



# **Pandemic Operations Guidelines for Business Aviation Operators**

13 October 2020

*The IS-BAO Programme is most grateful for material herein donated by numerous organizations and operators in the true spirit of safety promotion. Thank you.*

<i>Module</i>	<b>CREW</b>
<i>Target audience</i>	
Crew	

<i>Element</i>	Preflight CREW
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<i>Brief description (Objective)</i>	
Preflight Considerations for Flight Crew.	

<p>Off duty crew:</p> <ul style="list-style-type: none"> <li>• Working in aviation, your risk is elevated. But when at home, you must also protect yourself and colleagues - you can reduce your chances of being infected or spreading Covid-19 by taking some simple precautions</li> <li>• Regularly and thoroughly clean your hands with an alcohol-based hand rub or wash them with soap and water. Washing your hands with soap and water or using alcohol-based hand rub kills viruses that may be on your hands.</li> <li>• Maintain at least 2 metres (6 feet) distance between yourself and others. When someone coughs, sneezes, or speaks they spray small liquid droplets from their nose or mouth which may contain virus. If you are too close, you can breathe in the droplets, including the Covid-19 virus if the person has the disease.</li> <li>• Avoid going to crowded places. Where people come together in crowds, you are more likely to come into close contact with someone that has Covid-19 and it is more difficult to maintain a physical distance of 2 metres (6 feet).</li> <li>• Avoid touching eyes, nose and mouth. Hands touch many surfaces and can pick up viruses. Once contaminated, hands can transfer the virus to your eyes, nose or mouth. From there, the virus can enter your body and infect you.</li> <li>• Make sure you, and the people around you, follow good respiratory hygiene. This means covering your mouth and nose with your bent elbow or tissue when you cough or sneeze. Then dispose of the used tissue immediately and wash your hands.</li> <li>• Stay home and self-isolate even with minor symptoms such as cough, headache, mild fever, until you recover. Have someone bring you supplies. If you need to leave your house, wear a mask to avoid infecting others. Avoiding contact with others will protect them from possible Covid-19 and other viruses.</li> <li>• If you have a fever, cough and difficulty breathing, seek medical attention, but call by telephone in advance if possible and follow the directions of your local health authority. National and local authorities will have the most up to date information on the situation in your area. When you can, report your illness to the Flight Operations department.</li> <li>• Keep up to date on the latest information from trusted sources, such as WHO or your local and national health authorities, and your Flight Operations department. If you are sick, do not travel via jump seat, deadheading, or as a regular passenger.</li> </ul>	
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#### Check your health before going to work:

- If you notice any symptoms that might indicate a Covid-19 infection, pay close attention. If you can, take your temperature – readings above 38° C or 100.4° F indicate a fever, but coughing, any difficulty breathing, shortness of breath, tiredness are also indicators of a Covid-19 infection. In the 48 hours before a trip, or going to work, take twice daily temperature readings.
- Be honest with yourself. Err on the side of caution and do not come to work if you are feeling unwell in any way. Inform the Flight Operations department as soon as you can.
- If you have had close contact with someone with Covid-19, you should not go into work. Think back over the last 14 days, consider any events, contacts, happenings. You may have Covid and not know it – many cases are asymptomatic.
- Avoid public transport entirely. Travel to work or the airport only in private transport where you can, avoid Uber/Lift if possible.

*US crews: If you are screened for Covid-19, standardized screening by a health care worker as part of normal operations would not constitute a reportable visit to a Health Care Professional on question 19 on the FAA medical application. Likewise, self-quarantine for failing a screening test is not a reportable event. If someone tests positive for Covid-19 and seeks treatment from a Health Care Professional, that would be a reportable event for the next FAA physical.*

#### Illness at work:

- If you become ill at work, follow the normal procedures you would in ordinary circumstances. If you suspect the illness is Covid-19, inform your manager, go home, self-isolate, seek medical treatment and testing according to national guidance.

#### Ground Staff: Dispatch and Flight Operations

- For any staff that can, the preference is to work from home.

#### For staff required on site:

- Wipe down computer and accessories with disinfecting wipe before end of your shift, and once or twice during your shift.
- If there is no need to present a handover to incoming colleagues, and continuous presence at a position is not required, shifts should be scheduled with no overlap, to decrease the number of people present and prevent any possible transmission. For example, end one shift at 1.50pm and start next at 2pm.
- If you can give a handover by phone to the incoming person, do that instead of face to face contact.
- Ensure common areas, break rooms, and lavatories are sanitized regularly. Make hand sanitizer available. Request people to disinfect their own table, counter etc. after each use. Add signage to remind about hand washing, etc.

#### Flight Crew: Pilots and Flight Attendants Fit to fly

In additional to the normal “Fit to Fly” guidelines, this is a consideration for Covid-19.

