International Civil Aviation Organization | Organisation de l'aviation civile internationale | Organización de Aviación Civil Internacional | Международная организация гражданской авиации | منظمة الطيران المدني الدولي | 国际民用航空组织

Ref. T 3/10.1, T 3/4.14, T 3/15.1 - 079/20 (ATM) 19 March 2020

Subject: COVID-19 Information Sharing

Action required: To note and take action as appropriate

Sir/Madam,

I refer to State Letter Ref. T 3/10.1, T 3/4.14, T 3/ 15.1 - AP071 /20 (ATM) dated 13 March 2020, regarding the COVID-19 pandemic. The Regional Office has received information on COVID-19 from States and International Organizations, which we feel is necessary to share.

In this regard, please note the attached information from the Civil Aviation Administration of China (CAAC), Public Health Agency Canada, the European Aviation Safety Agency (EASA), and the International Federation of Air Traffic Controllers (IFATCA). This information will also be posted on the APAC website at https://www.icao.int/APAC/Pages/COVID-19-BCP.aspx.

The Regional Office would like to request information on COVID-19 responses, contingency guidelines and best practices from other administrations, which can be shared on the same website.

Accordingly, States are requested to take urgent note of the COVID-19 information provided and take action as appropriate, including the forwarding of your own administration's guidance on COVID-19 to the Regional Office.

Yours sincerely,

Arun Mishra
Regional Director

Enclosures:

A- CAAC Information
B - Public Health Agency Canada Information
C- EASA Information
D - IFATCA Information

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CAAC

Preventing Spread of Coronavirus Disease 2019 (COVID-19)

Guideline for Airlines

Third Edition

In order to prevent and control the spread of COVID-19 via aircraft, and act in accordance with the principle of "targeted and detailed prevention and control measures", the multi-level, categorized and differentiated management of outbreak containment for air transport is implemented. Meanwhile, in order to further refine personal prevention and protection requirements for crew members, maintenance personnel and cleaning staff, improve requirements on environment hygiene, disinfection and maintenance for aircraft, and introduce prevention and control measures for special transport missions (chartered flights etc.) to/from high-risk infection countries (regions) and handling procedures for transfer passengers in Beijing from high-risk infection countries (regions), the *Preventing Spread of Coronavirus Disease 2019 (COVID-19) Guideline for Airlines – 3rd Edition* is developed on the basis of amendment to the second edition.

1. Standards for Grade Level of Flight Infection Risks and Principles of Disease Prevention and Control

Transport flights should be categorized into the three levels, namely high-risk flights, medium-risk flights and low-risk flights, and differentiated prevention and control measures should be applied after a comprehensive evaluation of the outbreak at the place of origins of the flights (both international and domestic), whether the aircraft is equipped with high efficiency particulate air (HEPA) filters and other indicators such as load factors, flight time and mission of the flights. Risk levels should be subject to dynamic adjustment in line with the development of the outbreak. Standards for the grade level of risks can be found in Attachment 1.

2. Temperature Screening

According to the risk levels of different flights, passengers' body temperature should be measured at different phases of flights.

2.1 Low Risk Flights

Non-contact infrared thermometer equipment (calibrated) should be used to measure the body temperature of passengers and the symptoms should be observed as required. One should timely report and respond in case of ill passengers found with symptoms including fever (≥37.3℃), fatigue or dry cough, etc., then cooperate with local health authorities in the handover of the ill passengers.

2.2 Medium and High Risk Flights

The measurement of passengers' body temperature should be carried out before boarding and in-flight based on flight segments and flight distance.

2.2.1 Pre-enplaning

Non-contact infrared thermometer equipment (calibrated) should be used to measure the body

temperature of passengers and the symptoms should be observed before boarding, and timely report and response should be made in case of suspected passengers found with symptoms including fever (⩾37.3℃), fatigue or dry cough, then support should be given to local health authorities in handover of the suspected passengers.

2.2.2 In-flight

For high-risk long-haul (>4h) flights, in-flight measurement of body temperature during operation should be taken. In case of ill passengers found with symptoms including fever (⩾37.3℃), 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.

3. Infection Control Measures for Crew Members

3.1 Personal Protective Equipment (PPE)

Given the risk level of flights, different prevention and protection measures should be taken:

3.1.1 Low-risk flights: wearing protection of disposable medical masks (up to YY/T0969-2013 or equivalent standards) or facial masks of a higher standard.

3.1.2 Medium-risk flights: wearing protection of surgical masks (up to YY0469-2011 or equivalent standard) or masks of a higher standard.

3.1.3 High-risk flights: flight crew should wear surgical masks or masks of a higher standard and goggles, and change facial masks every 4 hours in general (or anytime considered necessary, similarly hereinafter). Cabin crew should wear N95 particular matter protection facial masks (up to GB2626-2006 or equivalent standard) or medical protection masks (up to GB19083-2010 or equivalent standard), goggles, and disposable rubber gloves, and change facial masks every 4 hours.

Crew members should reduce entering the cockpit and using separate toilets. Intercom system is recommended for communication among crew members to avoid close contact.

3.1.4 Discarded masks should be placed in a distinct bin, sprayed or sprinkled till fully soaked with chlorine disinfectant (500mg/L-1000mg/L) before post-flight cleaning, and packed in a tightly knotted plastic bag for centralized disposal.

3.2 Considerations

The mask should be close to the face, covering the nose and mouth completely, leaving no space. During in-flight service and when removing the mask, the crew should not touch the outside of the mask with their hands to avoid contaminating their hands. The facial masks should be changed with new ones as soon as they are damp or contaminated and hands should be cleaned with sanitizer both before and after the replacement.

The crew can use alcohol-based disinfection wipes to clean and disinfect their hands. When the crew is not sure whether their hands are clean, avoid touching the nose, mouth and eyes with their hands. When sneezing or coughing, one should try to lower the head or turn away from passengers and crew members nearby, and cover the mouth and nose with tissue or flexed elbow. After touching or disposing wastes, hands should be cleaned with soap or hand sanitizer under running water followed by hand disinfection.

4. Advice for In-flight Service

4.1 Low and Medium Risk Flights

Food-preparing procedures should be simplified, pre-packaged food should be provided, and cold meal and ice should be canceled to reduce exposure risks and avoid cross-infection. Lavatory should be cleaned every 2 hours (or anytime considered necessary, similarly hereinafter) during flight, and once finished, hands should be timely cleaned and disinfected.

4.2 High Risk Flights

Cabin crew should avoid close contact with passengers and only provide necessary in-flight service. It is recommended to hand over pre-packaged food and bottled water before or during boarding. Unless it is required specially, catering service should not be provided onboard.

Flight attendants should be assigned to provide service for certain areas, and flight attendants designated should provide basic service for the crew members when needed. Efforts should be made to arrange passengers to sit in separation. Lavatory should be cleaned at least every hour during flight, and once finished, hands should be timely cleaned and disinfected.

The last three rows of seats should be reserved as quarantine areas when handling possible in-flight emergencies.

5. Routine Cleaning and Preventative Disinfection of Aircraft

5.1 PPE for Cleaning Crew

5.1.1 Low and medium risk flights

One should wear surgical masks or masks of a higher standard, uniform, disposable snood cap, disposable rubber gloves, work shoes (as necessary), waterproof apron and protections against chemicals such as disinfectants.

5.1.2 High risk flights

One should wear N95 particular matter protection masks or masks of a higher standard, disposable mop cap, goggles, disposable protective suits, medical rubber gloves and disposable shoe covers.

5.2 Routine Cleaning

Wet process cleaning for aircraft should 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. For detailed cleaning methods, please refer to Attachment 2. If conditions are limited, lavatory and gallery should be cleaned in priority.

5.3 Preventative Disinfection

Preventative disinfection should be carried out after the aircraft is cleaned.

5.3.1 Frequency

Preventative disinfection should be done on a regular basis, at least once a week, for low risk flights; and every time after flight for medium and high risk flights. An assessment on the effect of post-flight disinfection may be carried out for high risk flights if conditions allow.

5.3.2 Rules of operation

- 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.

- During disinfection, surfaces should be rubbed using rags soaked with disinfectant, after a period of time for reaction, the regular cleaning process should be finished, to avoid erosive effect on cabin component due to long time exposure to the disinfectant.
- Disinfectant should 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.
- Disinfection of key areas should proceed in the following order:

  Aisle: Ceiling, overhead bins, reading lights, air outlets, sidewall panels, windows, seats (tray tables, armrests, passenger control units, decorative panels), cabinets/lockers, bulkheads, magazine racks, cabin attendant seats.

  Lavatory: The disinfection in lavatory should be progressed from contaminated to clean areas, as follow: toilet bowls, waste bins, basins, lavatory sidewall, ceiling, door assembly (door surfaces, doorknobs, ashtrays, if installed, and latches)

  Gallery: Ceiling, ovens, water boilers, coffee makers, galley facilities, lockers/drawers, waste bins.

5.3.3 Disinfectants

Aircraft cleaning and disinfectant products that have been approved for airworthiness should be used (refer to http://www.fccc.org.cn/webs/xhg/list.aspx?classid=0202 for products list, similarly hereinafter) to avoid corrosive aircraft components. Given the characteristics of current epidemic and knowledge, the following is recommended for wiping disinfection, their concentration should refer to products use instruction:

It is recommended to use compound quaternary ammonium salt, double-chain quaternary ammonium salt, hydrogen peroxide and chlorine-containing disinfectant. For hydrogen peroxide, concentration should be no higher than 3% and reaction time be 20 minutes; effective concentration of chlorine should be within the range of 250mg/L-500mg/L, and reaction time be 10 minutes.

6. Aircraft Maintenance

6.1 PPE of Maintenance Crew

The following prevention and protection measures should apply when replacing a high efficiency particulate air (HEPA) filter:

6.1.1 One should wear a particulate matter protection mask or medical protection mask, snood cap or disposable mop cap, goggles, disposable protective suits, medical rubber gloves and disposable shoe covers.

6.1.2 The mask should be close to the face. Do not touch and adjust the mask, goggles and protective cap during operation.

6.1.3 Avoid hitting, dropping, or shaking the HEPA filter. Do not use compressed air to clean the filter. Used HEPA should be placed in a special plastic bag, disinfected with chlorine disinfectant and sealed. 6.1.4 After the task is completed, the maintenance staff disinfects the hands first, then removes the protective equipment in order, and then disinfects the hands again.

6.1.5 Discarded disposable protections should be placed in dedicated plastic bags and sealed

for centralized disposal.

