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BACKGROUND

Since its emergence, the COVID-19 pandemic has significantly impacted global air transport. In the six months since March 2020, when the World Health Organisation declared the COVID-19 outbreak a pandemic, total international seat capacity within ASEAN declined by more than 45%. Aircraft movements also reduced by 44% over the same period.

PURPOSE

These guidelines comprise a set of baseline measures for air operators to implement in the operation of passenger and cargo flights, covering the protection and safety of operational air crew as well as cleaning and disinfection of aircraft. This seeks to mitigate the risk of COVID-19 transmission and enable the recovery of air travel within ASEAN in a safe manner.

These measures were jointly developed by the ASEAN Member States, taking into account the measures contained in the Take-off document (“Guidance for Air Travel Through the COVID-19 Public Health Crisis”) published by the International Civil Aviation Organisation (ICAO) Council Aviation Recovery Task Force (CART), as well as other international best practices.

This document may be reviewed in response to emerging issues or new developments in the COVID-19 situation.
SECTION 1: PROTECTION AND SAFETY OF OPERATIONAL AIR CREW

ICAO Annex 9 identifies crew as essential personnel to the operation of an aircraft. It is therefore important to ensure that safety of all air crew is maintained at the highest level possible while operating in the midst of this crisis.

In order to promote safe and sustainable international air travel, a closely coordinated international approach to the treatment of air crew, consistent with recognized public health standards, is essential to alleviate burdens on critical transportation workers. Currently such treatment includes screening, quarantine measures, and immigration restrictions that apply to other travellers.

This Section covers the in-flight measures that operational air crew should undertake, including addressing the contact of a crew member with a suspected or positive COVID-19 case, reporting for duty, dedicated end to end crew layover best practices, crew members experiencing COVID-19 symptoms during layover, and positioning of crew.

1.1 All Crew Members

Facilitation

- Subject to local public health regulations and policies, crew members who are involved in flights with a stopover and are required to layover due to Flight Time Limitation (FTL) rest requirements, need not be medically quarantined while on layover or after returning unless they were exposed to a known symptomatic passenger or crew member on board or during the stopover.

- Crew members should not be subjected to additional screening or restrictions applicable to other travellers. If required, health screening methods should be as non-invasive as possible.

- If a positive COVID-19 case is found on board, the crew members on duty should be subject to the health protocols of the respective Ministry of Health.

- Crew members should:
  
  (a) Meet all relevant customs, immigration, and health requirements;

  (b) Complete the appropriate forms in manual or digital format (including the Health Declaration Form) on arrival and departure; and
(c) Use the correct customs and immigration channels at the airports.

*Note: Crew members operating passenger aircraft with cargo only, for example, should ensure that the correct notification has been sent to all agencies, to ensure that there is no confusion, or that crew members carried on board such as loadmasters, engineers, and cabin crew are correctly recognised and designated on the crew manifest.*

**Health monitoring**

- Crew members should monitor themselves for fever (feeling feverish or a measured temperature of 37.5°C or higher), cough, shortness of breath, or other symptoms of COVID-19; however, crew members should also be aware of and adhere to the different temperature thresholds in different jurisdictions.

- Crew members should take their temperature at least twice per day during duty periods and at any time they feel unwell.

- Crew members should stay at home or in their hotel room, notify their employers, and not report for work if they develop a fever (feeling feverish or a measured temperature of 37.5°C or higher), shortness of breath, other symptoms of COVID-19, or has had close contact in the last 14 days with any person who has been infected or is suspected to be infected with COVID-19, and should not return to work until cleared to do so by their employers and public health officials.

- Crew members should also not report for work if they:
  
  (a) Are within a mandated quarantine period related to previous travel and/or duty;

  (b) Have tested positive for COVID-19 regardless of symptoms evident unless assessed by the public health authority to have recovered and no longer infectious;

  (c) Know that they have been exposed to a person showing symptoms of COVID-19 in the last 14 days;

  (d) Are experiencing any symptoms of COVID-19; and
**Management of unwell persons during flight**

- Air operators should designate a section of the cabin, that is separated by at least two (2) rows from other seated passengers or crew members, as an emergency isolation area for unwell crew and passengers.

- If a passenger or crew member develops symptoms during flight, they should be isolated in the emergency isolation area and put on a face mask. They should use only the lavatory closest to the emergency isolation area which, where practicable, should be reserved for his or her exclusive use. The unwell person should maintain the recommended physical distance from others when possible to do so and disembark only after all passengers have disembarked unless urgent medical attention is required.

- Additionally, for unwell crew, they should stop working as soon as practicable, notify the pilot-in-charge, and follow up with airline medical and public health officials upon landing.

