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Dated: 10 May 2020

CIVIL AVIATION CIRCULAR (CAC-GEN) 01/2020

Subject: Guideline for Air Operators on Preventing Spread of COVID-19 on Commercial Aircraft

1. Due to the current concern regarding the pandemic of the COVID-19, Civil Aviation Authority of Bangladesh (CAAB) has developed the following guidance providing due considerations to the publications of World Health Organization (WHO) - Guide to Hygiene and Sanitation in Aviation, 2009, Operational considerations for managing COVID19 cases or outbreak in aviation, 2020 and IATA Ground Operation Bulletin 1, March 24, 2020 in order to provide support to its stakeholders in terms of how the cleaning and disinfections in aviation are expected to be performed.

2. The objective of this Directive is to provide necessary guidelines for Air Operators in Bangladesh to ensure an acceptable level of safety is maintained at all times by following infection prevention and control measures through cleaning and disinfection programs. All operators should prepare their own guidance and procedure manual in reference to this directive and get approval of CAAB to ensure an acceptable level of safety is maintained at all times.

Guideline for Attending Passenger While Check-in.

3. All the staffs in check-in counter shall wear standard mask, gloves and disposable caps while attending passengers. They shall frequently wash hands with soap and water if hand is visibly soiled otherwise shall use hand sanitizer. Airlines shall provide adequate alcohol-based hand sanitizer, masks and gloves for the ground staffs for their personal use;

4. Passenger shall be Queued with standard social distancing gap at check in counter;

5. Body temperature of each passenger by Non-contact Infrared thermometer shall be carried out and Check-in shall be denied if temperature observe above 99 °F;

6. Briefing shall be given to all the passengers about personal safety precautions, as necessary. Hand sanitizers, masks and gloves (optional) to each pax shall be provided during Check-in;

7. Required placards/banners/KIOSK may be used to apprise the passengers about new procedures due to the outbreak. A declaration form (with below mentioned 03 questions) shall be given to the passenger to know about the passenger's health condition. All passengers are to sign the form before check-in. If the response (or non-response) to any of the three questions below results in the answer that is in bold, then a denial of Check-in must be applied, in accordance with the *Interim Order*. All the passengers shall sign the declaration form and airlines are to keep the record for at least 14 days. A sample of "**Passenger Health Declaration Form**" is attached with this circular. The three questions are as follow:

- a. Do you have a fever and a cough? If **YES** or passenger refuses to answer, deny Check-in;
 - b. Do you have a fever and breathing difficulty? If **YES** or passenger refuses to answer, deny Check-in;
 - c. Have you been refused boarding in the past 14 days due to a medical reason related to COVID-19? If **YES** or passenger refuses to answer, deny boarding.
8. Close liaisons with concern security and airport health authority shall be made while dealing with suspected passengers and assist them carefully to the pre-selected Quarantine Area demarcated by airport authority;
9. Allocation of seats in the aircraft shall be done keeping in mind the segregation process (min 25% seat vacant) so that social distance is maintained. Always keep at least one (01) seat gap if the passengers are not from same family and last/first one (01) row of the seat vacant for any suspected passengers;
10. During Pre-Boarding and Boarding time, maximum 2 (two) rows (from the back) of passengers shall be called and allowed for board in at a time instead of bulk Boarding;
11. Operators shall ensure that passengers are sitting at least 1 meter apart from one another in the passengers carrying bus. Cross-tape may be used on the seat of the bus to ensure adequate separations between passengers. The bus shall be disinfected each time after carrying passengers to the aircraft;
12. Adequate hand sanitizer and tissue shall be made available for passengers in final boarding counter. Passengers shall be allowed to carry small hand sanitizer bottle (max 100 ml) in their carry-on baggage.

Guidance for In-flights Service.

13. Cabin crew shall avoid close contact with passengers and only provide necessary in-flight service. Operator shall not provide any food and drinks for flight less than 1 hour 30 minutes. However, water and packed juice shall be kept in a limited scale for the diabetic passengers. Operator shall handover pre-packaged dry food and bottled water before or during boarding for short haul (1 hour 30 mins to 3 hours) flights. For medium and long-haul flights, normal meal service should be provided, while wet and cold dishes, and edible ice cubes and cold drinks should be avoided. The cabin crew shall clean and disinfect their hands before and after meals preparation. All types of baby food are exempted for above restrictions;
14. Flight attendants shall be assigned to provide service for certain areas, and flight attendants designated shall provide basic service for the crew members when needed. At least two PPE and two Universal Precaution Kit (UPK) shall be carried all the time in the aircraft for the suspected passenger or for the use of crew members to protect crew members who are assisting potentially infectious cases of suspected COVID-19;
15. Lavatory shall be cleaned at least every hour during flight, and once finished, hands should be timely cleaned and disinfected;
16. For long-haul (>4h) flights, in-flight measurement of body temperature during operation should be taken at least every after 2-3 hours. In case of ill passengers found with symptoms including fever ($\geq 99.5F$), fatigue or cough, the occurrence should be dealt with in compliance with the handling measures of in-flight emergencies of this guideline and the crew should timely communicate with destination airports, and then hand over the ill passengers after landing in cooperation with local health authorities;