If you answer YES to any of these questions, you are not “Fit to Fly”:

- Do you have any respiratory illness symptoms, cough or fever over 38° C or 100.4° F?
- Have you experienced muscle aches or new loss of smell?
- Have you recently been exposed to anyone diagnosed with Covid-19?

License, Medical and Recency:

- It is each crew members responsibility to ensure licenses, medicals, and recency/currency requirements are up to date.

Length of time since operating (“Getting back in the game”)

- Even if you meet all the recency requirements, you might still be “stale” after an extended period on the ground. Before returning to fly, bring yourself up to speed on aircraft and operating knowledge as best you can. Consider these areas and documents:

- Operating procedures
- Aircraft Performance specifications and limits
- Normal, abnormal, and emergency procedures
- Flight Manual

Keeping aircraft and crew current and ready for operation:

- Company aircraft shall be used for crew to comply with regulatory recent flight experience. Using actual aircraft will also enhance proficiency over usage of the simulator. Additionally, using company aircraft has the benefit of avoiding risk of exposure at simulator training facilities. The chief pilot and schedulers will work with maintenance to pair pilots approaching currency expirations with aircraft that need flight cycles.
- Regardless, aircraft should be flown every 8-10 days to keep the pilots current/proficient and the aircraft ready should a pop-up trip arise.
- During proficiency/currency flights crews are encouraged to fly a full instrument procedure to maximize the instrument and landing proficiency.
- For any aircraft that haven’t flown, maintain flight ready status of fleet by scheduling 14-day ground runs, interval charges on battery systems, and maintaining database loads. The maintenance manager will work with the chief pilot and schedulers to schedule flights with pilots requiring landing currency.
- Reduce the future down time of aircraft by completing early inspections and maintenance item compliance to alleviate down time when flight demand increases.
- Training vendors, travel, and events will be scheduled to minimize unnecessary exposure. Distance learning will be considered to minimize exposure.

Chief Pilots and Flight Crew Managers:

- Consider the potential for reduced performance due to loss of routine, fear, uncertainty, stress, pressures, distraction, complacency, and physiological and psychological reasons.
- If you have a small team, make a phone call to members of your crew. Staff returning to work after a period away from the job will appreciate this, and it gives you a chance to discuss any human factor issues. Even your most seasoned professional crews will be feeling challenged in this environment.
- No crewmember should be compelled to fly unless comfortable to do so.

<i>Element</i>	Flight Planning
<i>Brief description (Objective)</i>	
Flight Planning Considerations for Flight Crew.	
<p>Check viability of the planned flight. As soon as a flight or trip is notified to dispatch, complete normal procedures for trip planning, but with the following considerations:</p> <ul style="list-style-type: none"> <li>• The usual sources of information may be outdated or unreliable. Treat each piece of information with caution and verify any critical items.</li> <li>• The best information on the current situation will come from the FBO or Ground Handler at the destination. Contact them early, email or phone, and check Airport opening hours, ATC availability, passenger and crew rules, and get confirmation that planned flight is likely to be able to operate.</li> <li>• Check Notam's carefully, both for destination, alternates, and the encompassing FIR's, for any restrictions that might affect the flight.</li> <li>• Review safety and security of the flight carefully. News media has covered Covid developments to the detriment of reporting other events. Security issues may be present. Review <a href="https://safeairspace.net">safeairspace.net</a> for overflight risk.</li> <li>• Usual permit rules still apply for international flights. Use the OPSGROUP Permit Helper (<a href="https://ops.group/permit">https://ops.group/permit</a>) for full requirements and information.</li> <li>• Conduct a thorough risk assessment as per normal protocols, but consider how Covid-19 may affect routine procedures.</li> <li>• Review OPSGROUP alerts (Daily Brief) for important changes in airspace and equipment requirements. For example, North Atlantic: Non-datalink mandate compliant aircraft may flight plan and operate between FL290-410 until June 30, European ADS-B mandate postponed to December 2020.</li> <li>• ATC facilities and Airports can close or reduce hours at very short notice, and may not be notified correctly by Notam. Note the extended night closures at US airports affecting business aviation.</li> <li>• Usual runways may be closed or unavailable, due to parking of stored aircraft.</li> <li>• Delays are more likely than normal, as each person in the supply chain is operating under unusual circumstances.</li> <li>• Some locations and countries have strict 14 day quarantine rules that also apply to aircrew. In most cases these are cancelled on departure, but ensure there are no rules that might cause a crew member to 'get stuck'.</li> <li>• Plan sensible extra fuel to allow for possibility of reroutes, ATC zero events, and airport closures or delays.</li> </ul>	
<i>Means for uniform implementation</i>	
Crew pairings and planning:	
<ul style="list-style-type: none"> <li>• All effort will be made to group crew members together (Pilots and Flight Attendants) assigned to multiple trips and type aircraft in an effort to limit the potential viral risk exposure of other crew members. Rotations of crews will be dependent on aircraft demand.</li> </ul>	

- Pilots and Cabin Crew are to be rostered as a constituted crew wherever practicable. On shorter leg trips and when feasible, fly without a Flight Attendant to minimize crew/pax exposure.
- PIC will ensure a thorough passenger safety brief is given.
- Dispatch should ensure there are adequate standby crewmembers available to relieve any crewmember in the event they are unable to fly.
- Crew members that aren't willing to fly should not be forced to. Mental capacity should be available for operational decision making, not for worrying about Covid-19.