6.2 Routine Maintenance

6.2.1 During ground operation and maintenance, aircraft auxiliary power unit (APU) should be used for ventilation, and avoid using bridge load air source. After arrival, doors of cabin and cargo compartment should be opened for ventilation before performing maintenance work and extend the natural ventilation time.

6.2.2 HEPA filters should be replaced in accordance with standards specified in the manufacturer's manual, and the replacing process should be in strict compliance with the prevention and protection requirements of the Aircraft Maintenance Manual, and refer to the personal prevention and protection program for aircraft maintenance personnel.

7. Handling of In-flight Medical Emergencies

7.1 Infection Control Measuresfor Crew Members

Upon contacting ill passengers (having symptoms such as fever, fatigue or dry cough), or treating body fluids (such as respiratory secretions, vomit, blood, diarrhea) or contaminated objects and surfaces, cabin attendants should wear personal protective equipment (PPE) found in the Universal Precaution Kit (UPK).

7.1.1 Gloves: Cabin attendants should wear double-layered disposable rubber or butyronitrile gloves. If there are more than 2 ill passengers on board, hands should be disinfected before contacting other passengers.

7.1.2 Masks: Cabin attendants should wear medical protection masks. Touching or adjusting masks is prohibited during emergency handling.

7.1.3 Goggles: Reusable goggles should be promptly sterilized and dried every time after use. Goggles with a anti-fogging film should avoid being wiped with disinfectant. Instead, it is recommended to be washed with water then exposed to close-range direct ultraviolet lighting for over 30 minutes

7.1.4 Protective clothing: When contacting ill passengers, suspected or confirmed patients, cabin attendants should wear goggles and disposable protective clothing (replace by the protective apron in the UPK as an interim emergency measure).

7.2 On-board Emergency Quarantine Measures

The ill traveler (passenger or crewmember) should be quarantined on-board by the following methods:

7.2.1 The last 3 seat rows of the cabin should be designated for relative emergency quarantine. If possible, the ill traveler should be seated in the right window seat, by which the breath exhaled could be exited the cabin directly to the largest extent.

7.2.2 The right rear lavatory should be specifically designated for quarantine purpose. It is recommended to assign specific crew members to provide necessary in-flight service for quarantine areas, and the crew members should minimize close contacts (within 2 meters) with other crew members and unnecessary contacts.

7.3 Aircraft Concurrent Disinfection

The cabin contaminated with body fluids/substances (such as respiratory secretions, vomit,

blood, diarrhea,) should be disinfected timely according to the procedures in *Emergency Medical Equipment Installation and Training for Large Transport Aircraft* (AC-121-102R1 issued by CAAC).

7.3.1 Wearing personal protections(PPE);

7.3.2 Preparing disinfectant: One should take one surface disinfection tablet and put it into 250-500ml clean water to make a 1:500-1000 disinfectant;

7.3.3 Covering the respiratory secretions, blood, vomit, diarrhea and other contaminants evenly with absorbent disinfectant for 3~5 min to enable them solidified;

7.3.4 Shoveling the coagulated contaminants with portable pickup shovels into biohazard wastes bags;

7.3.5 Sterilizing contaminated area with pre-prepared disinfectant, making sure disinfectant stays at the contaminated surface for 3-5 minutes, then washing the area with clean water for three times before drying the area with towels. Put those towels and other used disinfection materials into biohazard wastes bags;

7.3.6 Disinfecting hands before removing protections by the following order: taking off protective suits (aprons), gloves, applying skin disinfection wipe for hand disinfection; then taking off goggles, facial masks, and at last applying skin disinfection wipe to clean hands and other parts of the body that may have been exposed to contaminants.

7.3.7 Placing all used protections and contaminated items inside a biohazard wastes bag; closing the bag, filling a label with “Biohazard Waste”, then tagging it on the seal.

7.3.8 Keeping the tied bio hazard waste bag in a proper place temporarily to prevent it from missing, being damaged or contaminating meals on board.

7.3.9 Informing ground departments at the destination to prepare for takeover.

7.4 Aircraft Terminal Disinfection

After carriage of ill passengers, terminal disinfection should be conducted.

7.4.1 After all people get off the aircraft, close cabin doors, adjust the air conditioning to high-volume to complete all-round air exchange.

7.4.2 Once the air exchange is finished, first the sitting area of ill passengers and lavatory should be disinfected, then clean other areas in accordance with the post-flight cleaning requirements.

7.4.3 After cleaning, one should proceed with terminal disinfection by following the general principle of thorough disinfection from out ring-to-center, top-down and encompassing-approach.

7.5 Aircraft Cargo Hold Disinfection

If animal corpses or suspicious contaminants of a contagious nature are found in the cargo hold, post-flight terminal disinfection should be performed . The disinfection procedures are as follows:

7.5.1 When animal corpses or suspicious contaminants of a contagious nature are found in the cargo hold, the contaminated area in which the animal corpses or the contaminants were should be disinfected and cleaned as the first step, followed by a thorough disinfection of the remaining areas of cargo hold.

7.5.2 The method of spray disinfection and enclosed disinfection should be used. Disinfection should be performed from the upwind to the downwind direction and from top to bottom.

Before disinfecting the inside area of the cargo hold, the personnel in charge of disinfection should spray around the door, close the door, enter into the cargo hold, and spray on the floor in front of the cleaner while moving forward till the whole floor is sprayed before disinfecting other areas of the cargo hold. The personnel should disinfect the ceiling of the cargo hold by spraying disinfectant from left to right and vice versa, and then spray the cargo hold wall from top to bottom. While disinfecting the ceiling and the wall, the amount of disinfectant sprayed should not exceed the amount of the liquid that can be absorbed (the maximum amount of disinfectant the surface can absorb). Upon completion, the cargo hold floor should be disinfected again by spraying while moving backward. After returning to the ground along the ladder, the ladder should be sprayed.

7.6 Disinfectant

Aircraft cleaning and disinfection products should be approved for their airworthiness. During terminal disinfection, the passenger cabin should 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.

It is recommended to use hydrogen peroxide or chlorine-containing disinfectant. The concentration of hydrogen peroxide should be the same as that used in preventive disinfection, and the effective concentration of chlorine should be 1000mg/L, for 30 minutes. The air conditioner should be turned off during the disinfection operation, and the passenger cabin or cargo hold should be fully ventilated after disinfection.

8 Quarantine Management for Crew Members

According to the *COVID-19 Prevention and Control Program* of the National Health Commission (the fifth edition, or the latest edition if updated), the quarantine program of crew members should be based on the following guidelines.

8.1 Crew Members Quarantine Management

8.1.1 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 Prevention and Control Program*. Other crew members who have been on the same flight with him/her within the 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.

8.1.2 If any crew member shows symptoms such as fever, fatigue or dry cough during the duty, he/she should cease performing his/her duties immediately. It is recommended to put him/her under quarantine in the last 3 rows of seats to avoid close contact with other crew members. If he/she has a history of epidemiology, 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. Other crew members should be quarantined as per 8.1.1.

8.1.3 Where any passenger onboard shows symptoms such as fever, fatigue or dry cough, and/or has a history of epidemiology, he/she should be transferred in a special vehicle after the flight has landed and other passengers and crew members have deplaned. The flight attendants designated to provide onboard services for the symptomatic passenger and other attendants in the same cabin section should be picked up by a special vehicle to a location for centralized quarantine, and where conditions do not allow, they can be under house

quarantine and medical observation. Other crew members do not need to be quarantined for the time being, but close attention should be paid to their health conditions.

8.1.4 Where an airline has been informed by the local disease control or quarantine department that a flight of the airlines carried confirmed, suspected or asymptomatic patients, it should notify the crew members flying the flight segment concerned for centralized quarantine, where conditions do not allow, they can be under house quarantine and medical observation.

8.1.5 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 in China, 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.

- No crew members should be allowed to disembark the aircraft (ground handlers should be requested to do external inspections, refueling, etc.);
- No ground personnel should be allowed to embark the aircraft;
- The doors should be closed immediately for the return trip upon completion of the transport of assisting medical personnel and materials, without cleaning, water refilling or waste disposal at the destination airport;
- Aircraft maintenance. If there is no aircraft malfunction after landing, the crew members or in-flight maintenance personnel may issue a release from within the aircraft without the need for making a short stop for maintenance; an external inspection can be completed by qualified local personnel from outside the aircraft, and under condition other than the aforementioned, operators should carry out remote training and provide remote guidance to local personnel. If there are malfunctions in the aircraft after landing and a release cannot be issued based on the Minimum Equipment List (MEL), the malfunctions must be addressed before the flight operation can continue; where a release can be issued based on the Minimum Equipment List (MEL) but a maintenance (item M) procedure has to be performed, crew members should conduct a joint evaluation with the maintenance department, and under the premises of ensuring safety, remote guidance, simplified maintenance and equivalent measures can be taken to allow the aircraft to fly back to the base; where a release can be issued based on the Minimum Equipment List (MEL) but a crew operation (item O) procedure has to be performed, the crew can, if the conditions allow, continue the flight after completing the item O procedure；
- Terminal disinfection of the aircraft should be performed after its return to the home base;
- Before the aircraft lands, the flight dispatcher should inform the crew members once again to make preparation for the return trip by following the above five bullet points.

8.1.6 For those crew members who carried out special transportation missions (charter flights) to/from countries (regions) with high incidence of COVID-19, they should be under medical observation as per what's stipulated in Article 9 of this guideline.

8.2 Quarantine Period

The medical observation period refers to 14 days after the last contact of the quarantined crew members with confirmed, asymptomatic, suspected or suspicious passengers or other crew members. During this period, if the suspected or suspicious patients have been cleared by the disease control department, the quarantine and medical observation of the above-mentioned crew member can be removed.

8.3 Quarantine Measures

8.3.1 Crew members under medical observation should report their body temperatures and health conditions to the relevant department of the airlines every morning and evening.

8.3.2 Crew members under centralized or house quarantine should stay in a relatively separate space which should be regularly cleaned and disinfected, and minimize their contact with other people living together.

8.3.3 Crew members under observation must not go out during the observation period. If they have to go out, they shall report to the relevant department of the airlines, wear a surgical mask and avoid crowded places.

8.3.4 The airlines concerned should keep a record of the health conditions of the crew members under medical observation, as well as the number of times they went out.