**Health protection**

- To protect the health of crew and health of others, each crew member should:
  
  (a) Wear a face mask at all times during the flight, and in addition, wear a face shield or safety glasses or safety goggles or equivalent when interacting with passengers in the cabin, except in circumstances where the use of such equipment impedes his or her ability to discharge safety responsibilities. It should be noted that these should not replace the use of surgical masks or other PPE provided in the Universal Precaution Kit (UPK) when interacting with an unwell person on board an aircraft;

  (b) As far as practicable, remain within the assigned designated section of the aircraft during the course of his or her duty, except if needed to respond to an emergency on board;

  (c) Minimise the amount of interaction with other crew members and passengers;

  (d) Maintain the recommended physical distance of at least 1 metre from others where possible when working on the aircraft, for example while seated on the jump seat(s) during take-off or landing, during ground transportation and while in public places;

  (e) Wash their hands regularly or use an alcohol-based hand rub for 20–30 seconds using the appropriate technique if their hands are not visibly dirty.
If their hands are visibly dirty, they should be washed with soap and water for a longer duration using the appropriate technique;

(f) In addition to frequent hand washing/sanitization, be reminded of the need to avoid touching their faces wherever possible, including while wearing gloves;

(g) Avoid contact with people with a cough, fever, or shortness of breath or otherwise suspected of having COVID-19;

(h) Before each flight, ensure that UPKs are on board the aircraft, and follow the existing air carrier policy and procedures regarding the use of PPE in the UPKs, if needed, to provide care to an unwell person on board; and

(i) Follow the guidance and precautions of the state and relevant health authorities related to COVID-19.

- Additionally, air operators should:

  (a) Provide sufficient quantities of cleaning and disinfectant products (e.g. disinfectant wipes) that are effective against COVID-19 for use during flight; and,

  (b) Consider providing face masks to crew members for routine use when on duty, if these do not interfere with required PPE, job tasks and when it is difficult to maintain the recommended physical distance from co-workers or passengers.

*Use of lavatories*

- Where practicable, one or more lavatories should be reserved for crew use, in order to limit the potential for infection from passengers. (It is noted that this may not be practicable for smaller aircraft.)

*Crew rest compartments*

- To minimize any possibility of cross infection, where pillows, cushions, sheets, blankets or duvets are provided, these should not be used by multiple persons unless coverings are laundered or changed;
• Crew members who are issued with their own provisions by airlines, should be responsible for ensuring that they are removed and bagged after use; and

• Where airlines provide bulk loading for crew rest area bedding items, crew members should install their own bedding items before their rest period and remove them hygienically afterwards.

1.2 Flight Crew

• Air operators should limit, to the greatest extent possible, access to the flight deck;

• If necessary, only one member of the cabin crew should be able to enter the cockpit; and

• Flight crew members should only leave the flight deck for short physiological breaks and minimise in person interactions with the cabin crew;

• In the case of flight crew at controls displaying symptoms, the air operator should consider whether removal from the flight deck is an appropriate mitigation within their risk assessment;

• Air operators should ensure that when face masks are worn by flight crew or other crew members etc., that oxygen masks can be rapidly placed on the face, properly secured, sealed, supplying oxygen on demand and flight crew are provided with the correct guidance on how to do so;

• When leaving flight deck, crew members should make sure all items are stowed, personal items removed, and flight deck is ready for cleaning and disinfection;

• Prior to each cockpit crew change, crew members should ensure that the flight-deck has been fully sanitised;

• Only one member of the flight crew or technical crew should be allowed to disembark the aircraft to complete the external inspection, refuelling, etc. In such cases, direct contact with the ground crew should be avoided.

1.3 Cabin Crew

• Cabin crew who are in contact with a passenger suspected to be infected should not visit the flight deck unless operationally necessary;
• While limiting the number and frequency of physical flight crew checks, an alternative method of checking on flight crew welfare such as regular interphone calls should be implemented;

• The use of PPE should not impact the ability to carry out normal, abnormal and emergency safety procedures, such as the donning of oxygen masks, carrying out firefighting procedures etc.; and

• Safety demonstration equipment should not be shared to the extent feasible to reduce the likelihood of virus transmission. If they must be shared, alternate means of demonstration without the equipment should be considered or the equipment should be thoroughly sanitized between uses;

• Crew members should instruct passengers that face masks should be removed before donning emergency oxygen masks, should they be needed.

1.4 Layover

• If crew members are required to layover or transit at an outstation, the air operator should implement the following, in coordination with public health authorities if necessary:

  (a) Commute arrangements (between airport and hotel, if required): The air operator should arrange for the commute between the aircraft and the crew member’s individual hotel rooms, ensuring that hygiene measures are applied and the recommended physical distancing of at least 1 metre adhered to, including within the vehicle, to the extent possible.

