

**51st CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS**

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AGENDA ITEM 3.3A: EMERGING ISSUES IN AVIATION

**RECOGNIZING THE ROLE OF AVIATION IN
THE EBOLA OUTBREAK AND
OTHER PUBLIC HEALTH EMERGENCIES**

(Presented by the International Civil Aviation Organization)

SUMMARY

This Discussion Paper discusses the role of aviation in public health emergencies. It highlights the importance of collaboration between the aviation and public health sectors in preparedness planning and response to public health events. Action by the conference is at paragraph 4.

RECOGNIZING THE ROLE OF AVIATION IN THE EBOLA OUTBREAK AND OTHER PUBLIC HEALTH EMERGENCIES

1. INTRODUCTION

1.1 The importance of the aviation sector in preventing the spread of communicable disease by air is recognized by Article 14 of the Chicago Convention. During and since the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003, more attention has been given to the implications of Article 14 and several health events have highlighted the need for a greater understanding of the issues. The Ebola outbreak of 2014 emphasized the need for improved information collection and sharing, and collaboration between the public health and aviation sectors.

1.2 Although Article 14 recognizes the involvement of aviation in helping to manage public health events “in close consultation with the agencies concerned with international regulations relating to sanitary measures applicable to aircraft”, little attention has traditionally been given to the subject by national regulatory aviation medicine departments. Regulatory aviation medicine tends to be focused on implementation of medical Standards and Recommended Practices (SARPs) for licence applicants.

1.3 Medical officers in civil aviation authority aviation medicine departments are recruited from a variety of sources, but all should have received training in public health medicine as part of their undergraduate degree programme. Together with their knowledge of the aviation sector, they are well placed to liaise with public health specialists to facilitate the development of a multi-sector approach to public health preparedness planning and response in the aviation sector, e.g. implementing the Annex 9 – *Facilitation* Standard that requires States to “establish a national aviation plan in preparation for an outbreak of a communicable disease posing a public health risk or public health emergency of international concern”. However, the expertise that resides in regulatory aviation medicine departments may not be recognized, or may be under-utilized for management of public health events that impact aviation.

1.4 The protection of the health of passengers and crews on international flights was recognized by the Thirty-fifth Session of the ICAO Assembly in 2004 (Resolution A35-12) as an “integral element of safe air travel”. In addition, the State safety management responsibilities outlined in ICAO Annex 19 – *Safety Management* are intended to support the continued evolution of a proactive strategy to improve safety performance. Therefore, as part of its State Safety Programme (SSP), States could use their aviation medicine department personnel to identify hazards and manage the risks inherent in the aviation environment as it applies to public health risks on aircraft and at airports.

1.5 Additionally, the Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA) provides an opportunity for relevant stakeholders to consider how to plan for and manage public health events that impact the aviator sector. CAPSCA has been recognized as a useful programme by two ICAO Assemblies, in 2010 (Resolution A37-13) and in 2013.

2. THE EBOLA OUTBREAK

2.1 While there have been a number of public health events that have impacted the aviation sector since the SARS outbreak in 2003, e.g. Pandemic Influenza A (H1N1) and the Fukushima nuclear power plant accident, none has better demonstrated the need for the aviation and public health sectors to work together to manage such an event than the 2014 Ebola Virus Disease (EVD) outbreak.

2.2 The lead United Nations agency in the Ebola outbreak is the World Health Organization (WHO). However, the WHO does not possess the necessary expertise to develop public health preparedness plans in the aviation sector, nor to fully manage a public health event such as the EVD outbreak without input from the aviation sector. Some examples of collaboration are provided below.

2.3 The WHO Ebola Emergency Committee recommended that exit screening be undertaken at international airports of affected States to prevent symptomatic patients and their asymptomatic contacts from travelling. To do this, space needs to be allocated in the airport terminal building and/or outside it, and a system for notifying the airlines of an individual who has been denied boarding must be implemented. Procedures require discussion with the airport and aircraft operators.

2.4 Should an infected traveller embark an aircraft despite exit screening, e.g. during the asymptomatic incubation period, cabin crew need to know how to identify and manage a case who develops symptoms of a communicable disease in flight. Aspects such as distancing the suspect case from other travellers on a potentially crowded aircraft, use of the lavatories by unwell travellers and disposal of contaminated equipment needs consideration. ICAO and the International Air Transport Association (IATA) have developed generic procedures for such cases.

2.5 Cabin crew require Personal Protective Equipment (PPE) once a suspected case is identified. ICAO, with IATA input, has developed a list of suitable equipment for such PPE. It is important that public health officers are aware of such guidance to avoid the public health sector developing recommendations that are not harmonized.

2.6 Notification of a case of communicable disease on board an aircraft in flight to the destination and departure airports requires a specific procedure that utilizes Air Traffic Services (ATS), as described in the *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444). However, the ATS should not be used to convey detailed medical information.