8.3.5 Once a crew member under observation shows any symptoms during medical observation (such as fever, chills, dry cough, cough, expectoration, nasal congestion, runny nose, sore throat, headache, fatigue, muscle soreness, breathing difficulties, dyspnea, chest tightness, conjunctival hyperemia, nausea, vomiting, diarrhea, abdominal pain etc.), the airlines should report to the local public health department immediately and send the crew member to the designated medical care facility for diagnosis and treatment.

8.3.6 After the medical observation period, the crew member under observation should be released from medical observation if showing no signs of symptoms.

9. Infection Control Measures for Special Transport Missions (Charter Flights) to/from Countries (Regions) with High Incidence of Epidemic Infection

9.1 Assessment of Passengers' Fitness to Fly

Passengers should be assessed for their fitness to fly before enplaning, mainly to assess whether they are physically suitable for this specific flight. Health assessment should be done by the health department.

Before carrying passengers, relevant department of the airlines should check the health conditions of the passengers by screening. Confirmed or suspected cases or those who can pose potential health risks shall not be transported on the same plane carrying healthy passengers, and in general, close contacts shall not be transported on the same plane carrying healthy passengers either.

Passengers are required to wear a surgical mask or facial mask with better filtering capabilities throughout the journey, and in case of N95 masks, the ones without breathing valves should be used.

9.2 Temperature Screening

9.2.1 Pre-boarding

Non-contact infrared thermometer equipment (calibrated) should be used to examine the body temperatures of the pre-boarding passengers taking a charter flight and observe any potential symptoms. If any suspicious passenger with symptoms such as fever (≥ 37.3 ℃), fatigue or dry cough is found, he/she should be verified immediately using a mercury thermometer. If confirmed as a passenger with fever, he/she shall be under accompanying medical staff's care and shall not be transported by air for the time being.

9.2.2 In-flight

For long-haul flight exceeding 4 hours, the cabin crew and healthcare workers should examine the body temperatures for passengers during the flight. If any suspicious passenger with symptoms such as fever (≥ 37.3 ℃), fatigue or dry cough is found, the crew should notify the healthcare workers. If necessary, the crew should take some basic measures based on the guidance for the handling of in-flight emergencies, issue a timely notification to the destination airport, and provide cooperation in the transfer of passengers after landing.

9.3 Cabin Area Division

In order to avoid cross-infection, the cabin area can be divided into clean area, buffer zone, passenger sitting area, area for close contacts (if any) and quarantine area. The division should be made based on the following principles (and can be adjusted taking into account different aircraft types):

9.3.1 Clean area: it is recommended that the front half of the cabin for both the first and business class be designated as a clean area for the exclusive use by crew members. No one wearing protective clothing shall be allowed to enter the clean area. The boarding gate connecting the clean area should be reserved for the exclusive use by crew members.

9.3.2 Buffer zone: it is recommended that the rear half of the cabin for both the first class and business class be designated as a buffer zone available for use by crew members to wear and take off protective clothing.

9.3.3 Passenger sitting area: it is the sitting area for healthy passengers. Passengers should be seated with at least one empty seat between each other.

9.3.4 Area for close contacts (if any): close contacts, if required to be transported, should be seated with at least one empty seat between each other, and should be at least two rows of seats away from the passenger sitting area.

9.3.5 Quarantine area for ill traveler: the last three rows of seats should be designated as the emergency quarantine area (observation area).

9.3.6 Each area should be clearly labeled, and it is recommended that a disposable curtain be used for the physical separation of each area.

9.3.7 Lavatories: the lavatory in the first-class cabin is to be used exclusively by crew members and needs to be thoroughly disinfected after each use. The lavatory on the rear right side of the cabin is for the exclusive use by the close contacts or the quarantined cases, and the surface area should be disinfected every hour during the flight, with the hands cleaned and disinfected right after the completion of disinfection.

9.3.8 Cabin crew members should manage each cabin area separately, and prohibit passengers from moving across different areas. Passengers sitting in different cabin areas should enplane and deplane in separate groups.

9.4 Infection Control Measures for Crew Members

9.4.1 PPE

- Personal Protection equipment for cabin crew members: medical protective masks, double-layer disposable medical rubber gloves, goggles, disposable medical caps, disposable protective clothing, and double-layer disposable shoe covers. It's recommended that cabin crew wear disposable diapers and avoid using lavatory unless in special circumstances to reduce the risk of infection.
- Personal Protection equipment for flight crew members: surgical masks or facial masks with better filtering capabilities, and goggles. It is recommended to change the facial

masks every 4 hours. Disposable protective clothing and/or disposable shoe covers can also be worn if so required by a specific task.

9.4.2 PPE wearing/taking-off procedure

Wear: disinfect hands - wear hat - wear facial mask - wear the first layer of shoe cover - wear the first layer of gloves - wear protective clothing - wear protective glasses - wear the second layer of shoes cover - wear the second layer of gloves;

Take off: disinfect hands - take off protective goggles - take off the second layer of shoes cover - take off protective clothing (the second layer of gloves) - disinfect hands - take off facial mask - take off hat - take off the first layer of shoes cover - take off the first layer of gloves - disinfect hands.

9.4.3 Dinning considerations

Cabin crew members should be divided into different groups while having simple meals in different hours of the day. To reduce the risk of exposure, others should refrain from walking around.

9.5 In-flight Service Considerations

9.5.1 Flight attendants in different cabin areas shall be managed separately and provide separate in-flight services. The flight crew working area, passenger sitting area, area for close contacts and quarantine area for ill traveler on an aircraft shall be served by different flight attendants. In principle, flight attendants are not allowed to leave the area they serve, and they should avoid close contact with passengers or other flight attendants.

9.5.2 Only pre-packaged food and bottled drinking water will be provided, which are placed in the back pocket of the front seat before boarding. Except for special needs, catering service will no longer be provided during the flight.

9.6 Handling of In-flight Emergencies

9.6.1 If there are any suspicious passengers on board showing such symptoms as fever, fatigue or dry cough, an arrangement shall be made to sit them in the quarantine area.

9.6.2 Once the cabin is found to have been contaminated by blood, secretions, excreta, vomit and other liquids, it shall be disinfected instantly following the specific procedures in Article 7 - Handling of In-flight Medical Emergencies, paragraph 3, sub-paragraph 3 - ongoing aircraft disinfection.

9.6.3 For other considerations, please refer to the relevant description in the Handling of In-flight Medical Emergencies.

9.7 Procedure for Crew Members Deplaning after Operation

9.7.1 After landing, the aircraft shall park at a remote stand (no bridge docking allowed), and a special passage shall be set aside for crew members, in order to avoid mixed flow with passengers. The flight crew shall deplane after the cabin crew members have deplaned, and they shall be picked up separately by a special vehicle.

9.7.2 Cabin crew members shall take off their protective equipment at the door and change their facial masks before deplaning.

9.7.3 Flight crew members are prohibited from opening the cockpit door unless cabin crew members have deplaned. Protective equipment should be changed in the cleaning area.

9.7.4 All the discarded protective equipment of crew members shall be placed in special yellow medical waste bags and be centrally disposed of as medical waste.

9.8 Aircraft Disinfection

Terminal disinfection shall be performed after landing, by referring to the specific procedures as detailed in Article 7 - Handling of In-flight Medical Emergencies, paragraph 4, subparagraph 4 - terminal disinfection of aircraft passenger cabin.

All wastes in the cabin shall be centrally disposed of as medical waste.

9.9 Quarantine Management for Crewmembers

All crew members shall be put under a centralized quarantine and medical observation for 14 days. During the period of centralized observation, they shall monitor their physical conditions on a daily basis, and are not allowed to go out except for the urgent need to fly a charter flight.

During the period of centralized quarantine and medical observation, if a flight crew member is required to fly yet another charter flight, the quarantine period shall be recalculated.

10. Procedures for Handling of Passengers (with Normal Body Temperature) from High-risk Countries Transferring at Domestic Airports

Any passengers with normal body temperature from high-risk countries (regions) transferring in Beijing should be handled in accordance with the following procedures, which can be used as a reference by other airports in China:

10.1 The airport shall coordinate with local customs to set up a special waiting area, coordinate with the public security department and health quarantine or disease control department to quarantine the passengers in question, and provide them with basic daily necessities such as food. For passengers staying overnight, the airport shall make timely contact with the local government which shall make arrangements to place the passengers under quarantine at a designated place. After the passengers' departure, terminal disinfection shall be performed in the quarantine waiting area.

10.2 Accompanying airport staff should wear facial masks, gloves, goggles or face screens.

10.3 The airport shall adopt such measures as simplifying boarding formalities, setting up a quarantine passage, and assigning a designated person to monitor the passengers, in a bid to prevent cross-infection at the airport, and shall promptly provide the airlines concerned and destination airport with information on the passengers, enabling them to make preparations for the proper handling of the incoming passengers.

10.4 The passengers in question shall enplane before others and deplane after others. They shall be arranged by the airline to sit by the window in the last three rows, and use exclusively the bathroom on the rear right side of the cabin. The airlines will provide pre-packaged food and water in advance, and will not provide them with any direct on-board services.

10.5 Passengers with abnormal body temperatures and passengers who will not transfer after landing shall be handed over to the relevant local departments for follow-up action.

11. Methods of Psychological Self-Regulation for Front-line Personnel of Airlines

The front-line personnel can chose the following methods to protect themselves from psychological crisis and maintain a good mental health state.

11.1 Having a Good Understanding of Own Emotional Experience

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 we find that we have some emotional experiences we don't familiar with, we needn't to be stressful. It is normal for us to have these psychological changes. If we allow these reactions to occur and accept what is happening, rather than deny and reject them, positive changes will naturally ensue.

Where our negative emotions cannot be relieved through self-regulation, resulting in extreme fear and anxiety, even affecting our sleep and diet, it's recommended to seek professional help.

11.2 Acquiring the Epidemic Information with a Proper Attitude

The huge amount of information about the epidemic will leave us with a strong sense of anxiety and helplessness. We should avoid being influenced by emotionally charged information. We'd better to seek information from formal media and official websites, and never fall victim to certain rumors. Also, we should develop a proper plan on when to get information online, and in particular try to avoid exposure to influx of information at the time when we feel most fragile (such as right before bedtime). And last, we should avoid the vicarious trauma caused by information overload. We need to leave enough time for ourselves to listen our inner voice and be aware of our emotional changes. That can help us to turn panic into appropriate personal protection.