  (b) At the crew accommodation:

      ▪ At all times, crew members must comply with relevant public health regulations and policies;

      ▪ One crew member should be assigned to each room, which should be sanitised prior to occupancy; and

      ▪ Crew members, taking account of the above, and insofar as is practicable, should:

        (i) Avoid contact with the public and fellow crew members, and remain in the hotel room except to seek medical attention, or for essential activities such as exercise, while respecting physical distancing requirements;
(ii) Not use the common facilities in the hotel;

(iii) Dine in-room, get take-outs or dine seated alone or dine seated with fellow crew members but with physical distancing in a restaurant within the hotel, only if room service is not available;

(iv) Regularly monitor for symptoms including fever; and

(v) Observe good hand hygiene, respiratory hygiene and physical distancing measures when required to leave the hotel room only for the reasons specified in (a), (c) or emergency situations.

- Crew members experiencing symptoms suggestive of COVID-19 during layover or transit should:
  
  (a) Report it to the aircraft Pilot-in-Command and air operator and seek assistance from a medical doctor for assessment of possible COVID-19;

  (b) Cooperate with the assessment and possible further monitoring for COVID-19 in accordance with the evaluation procedure implemented by the State (e.g. assessment in the hotel room, or an isolation room within the hotel, or alternative location).

- If a crew member has been evaluated and COVID-19 is not suspected in accordance with the above procedures implemented by the State, the air operator may arrange for the crew member to repatriate to base; and

- If a crew member is suspected or confirmed as a COVID-19 case by the State and isolation is not required by the State, such crew member could be medically repatriated by appropriate modes; if there is agreement to repatriate the crew member to home base.
SECTION 2: CLEANING AND DISINFECTION OF AIRCRAFT

This Section on the Cleaning and Disinfection of Aircraft is to maintain safety at both personnel and aircraft level while operating in the midst of this crisis.

In order to ensure that the aircraft is in a fit condition for operation, it is important for the cleaning, disinfection and maintenance of the aircraft to be completed with focus on safety measures, especially if the aircraft is coming out from its long-term parking or storage. This Section recommends measures to minimise the risk of contamination and ensure a safe, secure and sustainable restart and recovery of operations.

2.1 Common Cleaning, Disinfection and Safety Measures for Flight Decks, Passenger Cabin and Cargo Compartments

- Cleaning and disinfection process should be done in accordance with the established air operator's procedures.

- Air operators may implement different cleaning and disinfection frequency based on a risk assessment which takes into account the operational circumstances and the duration of the disinfecting effects of the substance used.

- Cleaning and disinfection agents used should be aviation approved. Refer to the original equipment manufacturer (OEM) instructions to ensure that the proper application, ventilation, and personal protection equipment is used. For more detailed recommendations or additional disinfecting chemicals, please contact the specific airframe manufacturer.

- Clean surfaces of dirt and debris before disinfecting to maximize effectiveness.

- Do not spray cleaning or disinfection solution in the flight deck, passenger cabin and cargo compartment. Apply with pre-moistened wipes or single use wetted cloth.

- Cleaning and disinfection solutions are flammable, so precautions should be taken around potential sources of ignition.

- As there is currently no data on the long-term effects associated with frequent application of the disinfection solution, the operator should periodically inspect the equipment to ensure that there are no long-term effects or damage over time. If damage is observed, contact the OEM for guidance on alternate disinfectants. Specific care should be taken for application on leather and other soft goods.
Cleaning personnel should be adequately trained so they understand and respect the procedures that will ensure effectiveness of the cleaning and disinfecting agents, use the proper personal protective equipment, prevent contamination of other areas and minimise occupational health and safety risks to personnel, including ensuring adequate ventilation in confined areas such as lavatories.

2.2 Specific Disinfection Measures – Flight Decks

- Given the increased likelihood that switch positions may be inadvertently changed during the cleaning or disinfection process, operators and flight crew should reinforce procedures to verify that all flight deck switches and controls are in the correct position prior to operation of the aircraft.

- Some equipment on the flight deck may have additional disinfectant requirements based on usage (e.g. oxygen masks) and procedures should be put in place accordingly.

2.3 Specific Disinfection Measures - Maintenance

- Air operators should be mindful of regular maintenance to both air systems and water systems to ensure they continue to protect the passenger and crew from viruses. Refer to the airframe OEM for specific maintenance actions and intervals.

- It is recommended that air operators include access panels and other maintenance areas in their disinfection procedures to ensure a safe environment for the maintenance personnel.

- Air operators may wish to review their operating procedures to minimise the number of personnel who need to contact high-touch surfaces such as access panels, door handles, switches etc.

- It is recommended that air operators establish maintenance procedures applied after disinfection procedures to check Flight Deck, Passenger Cabin and Cargo Compartments for correct positioning of control handles, circuit breakers and control panels switches and knobs. Access panels and doors closure also should be checked.

- In regard to aircraft filter maintenance, follow normal maintenance procedures as specified by the OEM. Please take note of special protection and handling of filters when changing them. Contact OEM or refer to OEM published documents to check if an additional sanitisation procedure and/or personnel health protection is required to avoid microbiological contamination in the filter replacement area.