

# **Preventing the Spread of Coronavirus Disease 2019**

## **(COVID-19) Guideline for Airlines**

### **Tenth Edition**

In order to thoroughly implement the decisions and arrangements made by the CPC Central Committee and the State Council, and act upon the requirements of the *General Plan for COVID-19 Management as Category B Infectious Disease* (Joint Mechanism ZF [2022] No.144) issued by the Joint Prevention and Control Mechanism of the State Council in Response to COVID-19 Infection, with the aim of having a good command of the new situation and tasks of current pandemic response, and guiding airlines to do a good job in the COVID-19 prevention and control after the release of the above General Plan, this Tenth Edition of the *Preventing the Spread of Coronavirus Disease 2019 (COVID-19) Guideline for Airlines* is developed, after comprehensive evaluation of the virus mutations, the new situation of COVID-19 prevention and control, and the need of recovery and development of the civil aviation industry, taking into full consideration of the previous experience and effective practices in pandemic response made by the industry.

#### **1. Prevention and Control Measures for On-duty Crew**

##### **1.1 COVID-19 Vaccination**

The crew members who have no vaccination contraindications and meet the conditions necessary for inoculation shall receive booster doses of COVID-19 vaccines in a timely manner to ensure all crew members eligible for vaccination have been inoculated. Crew members are encouraged to receive the second dose of the booster shot on the basis of the first booster dose.

##### **1.2 Personal Protection of Crew Members**

Cabin crew members are recommended to wear N95/KN95 masks during the flight and wear gloves (disposable medical rubber gloves or nitrile gloves) when providing cabin services. Flight crew members are recommended to wear disposable medical surgical masks during the flight, and may not wear mask while operating in the cockpit for the purpose of operation safety.

Masks should be close to the faces, covering the noses and mouths completely. Crew members should not remove the masks if it is not necessary. They should change masks at least once every 4 hours (or whenever necessary). Once dampened or contaminated by secretions, facial masks should be replaced immediately with new

ones, and hands should be cleaned and sanitized both before and after the replacement.

### **1.3 Handling of Medical Emergencies for On-duty Crew**

If any crew member shows such symptoms as fever or respiratory infections during the duty hours, he/she should cease performing duties as long as flight safety is not compromised, wear N95/KN95 masks during the whole flight, reduce close contact with other crew members and take a rest in relatively separated areas to avoid cross infection.

## **2. In-flight Prevention and Control Measures.**

### **2.1 Catering Service**

Cabin crew members should disinfect hands before and after food preparation and food service.

### **2.2 Use and Disinfection of Lavatory**

Guidance should be provided for passengers on using lavatory in an orderly way and keeping social distance while waiting, so as to avoid gathering outside the lavatory. Ventilation of the lavatory should be enhanced. Lavatories should be disinfected every 2 hours (or after being used 10 times). An exclusive lavatory for crew members should be assigned when conditions allow, otherwise the lavatory should be disinfected every time before use by crew members.

### **2.3 Treatment of Garbage on Board**

Garbage on board (including kitchen wastes on board) should be well classified, recycled and cleaned to ensure that the garbage is treated on a daily basis. Cleaning personnel on board should wear N95/KN95 masks and disposable medical rubber gloves or nitrile gloves. He/She should wear disposable protective clothing when cleaning such wastes as secretions, excretions or vomit. The garbage should be disinfected before and after being collected and should be treated innocuously.

### **2.4 In-flight Broadcast**

Crew members should broadcast messages to passengers to remind them of wearing masks with no breathing valves during the whole flight and not removing their masks if not necessary. Passengers should reduce unnecessary movement in the cabin, and must not change seats except under special circumstances. Passengers should inform the crew members of their sickness if they feel unwell. Passengers should clean and disinfect hands in a timely way before meals or after touching surface of objects in the

cabin, in particular those frequently touched ones such as armrests and door handles of lavatory, and avoid touching noses, mouths and eyes with unsanitized hands.

## **2.5 Handling of In-flight Medical Emergencies**

If any passenger on board is found with fever, respiratory infections or other symptoms, they should be required to wear N95/KN95 masks during the whole flight and should be seated in relatively separate areas when conditions allow, so as to reduce unnecessary contact with others and avoid cross infection. Secretions, excretions or vomit should be disposed of in accordance with the relevant requirements of Appendix 3 to AC-121-102R1: Guideline for the Use of Universal Precaution Kit.