#### Aircraft Cleaning and Preparation before flight:

- Aircraft will be subjected to deep cleaning and disinfection at least once in 24 hrs, after the last flight of the day and before the first flight of the next day. This activity may be dispensed with on non-flying days.
- Disinfection and deep cleaning will be carried out under the supervision of the maintenance agency only by using substances suitable for aviation use. Suitability of the substances will be checked against the aircrafts manufacturers documentation.

#### Dangerous Goods exemption requirements:

- Alcohol-based hand sanitizers are classified as dangerous goods and are not specifically permitted by the IATA Dangerous Goods Regulations and ICAO Technical Instructions for the Safe Transport of Dangerous goods by Air (DGR 2.5, ICAO Technical Instructions Part 1;2.2) .
- Operators that wish to add alcohol-based hand sanitizer to the items carried in galleys or installed in lavatories will need to request authorization from their civil aviation authority (State of the Operator) in accordance with the provision that is set out in Part 1;2.2.1 a) of the ICAO Technical Instructions.

#### Catering and Food preparation:

There is no evidence that Covid-19 is transmitted through food. However, erring on the side of caution, these steps will reduce any potential risk, and limit contact with passengers and catering staff.

- Flight Attendants shall ensure that all catering for passenger and crew meals is sourced through an aviation caterer as these companies are continuously inspected and well versed in safe food handling.
- Fruit bowls and shareable trays will not be offered. Passengers will be offered individually wrapped snack plates.
- Coordinate with caterer to minimize person to person contact, arrange delivery direct to the aircraft and avoid catering traveling through FBO if possible.
- Prior to receiving the catering FA's will put on PPE (if not already on) for acceptance and wipe down the exterior of the packaging with sanitizing wipes.
- Pre-packaged meals should be served on all flights (i.e. boxed lunches, plated salads, continental breakfast boxes) rather than hot meals unless preapproved by dispatch. If possible, consider bringing all trip catering from home base.
- At outstations, where no aviation catering service is available, consider catering through your hotel, "room service to go", if available. Research your options thoroughly and have plan B. Options are quickly changing.
- Shopping service by caterers will be limited. Avoid unnecessary grocery store shopping (and crowds) yourself. If you have to, keep it minimal, stick to pre-packaged, no deli counters, no salad bars etc. If you must go to the store, plan ahead, wear a mask, minimize

time in store and maintain social distancing. If you must buy produce, i.e. whole fruit, lemons, limes, please rinse well.

- Avoid washing procedures that could leave remnants of soap causing other gastrointestinal issues.
- Keep a detailed record of what came from where, if any questions arise. Avoid Uber/Lift/Uber Eats food delivery
- Minimize food preparation requirements. Spray and wipe down any grocery plastic wrapping, containers, canned goods, etc.
- Dishwashing as needed with 3 step sanitization process; paper towels instead of dish towels for drying and/or dishwashers at home base or available services at FBO.
- Paper hand towels instead of hanging cloth towels will be provided in the lavatory.
- Service Items: Use disposable plates, cups and flatware when feasible
- Use aircraft iPads in lieu of physical newspapers as it will be easier to ensure a sterile news media. Crew will ensure subscribed newspapers are downloaded prior to each flight.
- If possible, avoid using any bedding as it may not be feasible to have linens dry cleaned.

*Element*

**FBO or Executive Terminal**

*Brief description (Objective)*

FBO Operational Considerations for Flight Crew.

Call ahead:

- Call Departure, Arrival and Alternate FBOs to understand what will be available.

Useful questions to ask:

- What procedures do you have in place for the virus?
- What services do you have available, or services that are unavailable?
- Have there been any recent disruptions of service?
- Are there hotels/rental car available if needed?
- What are your operating hours, are they reduced because of Covid?
- Are our crew and pax required to wear masks during our visit?
- Are there any quarantine or other restrictions or requirements for passengers or crew arriving in location?
- How are your employees being checked for sickness?
- Who have you been using for catering?
- What nearby hotels are you recommending our crew stay at?

Advise:

- Ground Service is only to park the aircraft and then maintain distance.
- Ground Service is to not interact with passengers or baggage.
- The flight crew will handle all baggage.

From this, risk assess the FBO. If you get the impression that not much is being done, use another FBO.