11.3 Friendly and Mutual Social Support

Social connection can calm us down. Communicating with others is the most effective way to relief our stress. On the one hand, through frequent communication with family and friends by telephone and the Internet, we can encourage each other, share our feelings and reinforce mutual psychological support; on the other hand, by making contact with colleagues in similar situations, we can lend our ears to each other and renew our connections, in a bid to building a psychological anti-epidemic alliance.

11.4 Maintaining a Stable and Healthy Lifestyle

Maintaining a regular working and resting schedule and having a sense of self-control are the good panacea for anxiety and panic. Although our ranges of activities are restricted, we still can take a positive look at life. We should, to the greatest extent possible, maintain our regular schedule and follow our usual daily routine, allowing us to return to our normal life. In addition, we should develop good living and hygiene habits, keep a healthy diet, have enough sleep, and never try to ease our tension through the use of tobacco and alcohol.

12. Proper Use of Personal Protective Equipment

In order to provide guidance to front-line staff in civil aviation on how to correctly wear facial masks, hats, gloves, goggles and other protective equipment, our office made a video, downloadable from the website ams.caac.gov.cn under Prevention and Control of Public Health Emergency.

CAAC

Attachment 1

Table1: Scoring Recommendations on the Rating of Flight Epidemic Risk Level Classification

Factors \ Scores	1	2	3	4	5
Confirmed Cases in the Place of Origin (N)	< 50	50-100	101-500	501-1000	> 1000
Passenger Load (%)	< 40	40-80	> 80	—	—
Duration of Flight (H)	< 4	4-8	> 8	—	—

Note:

1. Domestic origin cases should be defined by provinces/municipalities/autonomous regions/Hong Kong, Macao and Taiwan (data source: National Health Commission), foreign origin cases should be defined by country (data source: WHO).

2. Flights without high-efficiency particulate air (HEPA) filtering system should be deemed as high-risk flights.

3. Risk levels can be upgraded accordingly in case of emergencies and special flights.

4. According to the sum of scores, risk levels can be divided into high, medium and low.

Low risk flights: 3-4

Medium risk flights: 5-7

High risk flights: 8-11

Table 2: Aircraft Cleaning Types

Area	Cleaning Items	Stopover Times (min)		Postflight
		＜60min	＞60min	
Flight deck	Clean crew tables and glass holders	On request	√	√
	Clean stowage areas and racks	On request	√	√
	Wipe seats	On request	√	√
	Clean floor/Vacuum carpet	On request	On request	√
	Clean flight deck windows inside	On request	On request	√
	Clean door and walls	On request	On request	√
	Empty ashtrays (if installed)	√	√	√
Cabin	Dispose of waste from closets	√	√	√
	Dispose of litter and newspapers	√	√	√
	Dispose of waste in seat pockets	√	√	√
	Clean tray tables	On request	On request	√
	Clean cabin crew seat tables	On request	On request	√
	Clean interphone surfaces	On request		√
	Clean cabin windows inside			√
	Vacuum cloth-covered seats		On request	√
	Wipe leather-covered seats		On request	√
	Clean overhead bins outside and latch handle surfaces	On request	On request	√
	Dispose of waste in overhead bins		On request	√
	Clean PVC floors			√
	Vacuum carpet		On request	√
	Replace pillows, headrest covers and blankets			√
	Clean in-seat monitors and service control unit panels			√
	Clean seats and armrests	On request	On request	√
	Remove passenger seat cushions and vacuum			√
	Remove stains from carpets			√
	Clean seat rails, air inlets, ceiling, sidewalls, closets, bulkheads and magazine racks			√
Galleys	Empty waste bins and insert waste bags	√	√	√
	Clean doors, latches, ceiling and ventilation grids (air-conditioning vents)	On request	On request	√
	Clean faucets, sink and working surfaces	On request	√	√
	Clean retractable tables	On request	√	√
	Clean ovens inside and outside	On request	On request	√
	Clean service trolleys	On request	√	√
	Clean PVC floors	On request	On request	√
Lavatories	Empty waste bins and insert waste bags	√	√	√
	Clean toilet bowl and seat	√	√	√
	Clean basin, faucets and surfaces	√	√	√
	Clean mirror	√	√	√
	Clean change table	√	√	√
	Clean wall surfaces and interior and exterior door	√	√	√

	handles and locks			
	Clean PVC floors	√	√	√
	Replenish soap dispenser	On request	√	√
	Replenish toiletry items	On request	√	√
Crew rest areas	Dispose of waste from closets		√	√
	Dispose of litter and newspapers		√	√
	Remove sheets, pillows and blankets from each sleeping berth		√	√
	Clean pillows and blankets		√	√
	Clean controls (for lights and ventilation) and interphone surfaces		√	√
	Vacuum carpet			On request
	Clean any cabin crew seat tables		√	√
	Clean any cabin windows inside		√	√

CAAC

Preventing Spread of Coronavirus Disease 2019 (COVID-19) Guideline for Airports

Third Edition

In order to prevent and control spread of COVID-19 and to further refine the prevention and protection of medical staff working at airports and on-site emergency response measures, the third edition of the *Preventing Spread of Coronavirus Disease 2019 (COVID-19) Guideline for Airports Technical Guidance* is developed based on amendment of previous edition.

1. Temperature Screening

Calibrated non-contact thermometers should be equipped in proper places at the departure and arrival areas of terminals, and passengers should be provided with necessary hand sanitizers and disinfection products.

All arriving and departing passengers should have their body temperatures taken, and quarantine areas for passengers with fever should be set up. Once passengers with fever are found, they should be required to wear facial masks, register personal information and their means of contact immediately. Medical departments of airports should be notified in a prompt manner for quarantine. Local health departments should also be informed, and supports should be given to them to take over the passengers concerned.

2. Infection Control Measures for Staff

2.1 Routine Measures

One should wear surgical masks when the local epidemic risk is low, and wear medial protective masks (up to GB19083-2010 standard or equivalent) or particulate respirators (up to GB2626-2006 standard or equivalent) when the risk is high. Alcohol-based or hydrogen peroxide-based hand sanitizers should be distributed to staff for the cleaning and disinfection of their hands, and staff should wear gloves when necessary.

2.2 Personal Protection When Handling Passengers with Fever

One should wear disposable medical caps, surgical masks, gloves and disposable protective clothes. When treating secretions, excreta, and vomit that is potentially contagious, surgical masks (up to YY0469-2011 standard or equivalent) should be replaced with medical protective masks, with additional goggles and disposable shoe covers. When taking off personal protective equipment (PPE), the correct order of steps should be followed to prevent cross-infection. The removed PPE should be placed in medical wastes bags and be disposed of as medical wastes. Reusable goggles should be sterilized and dried every time after use. Goggles with anti-fogging film should avoid being wiped with disinfectant. Instead, it is recommended to be washed with water then exposed to close-range direct ultraviolet lighting for over 30 minutes in a room with no one in it.

3. PPE for Healthcare Worker at Airports

Medical staff working at airports should wear work clothes, disposable work caps, disposable gloves, protective clothing, medical protective masks or facial masks of higher protective levels, protective face screens or goggles, work shoes or rubber boots, and waterproof shoe covers when carrying out emergency response or transferring confirmed, suspected, or ill passengers.

When dealing with or transferring normal passengers in emergency, it is suggested that one should wear disposable caps, surgical masks, and work clothes, and wear disposable rubber gloves when exposed to body fluids or blood.

4. Airport Ventilation

The management of air-conditioning systems and natural ventilation control in public places such as terminals should be enhanced. Practical measures can be taken according to the structure and layout of terminals as well as local climate to improve air circulation. With moderate temperature, doors and windows can be opened; where air-conditioning systems are used, full fresh air operation mode can be started as appropriate, and exhaust system should be turned on to keep the air clean. Special channels or remote stands should be used for flights carrying ill passengers.

5. Hygiene Requirements for Security Inspection

5.1 Protective Measures for Security Inspection Personnel

5.1.1 Basic Measures

When security inspection personnel are on duty, surgical masks and unified work suits should be worn, and uniform caps or disposable medical caps, goggles, protective suits, and disposable rubber gloves, etc. should be equipped as needed. The correct order of wearing PPE should be disposable medical caps, surgical masks, protective suits or unified work clothes, goggles, and rubber gloves. When they are off-duty, the order of removing PPE should be hand disinfection, goggles, hand disinfection, protective suits (or work suits), gloves, facial masks, caps and hand disinfection. Attention should be paid to the following points:

- Hands should be disinfected before wearing PPE;
- Surgical masks should be changed every 4 hours;
- Caps should fully cover all hair, including shock hair on the hairline. Long hair should be fastened tightly on top the head and put into the cap, and the edges of caps should fit close to the sides of ears, and
- Protective equipment needs to be replaced immediately when exposed to passenger's blood, vomit and other potentially contagious body fluids;
- Reusable goggles should be promptly sterilized and dried after each use;
- Hands should not touch faces when taking off protective equipment;
- The removed disposable protective equipment should be put into medical wastes bags.

5.1.2 Enhanced Protective Measures

● Civil aviation security inspection personnel working at document verification posts should wear uniform caps or disposable medical caps, disposable rubber gloves, surgical masks or facial masks with higher protective levels (such as N95 facial masks), goggles or protective facial screens. It is suggested that isolation shields should be installed at document verification counters.

● Civil aviation security inspection personnel working at body searching posts should wear uniform caps or disposable medical caps, disposable rubber gloves, surgical masks or facial masks with higher protective levels (N95 facial masks equipped with priority), goggles or protective facial screens. Wearing protective suits or unified work uniforms should be based on the conditions of disease.

● For personnel working at document verification and body searching posts, their work uniforms should be subject to centralized high-temperature steam disinfection for 20 to 40 minutes or ultraviolet lighting for 1 to 2 hours when they are off duty for the day. 75% alcohol can be applied to wipe clothes when confirmed, suspected cases or passengers with suspicious symptoms are found, as well as when potentially contagious body fluids are treated in emergency. And disinfectant mats should be provided, or soles can be sprayed with disinfectant.

5.2 Hygiene Requirements for Security Inspection Areas

The management of air-conditioning systems and natural ventilation in security inspection areas should be enhanced to keep the air clean, and civil aviation security inspection aisles should be equipped with relevant facilities to enhance ventilation. During operation, key areas (document verification counters, baggage packing areas, security bins, hand-held metal detectors) and security screening facilities should be disinfected regularly, and hand disinfectant should be provided in screening aisles. After the daily operation, areas and facilities such as security inspection sites and trash bins should be wet-cleaned, and all-round disinfection needs to be performed to keep the environment clean.

