



**A CONCEPT NOTE ON THE ROLE OF THE
EAC CENTRE FOR AVIATION MEDICINE IN
AVIATION SAFETY AND THE CAPSCA
PROGRAMME**

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Background

In the period 2008-2010 Partner States of the East African Community (EAC) comprising of Burundi, Kenya, Rwanda, Tanzania and Uganda took part in the Universal Safety Oversight Audit Programme (USOAP) of the International Civil Aviation Organization (ICAO).

The USOAP identified shortcomings in the implementation of ICAO Standards and Recommended Practices (SARPs) within the Region in relation to:

- Designated Medical Examiners (DMEs)
- Use of Medical Assessors



Background continued:

- EAC CASSOA requested technical assistance from ICAO ESAF to guide the determination of the feasibility of the Centre to which ICAO consented. A consultant, Dr.Ewan Hurchinson(Chief of AVMED,UK CAA) sponsored by ICAO-ESAF was engaged to do the study.
- He reviewed the existing standards and practices in the EAC Partner States by conducting facilitated workshops/meetings with relevant stakeholders in the Region to determine or seek their views.



Summary of Findings

Designation of Medical Examiners

- Lack of, appropriate training in Aviation Medicine and, practical experience of the conditions in which the holders of licences and ratings carry out their duties.
- Limited refresher training, ICAO Annex 1, 1.2.4.4.1, 1.2.4.4.2
- Medical Assessors - Lack of Medical Assessors for supervision and control of the Aviation Medical Examiners including evaluation of medical reports submitted by the DMEs.

Lack of medical confidentiality



Summary of findings continued:

- Managing false declaration not dealt with by the Civil Aviation Authorities.
- Resolution of safety concerns – no routine collection and review of statistical data relating to medical incapacitation whilst on duty either as a pilot or Air Traffic Controller.
- No appeal process in place for applicants who have not met medical requirements.
- Managing problematic use of psychoactive substance.



Recommendations

- A Regional Aviation Medicine Centre with staffing that includes a Medical Assessor as part of the EAC CASSOA be established;
- It should be located at a site with a heavy aviation industry and accessibility to Medical Specialists who would provide consultative services when need arises;
- Interim location - CASSOA HQs Entebbe, Uganda, for relocation to the recommended location, Nairobi when ready.
- The Centre should initially focus on those core functions that are required to enable the Region to be compliant with ICAO SARPs



The CAM Mission And Vision

- The CAM Mission is Development, Promoting and Coordinating the Implementation of sustainable Civil Aviation Medicine oversight systems in the East African Community Partner States and the Vision is,
- Attaining a Safe and Secure Regional Civil Aviation Industry through enhanced oversight systems in Civil Aviation Medicine.



CORE FUNCTIONS OF THE CAM

The CAM henceforth started its functionality in February 2014 and was to be in two phases, Phase I while in Entebbe, CASSOA Headquarters and Phase II on relocation to Nairobi, Kenya.

- Objectives

Enable/Assist/Improve EAC Partner States compliance to the implementation of the Aviation Medicine related ICAO SARPs, EAC harmonized regulations and Technical Guidance Materials.

Public Health

: Assist EAC Partner States on the implementation of the International Public Health compliance



Core Functions Continued:

☐ Target Group.

- EAC Partner States' Civil Aviation Authorities
- Aviation Medical Examiners and Assessors
- Airline Flight Crew, Cabin Crew and Air Traffic Controllers
- EAC Partner States' International and Domestic airports
- Other Airport and Airline Stakeholders
- Air Passengers/Aviation Personnel



Core Functions continued:

□ Current Activities

- Develop and implement Regional Partner States mission schedules for evaluation of the status of implementation of aviation medical related Standards and provision of Corrective Action Plans to close the identified gaps.
- Conduct Technical missions to Regional Partner States to assess their readiness for ICAO USOAP Audits.
- Conduct Technical Missions to Partner States to assess and review ICAO USOAP findings and provide guidance on the development of Corrective Action plans for their closure.
- Review / evaluate Aviation Medicine related regulations, policies, and standardized technical guidelines.



Core Functions continued:

- Develop inputs and implement procedures to be followed in obtaining and sharing Regional Human Resources (Aviation Medicine Experts) for medical related activities, surveillance, audits and responding to request of assistance on aviation medicine related matters.
- Evaluation of medical reports submitted by Aviation Medical Examiners.
- Develop medical Protocols meant to assist Aviation Medical Examiners and Assessors during the medical assessment processes.



- ❑ Aviation Medicine training programmes (Basic/Initial & Refresher) in a bid to build capacity in the Region.
- ❑ Monitoring and evaluation of Public Health Emergency preparedness response at all major International Airports in the Region and provision of corrective action plans for the identified gaps.
- ❑ Develop Operational Guidelines for management of Air Passengers and Aviation Personnel in relation to communicable disease Pandemic
- ❑ Create awareness among pilots, cabin crew and ATCs on aspects of Aviation Medicine.



PHASE II - NAIROBI

Following relocation to the newly constructed premises in Nairobi, the Centre is to provide as in phase I regulatory Aviation medicine.

Activities

- ❑ Act as Regional Referral Aviation Medical Examination Centre
 - Assist Regional Designated Medical Examiners in making accredited medical conclusions and conduct medical assessments for deferred and referred cases.



PHASE II – NAIROBI CONTINUED:

CAPSCA Regional Centre

Seek the mandate, and facilitation by the Regional ICAO ESAF and Partner States' Authorities to coordinate multi-sector collaboration and cooperation (civil aviation authorities, Partner States' public health authorities, airports, air traffic services, airlines, immigration, customs, security and handling personnel) and conduct among others the following:



- Training arrangement and partnership:

Prioritizing surveillance capacity building activities at points of entry through training of Partner States' Aviation Medical Assessors and Public Health Experts as CAPSCA Technical Advisors----Onsite training in collaboration with CDC, WHO and ICAO.