At the FBO:

- Avoid contact with FBO personnel, passing catering etc. If you don't need to go inside, don't. If you do, maintain distancing.
- When possible, billing and invoices should be pre-arranged with the FBO via phone. Invoices should be emailed directly to the crew and flight scheduler to limit crews exposure in and around FBO.
- Arrange for ground transportation come directly to the aircraft.
- Give instructions to FBO that no one is to board the aircraft but passengers and crew. Institute a Rope at bottom of stairs to deter unauthorized people from coming onboard

Passengers:

These questions are presented to the passengers 24 hours before flight. If the answer to any question is YES, then the passenger must be informed they are not "Fit to Fly", and told that in an effort to avoid potential transmission of illness they could be removed from manifest:



- Do you have any respiratory illness symptoms, cough or fever over 100.4?
- Have you experienced muscle aches or new loss of smell?
- Have you recently been exposed to anyone diagnosed with Covid-19? Sales department shall ensure these questions are presented to the passengers 24 hours in advance of flight.

#### Passenger Locator Form:

- To assist in passenger contact tracing, a public health passenger locator card has been developed by the World Health Organization. This passenger locator card provides an appropriate method of rapidly collecting passenger contact information and is recommended to be used when public health authorities suspect the potential for disease transmission on board an aircraft and a subsequent need for contact tracing.
- Passengers shall fill in the Passenger Locator Form. Sales are invited to send it to passengers in advance.
- Crews need to ensure all Passenger Locator Forms are filled in properly. Forms need to be safely stored along with the Flight Pack. Crews are invited to have forms onboard in reasonable number for the upcoming flights.

#### Communication to Passengers before flight:

Passengers should be made aware before flight of the precautions we are taking, and the changes to normal procedures.

#### Flight Operations Covid-19 Guidelines & Protocol for Passengers to read (sample)

##### *Dear passenger:*

*The health and well-being of you: our passenger and guest, remain our primary priority and as such, we would ask you to read, understand, and acknowledge the guidelines below.*

*If you have experienced a fever of 38°C /100.4 °F or higher, have been diagnosed with Covid-19, or have a combination of cough, chills, sore throat, shortness of breath, headache or other cold/flu-like symptoms indicative of Covid-19 within 48 hours of your flight, you should stay home; you will not be permitted to fly. Temperature checks will be obtained upon arrival to the airport and before boarding the aircraft. If your temperature is at or above 38°C /100.4 °F, you will not be permitted to fly.*

*If you have traveled to any international destinations or US domestic 'hot spot' states within 14 days of your flight or had close contact with anyone who has traveled to these areas, you will not be permitted to fly. If you had close contact with or cared for someone diagnosed with Covid-19 or flu-like symptoms within the last 14 days prior to flight, you will not be permitted to fly.*

*It is mandatory for all passengers to wear their own masks at all times, unless the pilot instructs otherwise for identification purposes. Flight Operations will not be issuing masks to passengers.*

*Please restrict your baggage to one carry on item and one piece of hold luggage per passenger. Contact us to enquire about additional luggage.*

*Please wait in your vehicle until 15 minutes before flight. Keep your luggage and/or carry on with you at all times prior to flight – you will place your luggage to the side of the aircraft stairs before boarding. Maintain 6 feet physical distancing from others at all times.*

#### Arriving at work:

- On arrival, the first action should be to visit a bathroom to wash your hands thoroughly.
- Each crew member should check their own temperature with the company provided thermometer at report time. As above, readings above 38° C or 100.4° F indicate a fever.

#### Briefings:

- Pre-Flight Briefings are safety critical and should not be skipped or shortened. The dispatcher should inform the flight crew of any special Covid-19 related information or

procedures, but only in the order of criticality amongst other essential information like weather, flight route, fuel planning etc.

- Crews should include a quick review and discussion of Covid-19 protocols as part of their pre-flight briefing to ensure all questions and concerns have been addressed prior to flight.
- Especially for longer trips, consider setting up a WhatsApp group for your flight. This will allow you easy contact with all crew members during the trip, at the destination and overnight if one is scheduled, and if also on board the aircraft if Wi-Fi is available.

Boarding:

- Only one crew member will be responsible to greet passengers and have direct contact during boarding.
- Captain or designee will check in passengers following social distancing protocol.
- ID check and Flight Briefing will be conducted prior to boarding aircraft.
- When passengers arrive at the aircraft, the flight attendant will greet the passenger in the cabin and direct them to their seats to keep appropriate social distancing.
- Checking ID should be conducted using protective gloves. If gloves are not available, passengers can hold ID for crew member or flight operations team to visually review.
- A cart will be provided for passengers upon their arrival to our facility for them to secure their own luggage. The handling of passenger luggage will be kept to a minimum with the intent to have them maintain responsibility of their own luggage and personal items.
- Flight Crew, Line Service or Maintenance personnel will be required to wear gloves while handling the baggage, as necessary.
- Crewmembers should handle all baggage and place it in the aircraft first, prior to passengers boarding, to limit transfer contact with FBO employees. Wash hands or use hand sanitizer when complete.
- Passenger numbers on board are being restricted to allow for distancing. Where passenger load and any weight/balance limitations allow, passengers should be encouraged to move to empty seats to increase physical distance between them.