6. Wastes Disposal

The management of wastes sorting and the collection of used masks should be enhanced so that wastes could be cleaned in time. The cleaning of wastes containers such as trash cans should be strengthened, and regular disinfection should be performed, either by spraying or wiping with 250 to 500mg/L chlorine disinfectant, or by disinfected wipes. When potentially contaminated wastes are found, related local departments should be promptly contacted in accordance with the *Regulations on Medical Wastes Management*.

7. Disinfection of Airport Public Areas

Disinfection of airport public areas should follow the *Guidelines for Prevention of Novel Coronavirus Infection in Public Places* and *Guide to Disinfection Techniques in Public Places* issued by National Health Commission.

7.1 Daily Preventative Cleaning and Disinfection

Preventative cleaning and disinfection of public places in airports should be conducted on a daily basis. Conspicuous signs that show the daily disinfection should be put up, and the records of staff performing the disinfection tasks should be kept.

7.1.1 Air disinfection: use natural ventilation where conditions allow; air conditioning ventilation should be enhanced, and exhaust fans should be cleaned and disinfected once every month. 250 to 500mg/L chlorine disinfectant or 250mg/L chlorine dioxide spray could be applied for reaction no less than 30 minutes, and hydrogen peroxide spray with ultra-low concentration could be used in key areas. Ventilation is needed when disinfection is completed.

7.1.2 Surface disinfection: crowded places and high-touch surfaces (such as self check-in or check-in counters, document verification counters, buttons in elevators, and handrails) should be the focuses. 250 to 500mg/L chlorine disinfectant or 250mg/L chlorine dioxide spray could be used together when wiping.

7.2 Terminal Disinfection

When suspected or confirmed cases, or passengers with suspicious symptoms are found in airports, terminal disinfection should be performed by professionals, using one of the following methods:

7.2.1 Hydrogen peroxide gas sterilization devices can be used for integrated disinfection of the air and the environment. The specific operation can be performed according to the equipment instruction manual.

7.2.2 0.5% peroxyacetic acid, 3% hydrogen peroxide, or 500mg/L chlorine dioxide can be adopted for air disinfection, by way of aerosol spray, and use 20ml/m^3. Windows should be closed before disinfection, and spraying should start from up-down, and then from left to right. Windows can be opened for ventilation after 60 minutes of action. After spray disinfection, the surface of objects may be wiped (swept) in the way of daily disinfection.

7.2.3 For key areas that are contaminated, 1000 to 2000mg/L chlorine disinfectant can be applied by spraying or wiping for reaction of more than 30 minutes.

8. Methods of Psychological Self-Regulation for Front-line Personnel of Airports

The front-line personnel can chose the following methods to protect themselves from psychological crisis and maintain a good mental health state.

8.1 Having a Good Understanding of Own Emotional Experience

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 we find that we have some emotional experiences we don't familiar with, we needn't to be stressful. It is normal for us to have these psychological changes. If we allow these reactions to occur and accept what is happening, rather than deny and reject them, positive changes will naturally ensue.

Where our negative emotions cannot be relieved through self-regulation, resulting in extreme fear and anxiety, even affecting our sleep and diet, it's recommended to seek professional help.

8.2 Acquiring the Epidemic Information with a Proper Attitude

The huge amount of information about the epidemic will leave us with a strong sense of anxiety and helplessness. We should avoid being influenced by emotionally charged information. We'd better to seek information from formal media and official websites, and never fall victim to certain rumors. Also, we should develop a proper plan on when to get information online, and in particular try to avoid exposure to influx of information at the time when we feel most fragile (such as right before bedtime). And last, we should avoid the vicarious trauma caused by information overload. We need to leave enough time for ourselves to listen our inner voice and be aware of our emotional changes. That can help us to turn panic into appropriate personal protection.

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Social connection can calm us down. Communicating with others is the most effective way to relief our stress. On the one hand, through frequent communication with family and friends by telephone and the Internet, we can encourage each other, share our feelings and reinforce mutual psychological support; on the other hand, by making contact with colleagues in similar situations, we can lend our ears to each other and renew our connections, in a bid to building a psychological anti-epidemic alliance.

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Maintaining a regular working and resting schedule and having a sense of self-control are the good panacea for anxiety and panic. Although our ranges of activities are restricted, we still can take a positive look at life. We should, to the greatest extent possible, maintain our regular schedule and follow our usual daily routine, allowing us to return to our normal life. In addition, we should develop good living and hygiene habits, keep a healthy diet, have enough sleep, and never try to ease our tension through the use of tobacco and alcohol.

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In order to provide guidance to front-line staff in civil aviation on how to correctly wear facial masks, hats, gloves, goggles and other protective equipment, our Office made videos, downloadable from the website ams.caac.gov.cn under Prevention and Control of Public Health Emergency.

Public Health Agency of Canada | Agence de la santé publique du Canada

March 9, 2020

RE: Recommended disinfection and sanitation practices for aircrafts

Dear Sir or Madam,

I am writing to inform you that, as part of the Government of Canada's efforts to mitigate the spread of coronavirus disease (COVID-19), the Public Health Agency of Canada has developed recommendations for disinfection and sanitation practices for airlines.

The protection of public health is a shared responsibility. The Public Health Agency of Canada enforces the Quarantine Act (2005) at points of entry into Canada, and is responsible for ensuring that conveyances and their contents are not a source of communicable disease of quarantine concern. Airlines play a key role in efforts to prevent the introduction and spread of communicable disease in Canada. During this period of heightened concern, we are encouraging all airlines to take additional precautions on flights arriving from regions affected by local transmission of COVID-19 in order to prevent the spread of the novel coronavirus from potentially contaminated surfaces inside an aircraft.

Based on available information, it is estimated that coronaviruses can survive on hard surfaces from 24 hours to several days. Although the transfer of the virus from inanimate objects to humans is unknown, the virus can be transmitted by hand contact to the mucous membranes of the eyes, nose, and mouth where infection is likely to occur. Hand and respiratory hygiene are important ways of interrupting this transmission.

Increasing the frequency of routine cleaning and disinfecting of high touch surfaces is an important measure in controlling the spread of infection during any outbreak. On a precautionary basis, the Public Health Agency of Canada recommends that, in addition to routine grooming practices, passenger aircraft arriving from regions affected by local transmission of novel coronavirus thoroughly clean and disinfect frequently touched areas following disembarkation (see attached Annex for details). A listing of regions affected by local transmission of COVID-19 is available at the World Health Organization website https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports.

The Public Health Agency of Canada also recommends that, following the identification of ill passengers onboard, the area within a two (2) meter radius of the affected passenger's seat be thoroughly cleaned and disinfected (see attached Annex for details). These measures should be implemented in addition to the enhanced routine sanitation practices mentioned above.

Upon identification of a suspected ill passenger with symptoms consistent with COVID-19, PHAC advises your airline and asks that these enhanced sanitation measures be implemented. If deemed necessary, PHAC may be required to take measures under the *Quarantine Act* to address any potential public health risk.

If you have any questions about the recommendations for disinfection and sanitation practices, please contact the Public Health Agency of Canada at phac.obth-aspc.bssvf@canada.ca

The current situation for COVID-19 is dynamic. As the situation and knowledge of the virus evolves, we will inform you of additional relevant information. Additional information is available on the Canada.ca website https://www.canada.ca/coronavirus.

The health and safety of Canadians is our priority. We thank you for your continued assistance in this regard.

Sincerely,

George Samiotis
Director, Office of Border and Travel Health
Public Health Agency of Canada

Annex: Environmental Sanitation Practices for Airlines to Control the Spread of Novel Coronavirus

This guidance is based on current available scientific evidence and expert opinion and is subject to change as new information on transmissibility and epidemiology becomes available. This guidance builds upon relevant Canadian guidance developed for the current and previous coronavirus outbreaks (e.g. MERS CoV and SARS-CoV), in addition to available guidance from the World Health Organization (WHO).

The following guidance is provided by the Public Health Agency of Canada (PHAC) in response to the outbreak of novel coronavirus (COVID-19). It is intended to complement PHAC's guidance on *Environmental Sanitation Practices to Control the Spread of Communicable Disease in Passenger Conveyances and Terminals.*

Recommendations

Personal Hygiene

- Wash your hands regularly, and whenever they become soiled.
    - Washing hands with soap and running warm water is best, because of the removal action of soap and water on transient microorganisms.
    - Hands should be washed using soap and warm water for at least 20 seconds.
    - If soap and water are not available, an alcohol-based hand sanitizer (ABHS) can be used as a temporary measure until handwashing can be done. ABHS containing 60-90% alcohol concentration (optimally over 70%) are the most rapidly active of all agents used in hand disinfection. However, ABHS may not be effective when there is organic material on your hands (e.g. after using the toilet). For this reason, ABHS alone should not be used on visibly soiled hands. Use wipes to remove soil, followed by an ABHS.

- Practice proper respiratory etiquette. Cover your mouth and nose with your arm when you cough or sneeze to reduce the spread of germs. If you use a tissue, dispose of it as soon as possible. Wash your hands afterwards.

Equipment

The following equipment should be available for cleaning and disinfecting. Equipment should be kept and stored together as part of a kit that can be easily accessed and transported to the area where it will be used.

- Personal protective equipment (as required by the operator's health and safety protocol)

- Disposable cloths
- Paper towels and absorbent materials
- Waste disposal bags, labels and tape
- Cleaning agents
- Appropriate hard-surface disinfectants
- Test strips for verifying disinfectant concentrations.

Disinfectants

For areas potentially contaminated with COVID-19, a disinfectant with a broad-spectrum virucide claim is acceptable. To be consistent with PHAC's guidance for disinfecting body fluids (ie. Diarrhea, vomit, blood) a broad-spectrum virucide with a claim of effectiveness against human Norovirus is recommended for all contaminated surfaces

For routine disinfection for most environmental surfaces, a general or hospital disinfectant is acceptable. Disinfectants with efficacy as a general or hospital disinfectant may have the label claims "germicide" or "kills germs". Follow the manufacturer's instructions for the recommended dilution rates, contact times and conditions specific to the surface.

Disinfectants must be registered for sale in Canada with a Drug Identification Number (DIN). For further information regarding disinfectant products, please refer to Health Canada's website and the Disinfectant Guidance Document.

Routine Sanitation

Routine cleaning and disinfection practices are essential in minimizing the spread of infection. Increasing the frequency of routine cleaning and disinfection of frequently touched surfaces is an important measure in controlling the spread of infection during any outbreak. It is recommended that all passenger aircraft arriving from areas affected by COVID-19 thoroughly clean and disinfect the frequently touched areas listed below following every flight.