- Coordinate and organize periodical CAPSCA meetings in the EAC Region and at large.

- Organize and conduct Technical support visits at the EAC Partner States' major international airports in collaboration with the States' public health Experts to assess the level of of the Public health Emergency Preparedness Response to any public health event, including COVID -19



- Organize training programmes for airport Stakeholders and aviation Personnel at EAC major International and Domestic airports on Public Health Emergency Preparedness Response in relation to any existing Pandemic
- Development and regular review/amendment of Operational Guidelines for the management of Air Passengers and Aviation Personnel in relation to COVID-19 and any other communicable disease. These are aligned to the WHO and ICAO CART Guidelines
- Capacity Building: Provide assistance, in partnership with ICAO/WHO/CDC, to Partner States to develop and establish National and Airport Aviation Pandemic Preparedness Plans.



- Work with Partner States and other relevant stakeholders to encourage:
 - ❑ Standardization of Public Health Risk mitigation measures through Public Health Corridors for example the standardization and validation of testing, recovery and vaccination certificates.
 - ❑ States to promote the harmonized and inclusive approach to facilitate the international travel and entry of fully vaccinated and recovered passengers as vaccination plays an important role in aviation recovery.
 - ❑ Establish key performance indicators to monitor the effectiveness of the risk mitigation measures especially with respect to aviation recovery.



PHASE II CONTINUED:

☐ Regulatory Aviation Medicine

- Continue to support Partner States in developing and amendment of Aviation Medicine related Regulations and Technical Guidance Materials,
- Providing Assistance visits mission to Partner States for oversight and capacity building
- Establishment of a pool of Technical specialists and Aviation Medical Review boards.
- Developing a strong co-ordination mechanism between Partner States.



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☐ Aviation Medicine Services

Centre of Excellence in practice of Aviation Medicine.

- Handling of deferrals and referrals
- E-Consultation
- Surveillance of medical conditions patterns



☐ Aviation Medicine Training

- Basic Aviation Medicine
- Refresher training of AMEs and AMAs
- Training of other Aviation Personnel such as Pilots, Cabin Crew and Air Traffic Controllers.

Form an MOU with other training institutions to facilitate that.



☐ Research, Performance monitoring and Evaluation

- Repository of Aviation Medicine data especially with regarding to training of AMEs, AMAs, prevalence of Aviation medicine conditions in the Region, trend of deferrals and denials of medical certificates and performance of AMEs



☐ Public Health Services

- Support Partner States to establish a strong collaboration between ministries of health and aviation sector;
- Promote and coordinate Regional CAPSCA related activities such as development of guidance materials for international travel during Public Health events of International concerns.
- Assistance visits to Partner States on health-related matters.



Phase II Proposed Staffing

- Chief Medical Officer/Director of CAM (full time)
- Medical Assessor (full time)
- Public Health specialist (One, part time)
- Aviation Medical Examiner (One, part time)
- Nurses (two)
- Laboratory technologist (two)
- Audiologist (One, part time)
- ECG Technologist (One, part time)
- Radiographer (One, part time)
- Optometrist (One, part time)
- Office Management Assistant (one)
- Receptionist (one)



PHASE III- Diversification and expansion of service provision

The activities of Phase III will run concurrently with Phase II and focus more on consolidation and expansion of identified areas highlighted in 2

☐ Activities

- Aviation Medicine research
- Establish a Centre of Excellence in aviation learning and training.



Phase III Continued:

☐ UPRT (Upset Prevention and Recovery Training)

- LOC-I (Loss of Control Inflight) is the leading cause of aviation fatalities in both worldwide commercial airline accidents and general aviation.
- ICAO has published a manual on UPRT (Upset prevention and recovery training), DOC 10011 and has made recommendations on UPRT during CPL & ATPL type rating.
- Inclusion of UPRT as a requirement in both the academic and simulator-based training for CPL & ATL type rating is recommended.
- It is therefore recommended that establishment of a Centre of Excellence in aviation learning and training at the CAM be done in phase III This would be a major source of revenue for sustainability of the CAM.



Phase III Continued:

□ Its Objectives.

To provide learning and training to:

- Commercial airline pilots to maintain control over their planes, a form of training that focuses on avoiding potentially hazardous situations in flight, UPRT (upset prevention and recovery training) services to airline business industry in the Region.
- Cabin crew training
- Training courses for aviation crew
- Pilot selection



Phase III Continued:

☐ Requirements /Mode of delivery

Form a Partnership or an MOU with an ATO

- Pilots training

Utilising full flight simulators

Flight simulation platforms e.g., airbus A320, Dash- 8Q400

Fixed-base flight navigation and procedures trainer (FNPT)

Centralised service for e learning of aviation skills



Phase III Continued:

- Cabin Crew training
 - ✓ Narrow body Cabin Crew trainer with motion and pool
 - ✓ Door trainer
 - ✓ Cabin service trainer
 - ✓ Emergency equipment training rooms
 - ✓ Cabin fire management trainer
 - Training of pilots, Cabin Crew and ATCs in aspects of Aviation Medicine, Human Factors and First Aid
 - Establish a Regional Accident and Incident Investigation Unit



- ❑ Current Status of Trained Aviation Medical Doctors in the Region
 - 2011: 15 (1 Medical Assessor and 14 Medical Examiners)
 - 2021: (5 Medical Assessors and 35 Medical Examiners)



THANK YOU

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