*Element*

**Enroute**

*Brief description (Objective)*

Enroute considerations for Flight Crew

Don't Let CV-19 become to distraction:

There's a lot to consider with Covid, but the normal operation continues to present the same level of risks as before. A good mental approach is to forget about Covid for a moment, and think of your flight as a routine, normal flight: Weather, Aircraft Performance, Human Factors, Flight Planning, Alternate planning, Terrain, Fuel decisions, etc. all present risk regardless of any Covid considerations.

**Inflight considerations**

Specific areas where Covid-19 is impacting operational and flight decisions:

- Short notice ATC facility closures impacting airspace, approach units, and towers.
- Most airport opening hours are reduced, and information in Jeppesen manuals, company lists, and so on may be out of date or incorrect.
- Delays are more likely. The supply chain and airport process has many parts, and staff illness and unforeseen issues can pop up.
- Diversions and U-turns related to Covid-19 situations have been occurring worldwide. Increased awareness of enroute alternates, and double checking their status and availability is important. Many airports that are common diversion options have specifically requested not to be filed as an alternate.
- If you do divert there is a strong preference on returning to base, more than usual. Diverting to an enroute alternate presents additional risk and potential for an AOG situation.
- Contingency fuel: Err even further on the side of caution than normal. Plan a reasonable amount of extra fuel to allow for unforeseen reroutes, ATC zero events, and airport closures.

**Aircraft Setup:**

- No person other than essential crew, passengers and engineers are to be allowed on board the aircraft. Nobody is to enter the aircraft without the explicit permission of the Captain, or delegated authority through other Flight Crew members.
- It is possible that the aircraft may have been in extended storage prior to flight. Cabin crew should conduct thorough pre-flight cabin checks and report any defects through the usual reporting processes for rectification. Where necessary, the Minimum Equipment Lists should be checked to identify whether a defective or missing item results in operational limitations.
- There is an added risk of defective emergency equipment if the aircraft has been used for cargo operations and is returning to passenger mode for the first time on this flight. Additionally, check the cabin for any damage especially to life vests, seat belts, tray tables, IFE components, arm rests, seat cushions.
- The cabin air system should be set to allow maximum airflow and ventilation in flight, though consider the flow pattern as some aircraft may be better at a reduced rate. Pre and post flight, the aircraft doors should be left open for as long as possible outside and inside the hangar to allow the aircraft to ventilate.

- On aircraft with multiple lavatories, one lavatory will be blocked and dedicated for crew use to ensure items remain available for hand washing, as well as limiting the possibility of contamination from infected persons.
- Cabin Crew – on board should wear only a Medical Face mask, at all times and replaced regularly at intervals not exceeding 4 hours. For flights exceeding 4 hours, proper disposal of disposable face masks must be applied.
- When handling food and drinks, Cabin Crew should wear gloves.
- During other phases of flight, gloves, goggles, and other PPE is not recommended.

#### Cockpit Crew

- Should wear only a Medical Face mask while outside the cockpit area. PPE should not be worn in the cockpit.
- Medical Face masks are not a substitution for physical distancing, nor is there any certainty of their effectiveness in preventing transmission of Covid-19 in asymptomatic persons. The most important and effective method of prevention is regular hand washing, avoiding touching face, and physical distancing.
- PPE shall not be mandated when flight safety or human performance may be compromised.
- Wearing of masks can interfere with clear communications with ATC and other crew members
- Masks can be a hindrance when quick donning of oxygen masks is required
- Masks can create an unsettling atmosphere in the cockpit and be distracting.
- If crew must use lavatory inflight, use mask when entering cabin, and wash hands thoroughly before returning to cockpit. Use hand sanitizer to clean and disinfect hands before meals.
- If carrying out any cockpit cleaning beyond simple use of Sani-Com or similar wet wipes, see the Aircraft Cleaning section for specifics of substances allowed to be used. Note that Clorox Wipes, Ethanol, and Sodium Hypochlorite must not be used.
- Cockpit crew should reduce their entry/exit of the cockpit and use the intercom system for communication whenever they can, to avoid close contact.
- Ideally, crews should use personal individual headsets. If not provided, then cockpit headsets should be thoroughly wiped down before and after use.
- Flight deck seat swapping will not occur during the day. Seat swapping is permitted on a multi-day trip.
- All masks and face coverings should be removed during an emergency situation which requires the use of oxygen or protective breathing equipment for firefighting.