2.7 The interface between the public health and aviation sectors is critical when an affected aircraft lands with a suspected case of communicable disease on board. The parking position of an affected aircraft does not need to be a remote stand from a public health perspective, yet such a stand is often allocated, sometimes resulting in unnecessary delays to first responders gaining access to the aircraft and in passenger disembarkation. Announcements to passengers should be standardized across different airlines, as should the procedure for removing an ill passenger from the aircraft. The management of cases identified as potentially infected and potential delays to asymptomatic passengers on the same flight needs consideration.

2.8 In order to effectively manage the public health response to a public health event that impacts the aviation sector, a variety of up-to-date data are required. Such data include: airlines that have restricted or ceased operations from or to affected countries (and whether such decisions were based on commercial/operational considerations or by direction of the airline's State authorities); and which NOTAMS have been issued for public health reasons and what restrictions they impose; which airports have implemented exit (departure) and/or entry (arrival) screening and what this involves; which States impose quarantine requirements for arriving travellers from affected States and what this entails; and which air ambulance companies can provide an evacuation service to ill health care workers. At present, an effective information exchange system does not exist for collecting and providing such information.

2.9 Although not a major feature of the Ebola outbreak, communicable diseases may result in a reduced availability of trained staff due to personal illness or the need to care for a sick relative, or for children whose schools are closed. This may result in a potential direct risk to flight safety and therefore requires consideration under a State's SSP.

2.10 **Flight cancellations and restrictions**

2.10.1 The EVD outbreak resulted in a number of airlines cancelling flights to and from affected States in West Africa. Different reasons have been reported for this, including: lack of commercial viability; crew members unwilling to operate; inadequate health care facilities for transiting crew; and risk of importing disease into an unaffected State. The authority behind such decisions may rest with the State or with the airline. According to WHO, the result has been delays in the transport of health care workers and medical supplies to affected areas, with lives being jeopardized as a consequence.

2.10.2 A number of States issued general flight and passenger bans, contrary to WHO recommendations. This affected not only commercial passenger flights, but also air ambulance and humanitarian flights. Some aircraft captains were reported to have refused to carry properly packaged biological samples being sent for specialized laboratory analysis. The economic effects of cancelled flights, for any reason, can have significant deleterious effects on the economy of a State, as well as on the aviation industry and supporting entities.

2.10.3 The WHO looks to ICAO and IATA for advice concerning flight cancellations and delays. At international and regional levels, ICAO can provide guidance and coordination but, at national and operational levels, appropriate public health/aviation networks should be established prior to the commencement of a public health event. Such networks, in most States, have not been fully developed.

3. **CONCLUSIONS**

3.1 Public health events with the potential to impact international civil aviation have been occurring at a rate of approximately one every two to three years over the last fourteen years. It is likely this rate will continue, or possibly increase, as passenger numbers grow and the world becomes more interconnected.

3.2 The role of the aviation medicine department in regulatory authorities of most States has traditionally focused on implementation of the medical SARPs related to the medical fitness of licence holders and applicants. However, all medical officers should have received basic training in public health medicine and have knowledge of the aviation environment. Such professionals could contribute to the development of public health preparedness plans for aerodromes, as required by Annex 14 — *Aerodromes*, and for air navigation services providers, as required by Annex 11 — *Air Traffic Services*. They could assist with the harmonization, by airlines, of the carriage of adequate on-board medical supplies, as required by Annex 6 — *Operation of Aircraft*, and assist public health authorities to develop their own plans, harmonized with aviation-related plans. Some States already utilize their civil aviation authority medical department in such roles, but they are in the minority.

3.3 Despite CAPSCA being recognized as a useful programme, public health event preparedness and management in the aviation sector has not been generally seen as a priority by the health and aviation sectors.

3.4 Efficient management of a public health event that impacts the aviation sector demands that information on which to base management decisions be available. At present, there is no system in place that provides for the collection of such data, nor its sharing between different stakeholders.

3.5 The protection of the health of passengers and crew on board commercial aircraft is an integral element of safe air travel. In addition, flight safety may be detrimentally affected by communicable diseases that reduce the availability of skilled personnel to work. At a national level, both risks may be mitigated by utilizing resources in a licensing authority's aviation medicine department

4. ACTION BY THE CONFERENCE

4.1 The Conference is invited to:

- a) note the importance of aviation in helping to prevent and manage the spread of communicable disease;
- b) recognize the importance of information gathering and sharing in effective public health event management in the aviation sector;
- c) encourage States to utilize expertise in the medical department of their regulatory authority to assist in the development of procedures that facilitate improved public health event management and response in the aviation sector; and
- d) support the continuation of the Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA) programme for providing assistance to States.

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