## **3. Cleaning and Disinfection of Aircraft**

### **3.1 Routine Cleaning and Preventative disinfection of Aircraft**

Aircraft should be cleaned during a stopover, and a thorough cleaning should be carried out upon the completion of the flight. Cleaning of lavatories and galleys should be prioritized if there is limited time for the stopover. Please refer to Attachment for detailed cleaning requirements. If there are passengers with fever, respiratory infections or other symptoms or contaminants of a contagious nature (such as secretions, excretions or vomit) on board, preventive disinfection of the relevant areas (cockpit or cabin) should be carried out upon the completion of the flight (please refer to the appendix for the operating procedures and the choice of disinfectants). If an assessment of the efficacy of aircraft environment cleaning is necessary, it could be done by using fluorescence labeling to conduct quantitative analysis into the efficacy of the cleaning of frequently-touched surfaces according to requirements of the health authorities. Details can be found in *Guidelines for Cleaning and Disinfecting Environmental Surfaces in Healthcare Facilities* (WS/T 512-2016).

### **3.2 Replacement of High Efficiency Particulate Air (HEPA) Filters**

Cabin and cargo hold doors should be opened for ventilation before replacement work is performed, and the time for natural ventilation should be extended. When replacing HEPA filters, maintenance staff should follow the requirements contained in the manufacturers' manual, and wear KN95/N95 masks and disposable medical rubber gloves or nitrile gloves. Upon the completion of the maintenance task, the maintenance staff should clean and sanitize their hands. The used HEPA should be placed in a double-layered plastic bag and sealed. The external surface of the bag should be disinfected before being treated innocuously.

## **4. Aircrew Health Management**

Airlines should pay attention to the epidemic situation from origin to destination, carry out dynamic health management of and provide service support for aircrew, ensure personnel backup in advance, establish a rotation system, and monitor and report the infection situation of crew members in order to mitigate the impact of infection on flight operations. On-duty crew members should monitor their health condition on a daily basis. If any crew member shows such symptoms as fever, dry cough, fatigue or sore throat, he/she should report the symptoms immediately and take COVID-19 antigen swabs or COVID-19 tests when necessary. If the test result is positive, he/she should carry out careful self-health management and should not serve on-duty.

## **5. Mental Health of Front-line Aviation Staff**

Airlines should provide mental health care, and professional mental health services in various forms for front-line staff on the basis of the COVID-19 situation to assist them in maintaining rational understanding and shaping a good mental state. Airlines should pay close attention to the infection of front-line staff and their families, provide them with care and support in the first place, help them get through difficulties, and offer psychological intervention services in a timely manner if necessary.

**Attachment**

**Aircraft Cleaning**

Area	Items to Be Cleaned	Stopover Duration		Post-flight
		< 60min	> 60min	
<b>Flight Deck</b>	Clean tray tables and cup holders	If necessary	√	√
	Clean lockers and racks	If necessary	√	√
	Wipe pilot seats	If necessary	√	√
	Clean floor/vacuum carpet	If necessary	If necessary	√
	Clean windscreen	If necessary	If necessary	√
	Clean doors and wall panels	If necessary	If necessary	√
	Empty ashtrays (if installed)	√	√	√
<b>Passenger Cabin</b>	Dispose of wastes in closets	√	√	√
	Dispose of litter and newspapers	√	√	√
	Dispose of wastes in seat pockets	√	√	√
	Clean tray tables	If necessary	If necessary	√
	Clean cabin crew tray tables	If necessary	If necessary	√
	Clean interphone mic	If necessary		√
	Clean cabin windows			√
	Vacuum cloth-covered seats		If necessary	√
	Wipe leather-covered seats		If necessary	√
	Clean outside surface of the overhead bin and its latch	If necessary	If necessary	√
	Dispose of wastes in overhead bins		If necessary	√