#### Food and Beverage Preparation:

- FA's should notify other crew members prior to and at the conclusion of any food preparation in order to minimize congestion in the galley during this time.
- Crewmembers should eat at separate times in order to limit exposure while not wearing a mask.
- Reusable dishware poses the greatest risk, so the aircraft will be stocked with acceptable disposable cups, plates, napkins, and utensils for meal service to avoid the risk of transmission through reusable dishware.
- Flight attendants should use disposable gloves in addition to masks throughout flight for all food service-related activities.

- Crews should not purchase/supply newspapers for flights. Recommend passengers bring their own reading material, newspapers, magazines etc. For aircraft that have iPads with newspaper subscriptions for passenger use, newspapers should be pre-loaded.
- Elimination of self-serve items onboard all aircraft – fruit basket, candy basket and snack basket. Some items will be stored in the galley and available per request.
- Launder/dry clean linens/blankets following flights. Distribute blankets as needed versus displayed in the cabin.

Crew Rest Compartments:

- Where crew rest compartments are installed, and bedding items are provided for flight crew use, pillows and bedding should be changed after each person uses them.

Illness in Flight, Cabin Crew actions:

- If a passenger develops symptoms of acute respiratory infection or shows signs or symptoms compatible with a communicable disease, including Covid-19, as documented in the Aircraft General Declaration (the IHR Annex 8, ICAO Annex 9, Appendix 1), efforts should be made to minimize contact of passengers and cabin crew with the ill person.
- Flight attendant must notify Flight deck of any passengers or crewmembers exhibiting symptoms or indications of a communicable disease.
- Separate the ill person from the other passengers by minimum of 1 meter (usually about two seats left empty in all directions, depending on the cabin design) from the seat occupied by the suspected case. Where possible this should be done by moving other passengers away.
- Ask the ill person to wear a medical mask and practice respiratory hygiene when coughing or sneezing. If the medical mask cannot be tolerated by the ill person, provide tissues to cover mouth; discard tissue immediately into a biohazard disposal waste bag carried in the Universal Precaution Kit. If no biohazard disposal waste bag is available, place it into an intact plastic bag, seal it, and consider it “biohazard” waste; wash hands with soap and water or alcohol-based hand rub.
- Designate one crew member to serve the ill person, preferably a crew member trained in infection prevention and control measures and not necessarily the crew member that has already been attending to this traveller.
- If possible, designate one toilet for use only by the ill person.
- When attending to an ill traveller coming from an area with local or community Covid-19 virus transmission who displays fever, persistent cough, or difficulty breathing, always use personal protective equipment (PPE)
- Wear disposable gloves when tending to an ill traveller or touching body fluids or potentially contaminated objects and surfaces. Remove gloves carefully to avoid contaminating yourself, dispose of them and other disposable items that had contact with ill person in a biohazard bag and wash hands with soap and water or alcohol-based hand rub.
- Crew should make sure not to touch other service utensils or cutlery after tending to an ill traveller.
- Crew members should be provided with instructions for communicating with an ill person suspected of Covid-19 (see Annex 1). It is also important for crew members to be aware that it is ok to touch or comfort a suspected or a confirmed Covid-19 case on the condition that they are wearing appropriate PPE

#### Illness in Flight, Cabin Crew actions:

- Pilot in Command must immediately notify ATC – advise departure, planned destination, ETA, POB, Number of cases, nature of health risk. Dispatch/OCC, via Satcom if available, or relay message via ARINC or ATC.
- US operators: ATC will notify the Domestic Events Network (DEN) of the report, using the code “...requests a CDC consult.” The DEN will send the report to CDC’s Emergency Operations Center (EOC) and the EOC will notify the CDC Quarantine Station with jurisdiction for the arrival airport.
- In case of any doubt or comms issue, Dispatch or Crew can contact the CDC EOC on +1 770 488 7100 who will then notify the appropriate CDC Quarantine Station.
- ICAO Doc 4444 guidance – extract 16.6 NOTIFICATION OF SUSPECTED COMMUNICABLE DISEASES, OR OTHER PUBLIC HEALTH RISK, ON BOARD AN AIRCRAFT
- 16.6.1 The flight crew of an en-route aircraft shall, upon identifying a suspected case(s) of communicable disease, or other public health risk, on board the aircraft, promptly notify the ATS unit with which the pilot is communicating, the information listed below: a) aircraft identification; b) departure aerodrome; c) destination aerodrome; d) estimated time of arrival; e) number of persons on board; f) number of suspected case(s) on board; and g) nature of the public health risk, if known.
- 16.6.2 The ATS unit, upon receipt of information from a pilot regarding suspected case(s) of communicable disease, or other public health risk, on board the aircraft, shall forward a message as soon as possible to the ATS unit serving the destination/departure, unless procedures exist to notify the appropriate authority designated by the State and the aircraft operator or its designated representative.

