oversight over their AMEs, AeMCs, GMPs
    - Medical certification of Aircrew and ATCOs
- → As part of the visit to the NAA, EASA visits undertakings to sample how the NAA is completing its tasks



# Inspection programme; 10 inspections per year

	MON	TUE	WED	THU	FRI
	DD	DD	DD	DD	DD
AM	NAA?	NAA	AeMC/AME	AME	NAA
PM	NAA	AeMC	AME	NAA	•



# Rulemaking



# **Scope of Aviation Medicine**

➤ Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018;



- ➤ Commission Regulation (EU) 1178/2011, as amended all Parts and Annexes as applicable;
- ➤ Commission Regulation (EU) No 2015/340, as amended all Parts and Annexes as applicable



# Rulemaking activities

- → RMT.0287- Regular update of Part-MED
  - → Rulemaking RMT.287 (2)(b) Pilot age limit Opinion published 13 October 2023
- → RMT.0424 regular update of Part-MED
- → RMT.0707 merge of Part MED and Part ATCO.MED
- Medical requirements for RPAS
- High Airspace Operations -?
- → Electronic pilot licence ?



#### RMT.0287 timeline

→ Opinion to be merged with the resulting text of NPA 2017-22 regarding updated to ARA.MED & ORA.AeMC.

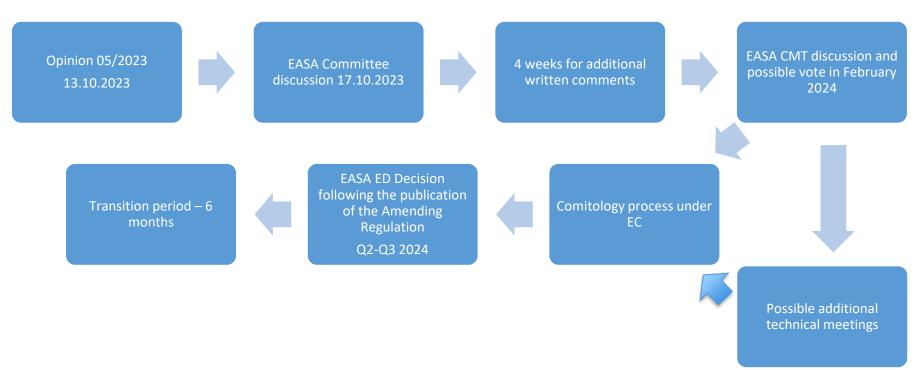
EASA special rulemaking procedure milestones

 Opinion scheduled for Q3 2023, foreseen for discussion in EASA Committee in October 2023, published 13 October 2023.





## **Timeline**





# Research



# **Research - ongoing**

As key part of the European Union's strategy to establish and maintain a high uniform level of safety in civil aviation at European level - EASA.

A priority list of research topics in the fields of safety, security, environment and health has been proposed, which will serve to update the EASA research programme.

- Participation in the research is possible through a tender procedure.
- Financed under European research funds delegated to EASA as the researched actions to be listed in the European Plan for Aviation Safety (HORIZON 2030)



#### **EASA Aviation medicine research activities**

Mental health research activities Evaluation on support program Pilot and ATCO fitness Cardiovascular **Diabetes Mellitus** Health Aircraft Surfaces **Colour Vision** 



# **Mental health - Background information**

Work started from research needs identified by EASA following Germanwings accident

- COVID-19 pandemic highlighted again the importance of mental health
- Lack of standardised customised diagnostic tools.
- The need to identify suitable diagnostic tools for mental health





# Mental health - Project Overview & Status

- Identifying new mental health assessment tools suitable for use in aviation environment
  - Such tools would **support** aero-medical examiners (**AMEs**) to improve the mental health assessment of their applicants (pilots &ATCOs) and potentially avoid another accident such as Germanwings accident.
- → Duration: 24 months
- Timeline:
- → Kick-off Meeting May 2022
- → Final report May 2024
- Presentation workshop 23-24 April 2024
  - → Consortium:
    - → Deepblue (ITALY) deepblue
    - \*Deepblue (HALY)
    - Freelance Aviation Medical Professionals MD





#### Mental health research - MESAFE

→ Duration: 24 months

#### Timeline:

- → Kick-off Meeting May 2022
- → Final report May 2024
- → Presentation workshop Q3 2024

Expected final deliverables Q4 2024





# Mental health - deliverables

4 deliverables already published on EASA Website:

https://www.easa.europa.eu/en/research-projects/mesafemental-health#group-downloads

- → D-1.1 Report on the review of diagnostic measures
- → D-1.2 Report on the review of treatment options
- D-3.1 Report on the analysis of the suitability of screening and confirmation tests
- MENTAL HEALTH ASSESSMENT: A survey to collect the Aeromedical Examiners and Assessors' point of view Booklet of results
- D-2.1 Report on the analysis of the availability of diagnostic tests
- → 5<sup>th</sup> deliverable pending publication





#### **Mental health – MESAFE Communication**

#MESAFE #Aviation #MentalHealth

#### **WE ARE MESAFE**

MEntal health for aviation SAFEtv

Our mission is to help Aeromedical Examiner groups detect signs and symptoms of psycho before they generate mental health issues, ar support.





www.easa.europa.eu/en/research-projects/mesafe-mental-health

#MESAFE #Aviation #MentalHealth

#### MENTAL HEALTH

Mental health is a **state of mental well-being** that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community.