Frequently touched areas include:

- Lavatories including doors, toilet handles, faucets and waste bins
- Seatbacks, tray tables and handles,
- Personal entertainment units including remote controls
- Luggage storage bin handles,
- Overhead lighting, air vents and call buttons
- Arm rests
- Seat covers
- Seatbelts
- Aisle seat headrests
- Windows and window shades.

These enhanced measures should be incorporated into the routine grooming practices and should follow existing cleaning and disinfection protocols.

Response to Ill Traveller - Enhanced Sanitation

Following the carriage of a passenger with coronavirus, the cleaning and disinfecting procedures outlined below should be followed.

Body fluids, such as respiratory tract secretions and excretions (e.g. cough, sneeze, and sputum), blood, vomit or diarrhea, may contain microorganisms that cause disease. These fluids, and surfaces that come in contact with them, should always be treated as infectious and handled with care so that diseases are not spread from one person to another.

As respiratory tract secretions and excretions are not readily visible, an area of two (2) metres in every direction from the location of the ill passenger should be considered potentially contaminated. This area includes the three (3) rows immediately in front of and behind the ill passenger, as well as adjacent seats within the two (2) metre radius, approximately five (5) seats.

Cleaning and Disinfection Steps:

1. Identify areas to be cleaned and disinfected.
2. Where possible, restrict access to the affected area until disinfection activities are completed.
3. Put on disposable, impervious gloves. Direct contact with body fluids should be avoided. Perform hand hygiene following any direct contact. Avoid hand contact with the face, especially the nose and eyes.
4. Bring all supplies needed to the affected area at the beginning of the process. This includes waste disposal bags, a detergent/cleaner, a disinfectant, water, paper towels, and cloths.
5. Use paper towels to absorb any visible body fluids. Place waste into waste disposal bags.
6. Clean visibly soiled surfaces with water and a detergent/cleaner. Cleaning is a critical step prior to disinfection. Clean equipment or surfaces in a way that avoids possible generation of aerosols.
    - Avoid pouring liquids from high above the surface
    - Avoid splashing of cleaning and disinfection products
    - Avoid using motorized cleaning equipment.
    - Vacuum cleaners should only be used after disinfection has taken place.
7. Clean and disinfect all hard surfaces in the affected areas.
8. Apply the disinfectant to the surface as per manufacturers' instructions.
    - Ensure disinfectants are fresh and verify an effective concentration by

using test strips (for prepared disinfection solutions)
    - To avoid recontamination of disinfected areas, start at one end of the affected area and move in one direction until all surfaces have been disinfected. Do not use a circular motion.
9. Special cleaning of upholstery, carpets, or storage compartments is not required unless obviously soiled with fresh body fluids.
    - If a seat cover is obviously soiled with body fluids, it should be removed and discarded by the methods typically used for contaminated items.
10. Remove and dispose of items such as blankets or pillows along with the passenger safety card and print materials from the affected area.
11. Frequently replace cleaning and disinfection cloth; when they become soiled, when moving from one area to another, and when moving between areas of higher and lower likelihood of contamination.
12. Change gloves frequently during cleaning and disinfection activities, especially if they become heavily soiled or damaged during use.
13. Dispose of soiled cleaning cloths, disinfection cloths, disposable gloves and any other item in contact with respiratory tract secretions or excretions in a waste disposal bag.
14. Wash hands when finished, using proper hand washing techniques.
15. Clean and disinfect sanitation equipment that will be reused prior to storing.
16. All final waste disposal should be done according to appropriate waste protocols.

Other Considerations

Baggage and Packages

No additional precautions are recommended for baggage and packages that accompany ill travelers. Routine precautions are recommended.

Handling Linen, Dishes, Cutlery

No additional precautions are recommended. Routine practices and precautions for handling potentially contaminated articles are sufficient.

Waste Management

No additional precautions are recommended. All personnel handling waste should use standard precautions and perform hand hygiene after removing personal protective equipment. Waste disposal should be done according to appropriate waste protocols and in accordance with applicable legislation and regulations.

Safety Directive under Article 76(6)(b) of Regulation (EU) No 2018/1139

SD No.: **2020-01**

Issued: **13 March 2020**

Note: This safety directive (SD) reacting to an urgent safety problem is issued by the Agency in accordance with Art. 76 (6) (b) of Regulation (EU) No 2018/1139.

Subject: Operational measures to prevent the spread of Coronavirus `SARS-CoV-2` infection

Effective Date: 16 March 2020

Supersedure: Not applicable

Applicability:

National Aviation Authorities (NAAs) responsible for the certification and oversight of aircraft operators involved in commercial air transport of passengers in accordance with Commission Regulation (EU) 965/2012.

Definitions:

Airports located in affected areas with high risk of transmission of the CoViD-19 infection are airports listed in Annex 1 to this Safety Directive. This Annex 1 is developed in coordination with Member States and based on the information from World Health Organization (WHO), European Centre for Disease Prevention and Control (ECDC) and other reputable public health institutes. This list will be regularly updated and available in the EASA Safety Publication Tool and on the EASA website.

Reason:

The outbreak of novel coronavirus disease (CoViD-19) in the city of Wuhan, People's Republic of China (PRC) that is caused by SARS-CoV-2 has spread rapidly in China and worldwide, and has been qualified by WHO as a pandemic on 11 March 2020. Based on the reports published by the WHO, the International Civil Aviation Organization (ICAO) and the ECDC, EASA issued the Safety Information Bulletin (SIB) 2020-02 (later revised, now at Revision 2), providing recommendations to the NAAs and Aircraft and Aerodrome operators in order to reduce the risk of spreading of the SARS-CoV-2.

Since that SIB was issued, the situation concerning CoViD-19 across Europe has rapidly evolved with the development of European clusters of the virus. The spread of SARS-CoV-2 is still on an increasing curve and the peak values as estimated by DG SANTE and ECDC have not yet been reached. Furthermore, the current scientific evidence show a potential persistence of SARS-CoV-2 on surfaces up to several days depending on the environment.

For the reasons described above and in order to prevent the spread of the SARS-CoV-2 from potentially contaminated surfaces inside aircraft operated by operators certified in accordance with Commission Regulation (EU) 965/2012, EASA has decided to issue this Safety Directive which:
(1) determines the safety objective to be achieved by the NAAs in respect of those operators, and
(2) recommends corrective actions to be taken to achieve that objective.

In parallel EASA has issued, in accordance with Article Art. 76 (6) (a) of Regulation (EU) No 2018/1139, an equivalent Safety Directive 2020-02 addressed to Third Country Operators (TCOs) authorised by EASA pursuant to Commission Regulation (EU) No 452/2014 to perform commercial air transport operations into, within or out of the territory subject to the provisions of the Treaty on European Union.

Safety Objective(s) to be achieved:

To minimise the risks to passengers and to the general public, due to operations from airports located in affected areas with high risk of transmission of the CoViD-19 infection by aircraft operators certified in accordance with Commission Regulation (EU) 965/2012.

Recommended Corrective Action(s) to be taken:

(1) NAAs to ensure, by taking the appropriate national measures, that aircraft operators under their oversight and involved in commercial air transport of passengers in accordance with Commission Regulation (EU) 965/2012 from an airport located in an affected area with high risk of transmission of the CoViD-19 infection:

(1.1) Clean and fully disinfect the aircraft using substances suitable for aviation use after each flight coming from an airport located in an affected area with high risk of transmission of the CoViD-19 infection (see Note 1 of this SD).

Note 1: Such as substances containing 62%-71% ethanol alcohol, 0.5% hydrogen peroxide, or 0.1% sodium hypochlorite. Suitability of the substances should be checked against the aircraft manufacturers' documentation.

The operator may implement different 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. In such a case, the operator shall ensure that the aircraft is fully cleaned and disinfected not later than 24 hours after the departure from an airport located in an affected area with high risk of transmission of the CoViD-19 infection.

(1.2) Equip the aircraft with one or more Universal Precaution Kits. Such kits should be used to protect crew members who are assisting potentially infectious cases of suspected CoViD-19 and in cleaning up and correctly discarding any potentially infectious contents.

Information on the actions taken:

(2) NAAs shall take measures to achieve the determined safety objective within 7 days from the effective date of this Safety Directive and inform EASA of those measures.

Ref. Publications:

EASA SD 2020-02 dated 13 March 2020.

Remarks:

1. Enquiries regarding this SD and the information on the actions taken to implement it should be referred to the EASA Programming and Continued Airworthiness Information Section, E-mail: ADs@easa.europa.eu.