#### Further actions:

- The Captain should consider an immediate return to base (if possible, considering quarantine stations) or diversion.
- The appropriate Passenger Location Forms and a Gen Dec should be completed if applicable.
- If the aircraft has a medical subscription (eg. MedAire), make a call and discuss the situation.

#### Dispatch/Flight Following:

- Advise: Flight Operations Manager, Safety Manager, Scheduling and Maintenance.
- Assist: Give whatever help is requested by the crew.
- Consider ongoing effects of crew and aircraft quarantine and alternative options for crew and aircraft.
- Aircraft may have to divert depending on the country it is in. Consider fuel situation, run a plan to new destination if required.
- Inform arrival airport FBO/ground handling that aircraft will be quarantined on arrival (if not diverting).
- If the illness is a crew member, begin contact tracing (crew flights and contacts in last 14 days as far as known). Advise scheduling.

#### Disembarking Ill Person(s):

- Symptomatic travellers should disembark the aircraft according to instructions from the airport health authority to minimise the risk of contaminating other passengers, crew members, and ground personnel.
- Symptomatic travellers will be assessed for their condition and exposure at the designated facility of the airport and, if they fulfil the definition of a suspected case, will be transferred to a designated health care facility.
- Management of contacts will take place in accordance with instructions from the local public health authority.
- The airport health authority should rapidly update the airline on the outcome of examinations and if further actions must be taken

#### Crew Exposure

A contact in an aircraft can be identified as follows:

- Any person sitting within 2 metres of the suspected case
- Any travel companions or persons providing care who had close contact with the suspected case
- Any cabin crew member designated to look after the ill traveller(s), and crew members serving in the section of the aircraft where the suspected case(s) was seated.
- Cockpit crew are not concerned if they have not circulated into the cabin and come close to the ill traveller(s).
- If the severity of the symptoms or numerous movements of the case(s) indicate more extensive exposure, passengers seated in the entire section or, depending on aircraft design and assessment on arrival by airport health authorities, all passengers on the aircraft may be considered contacts. Refer to the full WHO guidance for further.
- Where possible, after return to home base, but no later than 48 hours from the first contact with the suspected passenger, the respective crew member(s) should be asked to take appropriate self-isolation measures pending the result of the passenger's test.
- If the test is positive, the respective crew member(s) should be placed in quarantine for 14 days from the last contact with the confirmed positive passenger, unless otherwise specified by the local public health authorities. If the test is negative, they may resume flying duties.

*Element*  
Arrival

*Brief description (Objective)*

Arrival considerations for Flight Crew

Disembarking

- Once brakes are set, confirm that permission is in place to open the aircraft door. Especially internationally, there may be local procedures and it's best to ensure passengers remain seated until this is confirmed. Do not open the aircraft door until positive signal from ground staff.
- Once disembarkation has been approved, it is important to avoid the usual "everyone up at once" scenario. Use this announcement: *PA/Cabin announcement: "Please remain in our seats until we have received clearance to open the aircraft doors, at which point I will make another announcement. We will be disembarking in sections, row by row, starting at the front of the aircraft. Please wait until the row in front of you is fully empty before standing up to retrieve your luggage. Thank you."*
- As passengers exit the aircraft, they should place all used gloves and masks in the designated biohazard bag and use a hand wash/sanitizer. The flight crew will exit the aircraft after all passengers have deplaned, they will remove their gloves and discard them in biohazard bags and wash their hands with soap and water.
- The luggage of passengers will be handled by the loaders. FAs will remove all beverages, eatables and other items discarded by the passengers from the aircraft and thereafter dispose of their gloves in similar manner.
- Disposable items (hand towels, gloves, masks tissues) should be put in the biohazard bags and disposed of. Trash bins will be cleaned and biohazard bags removed from the aircraft.

Interim Aircraft Cleaning

- At interim destinations away from home base crew shall don PPE and conduct light cleaning of the aircraft with 70/30 isopropyl solution.
- This cleaning should include a wipe down of all galley surfaces, paying attention to galley latches and door handles. A wipe down of seats, seated areas, and tables at all seat stations.
- Crewmembers shall wipe down the visible surfaces in the lavatory.
- Crewmembers shall wipe down cockpit (to include yokes, CCD's, Audio Control Panels, Overhead panel, FMS CDU's, Thrust levers, and MCP). It is recommended to split duties between cockpit and cabin.
- All used gloves and cleaning cloths are to be discarded.

Walkaround

- Only one flight or technical crew member should be allowed to disembark the aircraft for an external inspection, refueling, etc. In such case direct contact with the ground crew of an airport situated in a high risk area should be avoided.
- To the greatest extent possible, no ground personnel should be allowed to embark the aircraft except for remediation of technical problems or other ground staff whose presence on board is essential for performing their tasks. When such personnel are on board they



will be required to wear appropriate personal protective equipment (PPE) such as masks and gloves before they enter.