Mental health is an integral and essential component of health and it is not merely the absence of mental disorders or disabilities.





www.easa.europa.eu/en/research-projects/mesafe-mental-health





#MESAFE #Aviation #MentalHealth

#### **MENTAL DISORDERS**

To date, there is no universal agreement on the definition of mental disorder. However, seven indicators of psychological disease have been identified: subjective distress, maladaptiveness, statistical deviance, violation of society standards, social discomfort,

No single indicator is enough to determine a behavior as abnormal. However, the more a person has difficulty in those areas, the more they are likely to have some form of mental disorder.











# **Pilot and ATCO fitness**

## **CaVD-PACE & Diabetes**





#### **ATCO** and Pilot Fitness research

- New development in medicine are expected to evolve and may have an impact on the assessment of fitness of pilots and ATCOs regular updates and extraordinary updates:
- Diabetes
- → Cardiovascular





#### **Diabetes**

- Research studies requested by our stakeholders:
  - → Diabetes mellitus with focus on insulin treated diabetes
- → Consortium:
  - → University of Graz Austria
  - → University of Leuven KULeuven Belgium
  - → University of Surrey UK
- → Kick-off in December 2022
- → Duration: 36 months
- → Expected final deliverables Q4 2025





#### **Diabetes**

- → Conduct a review and critique of the state-of-the-art diagnostic methods and treatment options for diabetes mellitus (recent scientific literature, analytical methods, as well as methods to assess and compare)
- → Identify diagnostic and monitoring methods for diabetes mellitus that are suitable for use in aeromedical fitness assessments
- → Hypobaric chamber tests



# CaVD-PACE - New treatments and diagnostic measures for cardiovascular diseases of pilots and ATCOs

- Research studies requested by our stakeholders:
  - Cardiovascular medical conditions **the diagnostic and treatment guidelines** of the *European Society of Cardiology* have been recently updated which will have an impact on treatments and diagnostic measures available and acceptable for use in aviation.
- → Consortium:
  - $\rightarrow$  DLR
  - → Freelancer Aviation Medicine consultants
  - → UnikliniK
- → Kick-off January 2023
- → Duration: 36 months
- → Expected final deliverables Q4 2025





#### Research – near future

VISION (Colour vision); call for tender published in December 2023

HEALTH – Aircraft Surfaces;
Call for tender published on
October 2023 (opened till 31.jan 2024)





## **VISION**

Colour vision

#### <u>Timeline:</u>

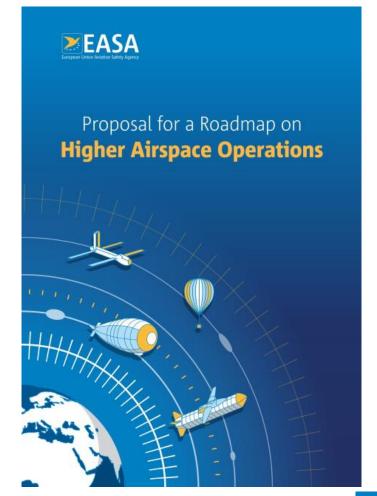
- → Tender December 2023
- → Kick-off Meeting Q1 2024
- → Final report ?
- Expected final deliverables ?