Guidance for Crew Members

17. Guidelines During Flight:

- a. Flight crew shall wear surgical masks or masks of a higher standard and caps, and change those after each flight. However, crew must change their masks, gloves and caps immediately after handling any suspected COVID-19 patient;
- b. Cabin crew shall wear N95 or equivalent protection facial masks or medical protection masks, goggles (if any), disposable rubber gloves and change facial masks every 4 hours;
- c. When the mask is on or being removed, the crew must not touch the out layer of the mask with hands to avoid hands contamination. Once dampened by secretions or contaminated by other contaminants, facial masks must be replaced immediately with new ones, and hands should be cleaned with sanitizer both before and after the replacement
- d. Crew members shall reduce entering the cockpit and use separate toilets (if available);
- e. Intercom system shall be used as much as possible for communication among crew members to avoid close contact;
- f. Discarded masks should be placed in a distinct bin, sprayed or sprinkled till fully soaked with chlorine disinfectant before post-flight cleaning, and packed in a tightly knotted plastic bag for centralized disposal;
- g. Cabin crews should avoid two of them dining at the same time. They should not have cold dishes or cold meat/fish and they should choose prepackaged food to the greatest extent possible.
- h. After touching or disposing wastes, hands should be cleaned with soap under running water or hand sanitizer.
- i. Announcement script on suspected communicable disease published by IATA in Dec 2017 to be read for the passenger before arrival;
- j. The flight crew of an aircraft shall, upon identifying a suspected case(s) of communicable disease, or other public health risk, on board the aircraft, promptly notify the ATS unit with which the pilot is communicating, the information listed below:
 - (1) Aircraft identification;
 - (2) Departure aerodrome;
 - (3) Destination aerodrome;
 - (4) Estimated time of arrival;
 - (5) Number of persons on board;
 - (6) Number of suspected case (s) on board; and
 - (7) Nature of the public health risk, if known.

18. **Guidelines During Layover:**

- a. Crew members on layovers are reminded of the health measures currently implemented globally. This may require crew members to remain in their hotel rooms for the duration of their layovers as much as possible, while limiting their activities in public, and to practice social distancing;
- b. Crew members must always also pay close attention to their own health and remain in communication with their respective aviation occupational health and safety staffs. If crew members develop a fever, cough, or difficulty breathing, crew members should, immediately self-isolate and be excluded from being assigned duties, including ground training, until cleared by their local public health authorities;
- c. While on layovers:
 - (1) Shall travel as a crew in private transport provided by the air operator when transiting between the airport and the hotel. They shall minimize contact with ground personnel and time in public areas while moving between the aircraft and transport and do not use public transport, including when traveling between the airport and the hotel;
 - (2) Crew members shall eat in their hotel room with either room or delivery service. If in-room dining options are not available, shall eat at a restaurant located in the hotel. If this option is unavailable, shall eat at a restaurant close to the hotel;
 - (3) Shall avoid all contact with sick people;
 - (4) Shall take shower immediately after entering the room. In case of taking food without shower, shall wash hands often with soap and water for at least 20 seconds or use at least 60% alcohol-based hand sanitizer;
 - (5) Shall avoid touching face without washing hands.

19. **General Guidelines:**

- a. While at residence crews shall be aware of the risk of COVID-19 or similar communicable diseases in her/his community and follow all other general guidelines mentioned for layovers crew.
- b. If any crew member shows symptoms such as fever, fatigue or dry cough, and has a history of epidemiology (such as a history of living, traveling and having contacts with locals in high-risk countries/regions), he/she should be dealt with in accordance with the requirements in the COVID-19/Communicable Diseases Prevention and Control Program. Other crew members who have been on the same flight with him/her within the last 2 days preceding the appearance of the above symptoms should be instantly put under centralized quarantine, and where conditions do not allow, they can be put under house quarantine and medical observation;
- c. Where crew members fly charter flights and other special flights (such as those used for emergency transportation of materials and medical teams) to/from high-risk areas, they generally do not need to be under medical quarantine and observation after returning, provided that they can make good pre-return preparations by strictly observing the following requirements:

- (1) Maximum 02 crew members with PPU, masks and gloves may be allowed to disembark the aircraft (To do external inspections and coordination with groundcrew). Before entering the aircraft they must change the PPU, masks and gloves;
- (2) No ground personnel should be allowed to enter the cockpit;
- (3) The doors should be closed immediately for the return trip upon completion of the required cleaning set by destination airport authority.