IFATCA

INTERNATIONAL FEDERATION OF AIR TRAFFIC CONTROLLERS' ASSOCIATIONS

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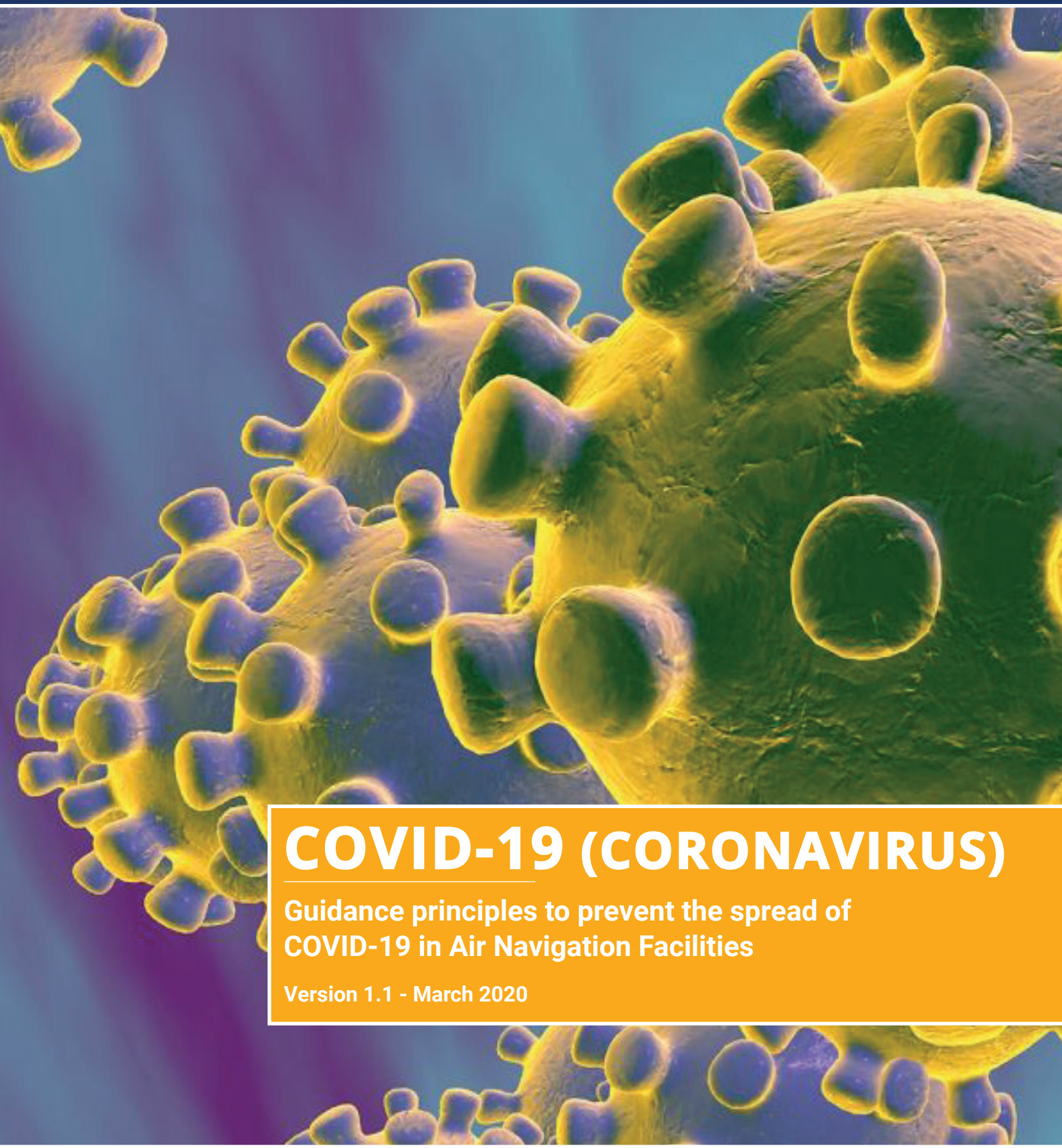

COVID-19 (CORONAVIRUS)

Guidance principles to prevent the spread of COVID-19 in Air Navigation Facilities

Version 1.1 - March 2020

GUIDANCE MATERIAL

IFATCA is the recognised international organisation representing air traffic controller associations. It is a non-political, not-for-profit, professional body that has been representing air traffic controllers for more than 50 years, and has more than 50,000 members in over 120 countries.

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COVID-19 and Air Navigation Services

INTRODUCTION

The world is once again facing a global crisis that is not sparing the aviation industry. This crisis will impact each and every one of us in a number of ways. It is inevitable that every Member Association will be asked to contribute to the effort of their ANSP to manage the crisis.

This Guidance Material has been developed to help IFATCA Member Associations respond to the COVID-19 crisis surrounding the responses of their employers and the aviation industry in general. This Guidance Material aims to support the IFATCA Member Associations to assist where possible their employers (Governments, National Agencies, Air Navigation Services Providers).

The current crisis has hit the global civil aviation industry and recovery will take some time. On March 11th 2020, the World Health Organisation has declared a global pandemic. The order of magnitude is unprecedented and will affect all activities of our society. Mathematical models on exponential growth can assist to better understand how the COVID-19 will evolve:

https://www.youtube.com/embed/Kas0tIxDvrg

BACKGROUND INFORMATION [1,2]

Coronaviruses are a large family of viruses which may cause illness in animals or humans. In humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered coronavirus causes coronavirus disease COVID-19.

The most common symptoms of COVID-19 are fever, tiredness, and dry cough. Some patients may have aches and pains, nasal congestion, runny nose, sore throat, or diarrhea. These symptoms are usually mild and begin gradually. Some people become infected but don't develop any symptoms and don't feel unwell.

Illness due to COVID-19 infection is generally mild, with most people (about 80%) recover from the disease without needing special treatment. Around 1 out of every 6 people who gets COVID-19 becomes seriously ill and develops difficulty breathing. Older people, and those with underlying medical problems like high blood pressure, heart problems or diabetes, are more likely to develop serious illness. People with fever, cough and difficulty breathing should seek medical attention.

It is important that measures taken to combat the spread of the virus are based on solid health care principles and are not disproportionate to the risk.

[1] https://www.who.int/news-room/q-a-detail/q-a-coronaviruses (accessed 9 March 2020)

[2] https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html

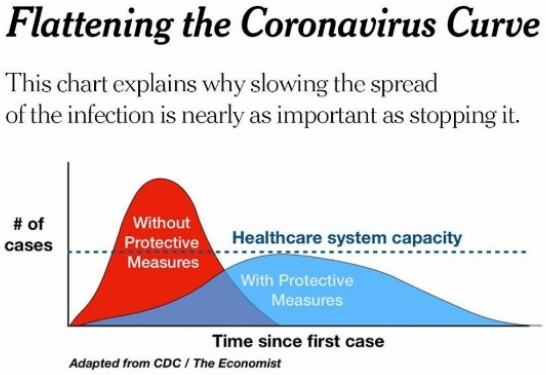
How COVID-19 spreads [3,4]

When someone who has COVID-19 coughs or exhales they release droplets of infected fluid. Most of these droplets fall on nearby surfaces and objects - such as desks, tables or telephones. People could catch COVID-19 by touching contaminated surfaces or objects – and then touching their eyes, nose or mouth. If they are standing within one meter of a person with COVID-19 they can catch it by breathing in droplets coughed out or exhaled by them. In other words, COVID-19 spreads in a similar way to flu.

It is not certain how long the virus that causes COVID-19 survives on surfaces, but it seems to behave like other coronaviruses. Studies suggest that coronaviruses (including preliminary information on the COVID-19 virus) may persist on surfaces for a few hours or up to several days. This may vary under different conditions (e.g. type of surface, temperature or humidity of the environment). [5]

WHAT IS HAPPENING

The COVID-19 originated in the beginning of December 2019 in the province of Hubei with the epicentre being located in the city of Wuhan. It has since spread nearly all over the planet. Where curtailing the spread of the virus was not possible, the affected governments are trying to delay or reduce the spread of the disease to the level where the solicitation of the hospitals and the emergency services can be managed. This can only be achieved by imposing drastic measures, such as reducing travel to the essential and vital minimum. According to the available data the population most at risk are elderly persons and persons with reduced immunity. The aim of most measures is shown in the figure below.



Some regions of the world have been put under confinement and governments have imposed drastic measures with regard to flights being allowed into their territory. This has resulted in airlines downgrading their offers and grounding of their fleets.

IMPACT ON AIR TRAFFIC CONTROL SERVICES

Air Traffic Control is a critical infrastructure. In some countries, it is designated an essential service and thus particular measures have and will be put in place which will affect air traffic controllers. Although it is too early to be able to assess the full impact of the global crisis on Air Traffic Services, two distinct threads can be observed. They can be grouped into two distinct categories:

- Control Healthy
- Continue to control air traffic

[3] https://www.who.int/docs/default-source/coronaviruse/getting-workplace-ready-for-covid-19.pdf?sfvrsn=359a81e7_6

[4] https://www.cdc.gov/coronavirus/2019-ncov/about/transmission.html

[5] https://www.who.int/news-room/q-a-detail/q-a-coronaviruses 'How long does the virus survive on surfaces?' (accessed 8 March 2020)

CONTROL HEALTHY

Like any other citizen, the aim is that an air traffic controller does not contract the virus. Different measures have been put in place and are guided in most of the nations by the rules and regulations imposed by the public health authorities. ATCOs shall pay particular attention to these recommendations and follow them strictly:

- WASH YOUR HANDS
- RESPECT SOCIAL DISTANCE
- COUGH AND SNEEZE INTO YOUR ELBOWS
- IF YOU HAVE FLUE-LIKE SYMPTOMS OR ANY OTHER HEALTH ISSUE – STAY AT HOME

Should your government or employer impose certain restrictions (e.g. quarantine, or shadow teams), follow them strictly. The health of your work colleague, your family and your neighbours depend on it.

As air traffic control is part of the critical infrastructure, it has to be the aim of any professional in ATC to remain fit and reduce exposure to the widest extend possible. There is however real risk that ATCOs and ATM professionals will contract the virus, thus leading to isolation and possible quarantine measures. This puts unprecedented challenges on Air Navigation Service Providers and staff. Critical infrastructure is the body of systems, networks and assets that are so essential that their continued operation is required to ensure the security of a given nation, its economy, and the public's health and/or safety.[6]

CONTINUE TO CONTROL AIR TRAFFIC

Travel bans, cancellation of flights and grounding of fleets will result in a dramatic fall in air traffic in all regions of the world. As has happened before, this drop may lead to the perception that there is overstaffing of ATCOs and other ATM Professionals. Experience with past crises (2001, 2003 and 2008) has taught IFATCA that adapting to a situation with low traffic brings many challenges. This guidance material should help Member Associations, as well as individual ATCOs, to be prepared to assist their employers, thus striking a balance between the necessary crisis measures and the worker's rights and duties.

[6] Definition from whatis.techtarget.com, accessed on 12.3.2020

CHALLENGING TIMES AHEAD – TIME TO ACT

What is needed now is to focus on making sure that we do not need to close down towers or centres and to get through the situation as smoothly as possible, without upsetting the crisis measures that we have taken in order to ensure that the ANS will retain a strong foundation. As part of the Critical Infrastructure ANS will have to provide continuous operations to any possible users of the system (in particular emergency, search and rescue, government and special flights).

IFATCA advises you, as a Member Association, to help your ANSP as much as possible in the current situation. This includes being flexible with shifts, helping each other with measures that will reduce the spreading of the virus, listening to the advice from health authorities, etc. Apply Critical Incident Stress Management where available. It is essential that IFATCA and its members can provide the necessary infrastructure and service where and when needed during times of distress and need.

Air Navigation Services that need long-term planning and is part of the essential infrastructure. It is not a business that will recover in six months, especially if training is stopped or operational staff dismissed. It is a governmental task that needs to be part of national responsibilities and funding in line with firefighting and roads.

What we are experiencing now will take some time to pass, but after the crisis we will have to deliver 'normal service' again.

This means help your decision makers to continue training programs and not to take measures that would curtail core ANSP activities. If required, stop involvement in non-essential projects. Remain focussed on your core work.