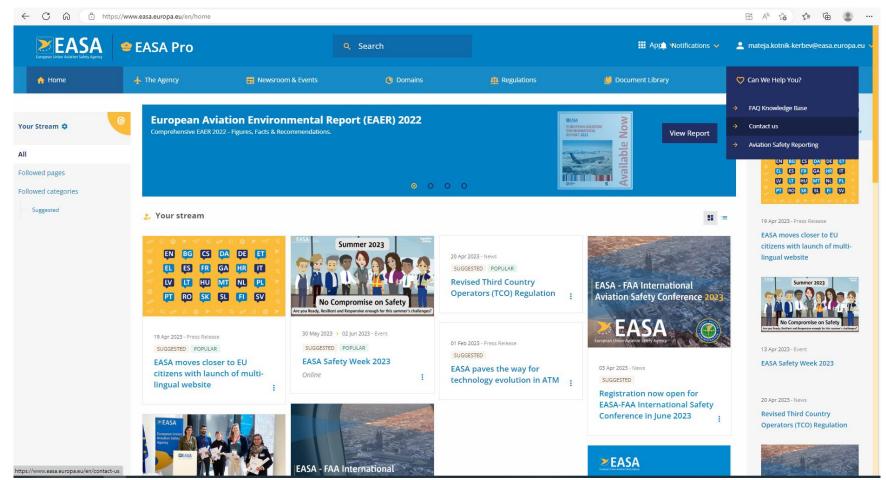


# **Research – future projects**

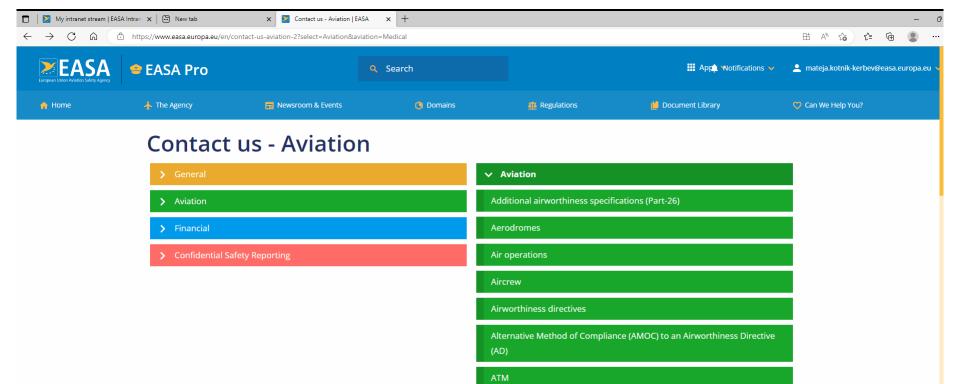
- High airspace operations
- Obstructive sleep apnoea
- Preliminary discussions tender specifications to be defined in 2024
- Call for tenders Q4 2024 / Q1 2025









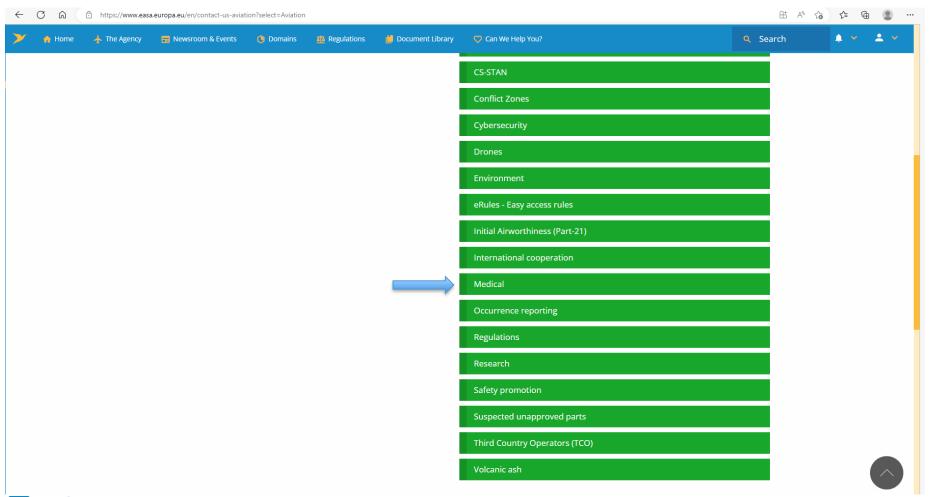


Certification of products and organisations

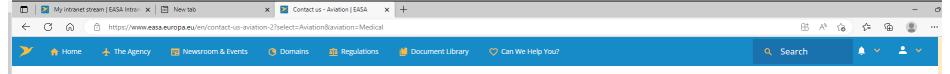
**Conflict zones** 

Cybersecurity

Continuing Airworthiness (Part-66, Part-M, Part-145, Part-147, ...)







#### Contact us:



The European Union Aviation Safety Agency (EASA) is governed by Regulation (EC) 2018/1139, which sets out the tasks and responsibilities of the Agency.

EASA cannot provide legally binding interpretations of EU Regulations. This prerogative is reserved for the European Court of Justice and National Courts of the Member States.

Under the EU Treaties, Member States are responsible for interpreting and implementing EU law in their national legal system. For that reason, any queries concerning the implementation of aviation safety regulations within the Agency's remit should be addressed to the respective Member State National Aviation Authority for further clarification.

National Aviation Authority contact details - For contact details for each National Aviation Authority, please follow this link - http://www.easa.europa.eu/the-agency/member-states

Frequently Asked Questions (FAQ)- You may also be able to find an answer to your query using our FAQ under this link - <a href="http://www.easa.europa.eu/the-agency/faqs/medical">http://www.easa.europa.eu/the-agency/faqs/medical</a>

Applicable EU Regulations - If you require information on the applicable EU Regulations and corresponding AMC/GM concerning aero-medical certification of aeronautical personnel please use the corresponding consolidated version found under this link - <a href="http://www.easa.europa.eu/regulations">http://www.easa.europa.eu/regulations</a>. For Aircrew aero-medical certification please find 'Aircrew' and select 'show regulations' - the medical requirements can be found in annex IV 'Part-MED' to the Aircrew Regulation. For ATCO aero-medical certification please find 'ATCO' and select 'show regulations' - the medical requirements can be found in annex IV 'Part-ATCO.MED' to the ATCO Regulation.





## Thank you for your attention















Your safety is our mission.