Guidance for Routine Cleaning and Preventative Disinfection of Aircraft.

20. One shall wear N95 masks or masks of a higher standard, disposable mop cap, goggles, disposable protective suits, medical rubber gloves and disposable shoe covers;
21. For routine cleaning, wet process cleaning for aircraft shall be applied during a stopover to avoid the onward spread of infections matters, and a thorough cleaning upon the completion of the flight should be carried out.
22. After each flight, the aircraft is to be disinfected with WHO approved insecticide and as per the aircraft manufacturer's guidelines. Interim guidelines updated on 04th Mar 2020 by CDC, Washington on cleaning and disinfection of the aircraft is to be followed. (Disinfectant: 62%-71% ethanol alcohol/0.5% hydrogen peroxide/0.1% sodium hypochlorite may be used);
23. In case of short haul flights, lavatory and gallery should be cleaned properly in priority.
24. Separate rags and mops should be used for aisle, lavatory and gallery, and mark them with different colors to avoid cross-contamination. Different personnel should be tasked with each of the aforementioned areas when conditions allow;
25. During disinfection, surfaces shall be rubbed using rags soaked with disinfectant. Thorough cleaning and disinfection (allowing adequate contact time between the disinfectant and the surface) of the lavatory or lavatories including the disinfection of door handle, locking device, toilet seat, tap, washbasin and adjacent walls must be done;
26. Disinfectant shall be sprayed to cabin floor from the front to the back, then key areas should be disinfected. Once cabin disinfection is finished, disinfectant should be sprayed to cabin floor again from the back to the front.
27. All operators are required to submit a "certificate of disinfection" (as per attached form) to the airport health authority after completion of each flight.

Guidance for Crew Member's Quarantine Management

28. If any crew member shows such symptoms as fever, fatigue and dry cough during the duty hours, he/she shall perform his/her duties immediately as long as flight safety is not compromised. It is recommended to put him/her under quarantine in the cabin quarantine area to avoid close contact with other crew members. After the flight has landed and the passengers and other crew members have deplaned, a special vehicle should be sent, carrying him/her to a designated medical facility for examination.

Guidance for Infection Control Related to Aircraft

29. Aircraft Maintenance

- a. One shall wear a particulate protection mask or medical protection mask, snood cap or disposable mop cap, goggles, disposable protective suits, medical rubber gloves and disposable shoe covers while carrying the maintenance;
- b. Cleaning of aircraft and any possible surface for visible/suspected contamination shall be done immediately;
- c. Frequency of disinfecting the aircraft shall be based on risk assessment;
- d. During ground operation and maintenance, aircraft auxiliary power unit (APU) shall be used for ventilation and avoid using bridge load air source. After arrival, doors of cabin and cargo compartment shall be opened for ventilation before performing maintenance work and extend the natural ventilation time;
- e. Cleaning substance for disinfecting the aircraft and contamination surfaces should be as per the recommendation of the manufacturer/industry standard/WHO;
- f. Operator shall ensure the preservation of the aircraft and de-preservation before resumption of operation;
- g. Adequate training shall be given to all the maintenance personnel for the precaution of COVID-19 or any infectious diseases;
- h. Aircraft cleaning and disinfection products shall be approved for their airworthiness. During terminal disinfection, the passenger cabin shall be wiped while the cargo hold should be sprayed with disinfectant. The liquid concentration should be in line with what's specified in the product application instructions.

30. Cabin Air Filtration/Cargo Compartment Disinfection

- a. Cabin Air filters to be used as per the manufacturers recommendation and should also be in compliance with the filtering of particular size of requirements of WHO. High Efficiency Air Particulate (HEPA) filters are normally used for removing contamination from the recirculating air;
- b. For replacement/maintenance on HEPA filter, maintenance personnel should use PPE. Proper disposal of the removed filter has to be ensured;
- c. Life of the HEPA filter should be as recommended by the manufacturer through MRB/MPD and such interval should closely be monitored;
- d. Concern maintenance personnel shall avoid hitting, dropping, or shaking the HEPA filter. Do not use compressed air to clean the filter;
- e. After the task is completed, the maintenance staff shall disinfect the hands first, then removes the protective equipment in order, and then disinfects the hands again;
- f. Manufacturers recommendation to be followed for the operation of recirculation fan, if there is any COVID-19 or communicable diseases suspected on board;

g. If animal corpses or suspicious contaminants of a contagious nature are found in the cargo hold, post-flight terminal disinfection shall be performed. Disinfection should be performed from the upwind to the downwind direction and from top to bottom.