So, what can professional associations do in this current situation? The following possible actions are suggested as ways that our Member Associations can contribute to, or even lead, the discussions in their countries. Of course, any measures taken need to be adapted to your local requirements and conditions.

- Initiate the discussion and do not wait for actions or decisions by your ANSP. Ask your management what measures they are considering taking at a local and national level.
- Request that your association be included as a partner in these discussions and decisions. Point out that no matter what decisions are taken, it is your members who have to implement them and make them work.
- Work with your ANSP to develop containment measures that will not compromise the safety of operations, now or in the future.
- If it is acceptable to your members, negotiate changes to working conditions that can help the situation, while respecting local agreements and conditions.
- As always, safety is paramount. Analyse any proposed changes and the impact they might have on operations from both a technical and professional aspect, both in the short and long term.
- Any measures which are proposed which change the working procedures or technical environment should be supported by a safety case or assessment.
- Be aware that employers that force people to take (unpaid) leave may inadvertently be encouraging employees to come to work when they are not feeling well or even sick. Such a policy may therefore be more costly in the medium term, since more people could get infected.
- Encourage ANSPs to plan for the recovery. Use the traffic downturn as an opportunity to utilise ATCO staff to accomplish the desperately needed "long lead time" ab initio training to help reduce the shortage of ATCOs and plan for the future.

In many cases, the actions that can be taken now might have significant effect on the ATC service. IFATCA warns against rushed decisions that can lead to long-term problems. Overreaction and drastic cost reductions will only INCREASE future costs and add to the already critical shortage of ATCOs that currently exists.

SHARE YOUR EXPERIENCE!

The situation is a unique one, IFATCA has therefore decided to set up a discussion forum on Google Groups to enable you to share your experiences in dealing with this crisis with your colleagues at a global level. We hope that employers and governments will use this opportunity to learn from each other. Under the following link you will find the possibility to share your experience along the following categories.

a) What kind of health measures have been put in place for your ATC unit?
b) Has your association/union been associated to the COVID-19 Taskforces if they exist?
c) If government or employers have introduced quarantine measures, how do they affect the operations/staff?
d) What is the trend of traffic figures?

https://groups.google.com/d/forum/ats-covid

Do not hesitate to contact your respective Regional Executive Vice-president for any further assistance you might need.

EXAMPLE 1

INITIAL MEASURES WITHIN AN ANSP AND HOW TO RESPOND TO THE CURRENT SITUATION

To reduce the risk to operations, all line managers are requested to **critically scrutinise missions with regard to urgency and/or need**, especially when the mission would include the use of public transport and/or the destination involves a large group of people. Using video- and telephone conferencing is encouraged as an alternative.

1. **All non-essential visits to operational environments are suspended**, including private, professional, individual or group visits. Exceptions may only be granted by the head of unit. Visitors should comply with the same entry conditions as staff members and follow the same hygiene etiquette as staff.
2. Staff members and their family members are **encouraged to avoid going to known risk areas.** Staff members who, in the 14 days prior, have been in the currently known risk areas and/or have been in contact with others travelling back/from those areas, shall contact their line managers by phone and stay home for 14 days unless otherwise instructed. For non-operational tasks, teleworking might be a possibility.
3. **All staff are requested to apply increased hygiene measures to reduce exposure and transmission:**
    - Controllers, system controllers and any other staff who share work equipment (keyboards, mouse, touch screens, etc.) must clean their workplace after handover with the available antiseptic cleaning material placed at each workstation and inform if a refill is needed;
    - Clean equipment regularly with the antiseptic cleaning material made available around the building. Staff should clean communal equipment (e.g. in break rooms or sport facilities) before and after using them with the available cleaning material;
    - Door handles, keypads, sports and leisure equipment need to be cleaned more frequently by cleaning staff.
    - Avoid any direct contact (e.g. shaking hands);
    - Avoid touching your eyes, nose or mouth with your hands;
    - Wash your hands frequently for at least 20 seconds with soap;
    - When coughing or sneezing, cover your mouth or nose with disposable paper tissues and throw them away immediately, wash your hands immediately or disinfect using alcohol tissues or cleanser;
    - Avoid close contact with anyone who has cold or flu-like symptoms (fever and sneezing/coughing);
    - Take care of your own health by making sure you sleep enough and eat healthily so that your immune system is strong enough to fight the virus if you get in contact with it.

4. The procedures and advice above are recommended to also be applied responsibly by all staff outside of the workplace e.g. avoid large crowds wherever possible. Staff is advised to follow the advice of the national health authorities regarding travel arrangements.
5. Anyone who shows symptoms of the coronavirus disease and feels ill shall go home immediately and they should contact their line-manager/supervisor by phone or email. Symptoms include fever, excessive sneezing, muscle pain, coughing, difficulty breathing etc.

EXAMPLE 2

Measures to take

ANSPs should ensure workplaces are clean and hygienic, implement general preventative measures, and provide personnel with education on self-measures to limit the spread of the virus.

Personal initiatives may include: [7]

a) Avoid physical contact, avoid hugging or kissing others, and avoid shaking hands - just wave.

b) Avoid close contact with people and public assemblies.

c) Regularly wash hands with soap and water.

d) When sneezing, cover the nose and mouth with the inside of the elbow or using a tissue instead of the hand.

e) Self-check body temperature twice per day. Seek medical advice if the temperature is above 37.3°C or 99°F.

Workplace initiatives may include: [8]

a) At work, employees take temperature before shift, middle of the shift and after the shift.

b) Increase cleaning of door handles, handrails, and lift buttons.

c) Surfaces (e.g. desks and tables) and objects (e.g. telephones, keyboards) need to be wiped with disinfectant regularly.

d) For operational positions, provide sanitising wipes. Personnel take a wipe and perform a general wiping of the keyboards, mouse and touchscreen (protected with a layer to prevent any chemical damage to equipment) when handing over/taking over positions.

e) Create one-way entrance and exit to minimize chances of cross infection.

f) If multiple groups of personnel work in the same building, segregate the lounge, resting area, cafeteria etc.

g) Promote regular and thorough hand-washing by employees, contractors and customers

h) Put sanitizing hand rub dispensers in prominent places around the workplace. Make sure these dispensers are regularly refilled

i) Display posters promoting hand-washing – ask your local public health authority for these or look on www.WHO.int

j) Ensure that face masks and/or paper tissues are available at your workplaces, for those who develop a runny nose or cough at work, along with closed bins for hygienically disposing of them. Remind personnel that masks are necessary for health care professionals and sick persons, healthy persons should not use masks as it limits the availability to those that need them.[9]

[7] https://doh.gov.ae/en/health-information/Coronavirus---COVID--19

[8] https://www.who.int/docs/default-source/coronaviruse/getting-workplace-ready-for-covid-19.pdf?sfvrsn=359a81e7_6

[9] https://www.dha.gov.ae/Covid19/Pages/home.aspx, https://www.who.int/news-room/detail/03-03-2020-shortage-of-personal-protective-equipment-endangering-health-workers-worldwide

k) Brief employees, contractors and customers that if COVID-19 starts spreading in your community anyone with even a mild cough or low-grade fever (37.3 C or more) needs to stay at home. They should also stay home (or work from home) if they have to take simple medications, such as paracetamol/acetaminophen, ibuprofen or aspirin, which may mask symptoms of infection. Make clear to employees that they will be able to count this time off as sick leave.

l) Advise employees and contractors to consult national travel advice before going on trips.

ACTION PLANS

ANSPs should have a plan of what to do if someone becomes ill with suspected COVID-19 at one of the workplace. Consider the following:

a) The plan should cover placing the ill person in a room or area where they are isolated from others in the workplace, limiting the number of people who have contact with the sick person and contacting the local health authorities.

b) In case any staff develop symptoms or there is a confirmed case, the workplace should go through deep cleansing by professionals. This process should be pre-planned for efficient implementation if needed.

c) Consider how to identify persons who may be at risk, and support them, without inviting stigma and discrimination into your workplace. This could include persons who have recently travelled to an area reporting cases, or other personnel who have conditions that put them at higher risk of serious illness (e.g. diabetes, heart and lung disease, older age).

d) Consult with the local public health authority to assist in developing the plan and seek their input.

TRAVELLING

Unless suggested by the health authorities, mandatory quarantine of operational personnel that have travelled but do not display any symptoms may be excessively disruptive to the operation.

Employees who have returned from an area where COVID-19 is spreading should monitor themselves for symptoms for 14 days and take their temperature twice a day.

If they develop even a mild cough or low-grade fever (i.e. a temperature of 37.3°C / 99°F or more) they should stay at home and self-isolate. This means avoiding close contact (one meter or nearer) with other people, including family members. They should also telephone their healthcare provider or the local public health department, giving them details of their recent travel and symptoms.

Caution against additional health verifications or certificates that may place unnecessary burden on the health care system.

CONTINUITY PLANNING

ANSP's should have a plan for an outbreak in the local communities to help prepare the organization for the possibility of an outbreak of COVID-19 in its workplace. It may also be valid for other health emergencies in the future.

Consider:

a) Review the following provisions and guidance:
    i. ICAO Annex 11 Attachment C - MATERIAL RELATING TO CONTINGENCY PLANNING (Annex 11 Chapter 2, 2.32 refers).
    ii. Reference Guide to EUROCONTROL Guidelines for Contingency Planning of Air Navigation Services (including Service Continuity) Edition 2.

b) promote regular teleworking across the organization for non-operational personnel. Teleworking will help the services keep operating while employees stay safe, and the reduction of on-site personnel will minimise the risk of introduction of the virus into the facility. Consider only requiring the physical presence of essential personnel.

c) The plan should address how to keep the services running even if a significant number of employees, contractors and suppliers cannot come to your place of business – either due to local restrictions on travel or because they are ill. Remain within fatigue management and rostering principles.

d) Communicate to employees and contractors about the plan and make sure they are aware of what they need to do – or not do – under the plan. Emphasize key points such as the importance of staying away from work even if they have only mild symptoms or have had to take simple medications (e.g. paracetamol, ibuprofen) which may mask the symptoms.

e) Addresses the mental health and social consequences of a case of COVID-19 in the workplace or in the community and offer information and support.

f) For small and medium-sized organisations without in-house staff health and welfare support, develop partnerships and plans with your local health and social service providers in advance of any emergency.

g) The local or national public health authority may be able to offer support and guidance in developing a plan.

h) ANSPs should ensure rostering practices (such as shift teams) are adapted to minimise potential contact between personnel should someone become ill. Ensure to consult with Employee Associations.