- Flight Attendants should sanitize their hands at the entrance of the aircraft. Additionally, crew members should take all measures to minimize direct contact including wearing PPE such as face mask and gloves.

#### Cabin Cleaning

- The aircraft will be cleaned and disinfected, trash bins will be cleaned and disinfected and used PPE disposed of in biohazard bags when the aircraft is secured at the end of the day. Operations department will coordinate the cleaning and disinfection of aircraft during outstation halts with the maintenance agency or the outstation handler/service provider.
- The cleaning crew should protect themselves with appropriate personal protective equipment, such as gloves, face masks and protective clothing, according to standard operating procedure requirements. Face masks should be replaced regularly in accordance with the producers' indications (e.g. most surgical masks lose their efficiency after 4 hours of use).
- Use different cleaning utensils (e.g. the cloths and mops) used in each area,
- potentially using color coding, in order to reduce cross-contamination.
- Avoid any cleaning detrimental to aircraft components, rub the surfaces with disinfectant for adequate contact time (usually 3 minutes) and remove it immediately.
- Spray the floor from front to back before disinfection and then spray again in opposite direction.
- Disinfect the key areas as noted below, begin at the top and proceed downward progressively working from clean to dirty areas:
  - Aisle - Ceiling, overhead bins, reading lights, air outlets, sidewall panels, windows, seats (tray tables, armrests, passenger control units, and 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, door handles, locking device, and, if installed, ashtrays).
  - Galley - Ceiling, ovens, water boilers, coffee makers, galley facilities, lockers/drawers, waste bins.
  - Cockpit - For aircraft where the cockpit is separated from the passenger cabin, preventive disinfection should be considered only when the flight crew had a longer layover resulting in the crew traveling outside of the airport restricted area (e.g. travel to the hotel for a rest period) in the high risk areas. Otherwise cockpit should be subject to routine cleaning. For aircraft where rigid separation between the cockpit and the passenger cabin is not available the frequency of preventive disinfection of the cockpit should be the same as for the passenger area.

#### Cleaning after infection

- For suspected cases, ensure affected seats and adjacent rows cleaning is immediately performed with appropriate disinfectant.
- For confirmed cases, ensure aircraft cabin deep cleaning is immediately performed with appropriate disinfectant. If no disinfectant available, affected seats and adjacent rows shall be isolated. Any contaminated material should be disposed into biohazard bags.
- Ensure cabin airflow (APU) during pax offload, ventilate 5 min with door(s) open. Remove bleed air / ventilation, allow cabin air to settle, commence with cleaning.

- Dispose of or quarantine items that cannot be cleaned, □ blankets, pillows, emergency briefing cards.

#### Layover

- Where possible, avoid overnight layovers. Aircraft should be flown back to base as an empty leg.
- Private ground transport should be arranged to transfer crews to hotels, that allows crews to maintain the recommended 6 feet (2 metre) distance from others.
- Crews should be booked into hotels that are in close proximity to the airport.
- Ensure that the hotel rooms are sanitized in advance of the crews' arrival.
- Crews should be provided sufficient quantities of alcohol-based hand sanitizer containing at least 60% alcohol to crewmembers for their personal use.
- Ground transportation vendors should be queried on their sterilization procedures for their vehicles, and vendors who cannot provide this information should be avoided.
- Ride share services (Uber, Lyft) and on-demand taxi services should be avoided. If vetted ground transportation is unavailable, the next preference is that flight crews use rental cars and disinfect (wipe down) vehicles prior to use.
- Ensure crew and passenger hotels are full-service and have established CDC cleaning protocols. Hotel vendors should be queried on their cleaning and disinfecting procedures for their facilities, and vendors who cannot provide this information should be avoided. Locations with onsite restaurant or room service preferred.
- In countries or locations where widespread community transmission of Covid-19 is present, crews should self-isolate in their hotel rooms, avoid any trips away from the hotel, dine in-room using the hotel room service, avoid congregating with other crew members during the stay, and use masks when traveling to and from the airport.
- In countries or locations where there are only small numbers of Covid-19 cases, crews should still limit travel away from the hotel to one essential trip per day to obtain supermarket food or medicine, and one exercise excursion; remembering that the mitigations are both for crew safety and the safety of the local population considering that the crew themselves are a high-risk potential carrier of the virus.

#### Hotel Considerations

- Can the hotel provide in-room meals including breakfast, lunch and dinner?
- Can the hotel meet individual dietary requirements?
- Does the hotel have an outdoor space where aircrew can exercise?
- Can the hotel provide a service to purchase essential items (if aircrew are not allowed to go to supermarkets)?
- Can the hotel provide a laundry service for aircrew, as well as laundering of linen and towels?
- Can the hotel provide Wi-fi to all aircrew rooms?
- Is the hotel reasonably close to a pharmacy or good access for collecting medication on behalf of the aircrew?
- - Is the hotel within an hour of a hospital?