31. **Maintenance of Oxygen Mask**

a. If a crew member is suspected of having infection, it is recommended to disinfect or replace the equipment used by the crew member;

b. In case of decompression event requiring the use of oxygen mask or portable equipment with suspected passenger, it is recommended to disinfect or replace all the equipment within a six-foot radius of the suspected passenger.

Guideline in case of Suspected Case On-Board

32. Universal precaution kits shall have to be carried on aircraft that are required to operate with at least one cabin crew member. If a traveler develops symptoms of COVID-19, efforts should be made to minimize contact of passengers and cabin crew with the ill person and Crews shall follow the International Air Transport Association (IATA) procedures.

Special Guidance for Helicopter Operators

33. Helicopters, while their operation tends to be more local, shall also follow helicopter disinfection procedure mentioned above for all operators. Moreover, crew must take adequate precautions as most of the helicopter cabins do not have any internal compartments to keep crew totally separate from passenger cabin;

34. Flight crew shall avoid being involved in the handling of the medical passenger in order to maintain some separation. Medical crew on board should be the ones involved with the patient. Operator's crew and medical staff should respect social distancing;

35. Flight crew shall wear personal protective equipment such as gloves and face mask, as compatible with the mission. Further protection measures may be imposed for the Air Ambulance and HEMS flight based on the epidemiological risk assessment of the medical crew;

36. The interior of aircraft shall be cleaned prior to disinfection in accordance with the WHO/IATA and manufacturer's guideline. The disinfection should be performed thoroughly after each flight.

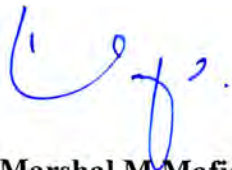
Focus on Mental Health Specially for Front-line Personnel of Air Operators

37. It is normal to have certain negative emotions during the epidemic, and these unusual emotions can in turn serve as a reminder to protect ourselves in a more timely and effective manner. Even if Front-line Staffs and aircrew may have some emotional experiences, they don't familiar with, they needn't to be stressful. It is normal to have these psychological changes. Proper motivation can only guide them to work effectively bypassing all the negative emotions. Where such negative emotions cannot be relieved through self-regulation or motivation, resulting in extreme fear and anxiety, even affecting our sleep and diet, it's recommended to seek professional help.

Effectiveness of the Circular

38. This Circular is shall be effective as soon as it may be promulgated by this authority and shall be applicable on scheduled passenger flights.

39. Notwithstanding any other circular, directives, order or any text of any other CAAB documents (promulgated on subject matter issue) contrary with this circular, the contents of this circular shall prevail. However, the instructions/guidelines promulgated (on the subject matter) by any other documents of CAAB shall be retained in a nature that the status of the other documents shall not be treated as repealed.



Air Vice Marshal M Mafidur Rahman, BSP, BUP, ndu, afwc, psc
Chairman
Civil Aviation Authority of Bangladesh

Attachment-1 of (CAD-GEN) 01/2020

Civil Aviation Authority of Bangladesh
Passenger Health Declaration Form

All passengers MUST complete this form before Check-in.

Please note that appropriate legal actions will be imposed for any false declaration made by any individual

Name	Age	Sex	Date of Birth
Present Address	Airlines	Nationality	National ID No
Mobile	Flight No	Body Temp	email

Screening Questions:

1. Do you have a fever and a cough? YES NO
2. Do you have a fever and breathing difficulty? YES NO
3. Have you been refused boarding in the past 14 days due to a medical reason related to COVID-19? YES NO

Date.....

Signature.....

Attachment-2 of (CAD-GEN) 01/2020

Sample of Certificate of Disinfection

Civil Aviation Authority of Bangladesh

CERTIFICATE OF DISINFECTION
(COVID-19)

This is to certify that (name of airlines)
Aircraft Registration No.....
Flight No Route
Date TimeAM/PM was disinfected with
CAAB/WHO/Manufacturer's recommended disinfectant in the passenger cabin, cockpit,
galley, lavatories, all the interior surfaces of the aircraft including the cargo holds.

Date.....

Signature.....

P. No.....

Ramp in Charge