	Clean floors			√
	Vacuum carpet		If necessary	√
	Replace pillows, headrest covers and blankets			√
	Clean seat-back screens and control panels			√
	Clean seats and armrests	If necessary	If necessary	√
	Clean and vacuum passenger seat cushions			√
	Remove carpet stains			√
	Clean seat rails, air outlets, ceiling, side wall panels, lockers, bulkheads and magazine racks			√
<b>Galleys</b>	Empty waste bins and waste bags	√	√	√
	Clean bulkheads, trolley brake blocks, ceiling and ventilation grille (air-conditioning outlets)	If necessary	If necessary	√
	Clean faucets and sink countertop	If necessary	√	√
	Clean retractable countertop	If necessary	√	√
	Clean ovens both inside and outside	If necessary	If necessary	√
	Clean galley trolleys	If necessary	√	√
	Clean floors	If necessary	If necessary	√
<b>Lavatories</b>	Empty waste bins and waste bags	√	√	√
	Clean toilet	√	√	√
	Clean sink, faucet and countertop	√	√	√
	Clean mirrors	√	√	√
	Clean baby care table	√	√	√

	Clean wall panels, door surfaces both outside and inside, handrails and latches	√	√	√
	Clean floors	√	√	√
	Replenish hand sanitizer	If necessary	√	√
	Replenish toiletry items	If necessary	√	√
<b>Crew Rest Areas</b>	Remove waste in lockers		√	√
	Remove litter/newspapers		√	√
	Remove bed sheets, and other items		√	√
	Clean pillows and blankets		√	√
	Clean control panels (reading lights and air conditioning) and interphone mic		√	√
	Vacuum carpet			If necessary
	Clean cabin crew seats		√	√
	Clean the surface of the inner layer of cabin window glass		√	√

Note: Dedicated rags and mops shall be used respectively for areas like aisle, toilet and gallery, and marked with different colors. Cleaning tools and articles shall not be used on a mixed basis among aircraft, and could only be used again after disinfection.

## **Appendix**

### **Recommended Procedures for Aircraft Preventative Disinfection**

#### **1. Operating Procedures for Preventative Disinfection of Cockpit**

1.1 Cockpit doors and cockpit windows should be opened to ensure ventilation and reduce the risk of using alcohol-based disinfection products.

1.2 Frequently touched surfaces (such as joystick, microphone, headset, cockpit panel, tray tables and cup holders) should be wiped with disinfectant for disinfection. During disinfection, it should avoid formatting water droplets and prevent leakage.

1.3 Disinfection should be made in the following order: from upper places to lower places, from outside to the inside, and from heavily contaminated areas to lowly contaminated areas, with repeated round-trip wiping being avoided.

1.4 During disinfection, after a period of reaction, a regular cleaning process should be performed to avoid corrosive effect on surfaces due to long time exposure to the disinfectant.

1.5 A required inspection or review mechanism should be established in order to prevent mis-operation of switches during disinfection.

1.6 Cockpit cleaning and disinfection methods and relevant products should meet the requirements of aircraft manufacturer or appropriate airworthiness standards so as to avoid damage to aircraft structure and its equipment. Product concentration should be determined in line with product instructions

#### **2. Operating Procedures for Preventative Disinfection in Cabin**

2.1 Separate rags and mops should be used for aisle, lavatory and galley, and be marked with different colors. Designated personnel should be assigned to each of the aforementioned areas where conditions allow.

2.2 During disinfection, surfaces should be rubbed using rags soaked with disinfectant, and after a period of reaction, a regular cleaning process should be performed to avoid corrosive effect on cabin component due to long time exposure to the disinfectant.

2.3 Disinfectant should be sprayed onto cabin floor from the front to the back, followed by disinfection of key areas. Once cabin disinfection is finished, disinfectant should be sprayed onto cabin floor again from the back to the front.



2.4 Key areas should be disinfected in the following order:

2.4.1 Aisle: from outside to the inside and from upper places to lower places, overhead bins, reading lights, air outlets, side wall panels, windows, seats (tray tables, armrests, passenger control units, and decorative panels), lockers/closets, bulkheads, magazine racks and cabin crew seats.

2.4.2 Lavatory: from the lowly contaminated areas to heavily contaminated areas, disinfection of high-frequency contact surfaces should be progressed as follows: latches, door surfaces and doorknobs, sinks, toilet bowls and waste bins.

2.4.3 Galley: from upper places to lower places and from outside to the inside, ovens, water boilers, coffee makers, galley itself, lockers/drawers, and waste bins.

## 2.5 Disinfectants

Aircraft cleaning and disinfectant products should be issued with an airworthiness approval to avoid damage to aircraft components. As far as preventative disinfection is concerned, it is recommended to use quaternary ammonium salt or chlorine-containing disinfectant or other disinfectants against COVID-19 meeting airworthiness requirements. Liquid concentration should be in line with what's specified in the user instructions of the product. Effective concentration of chlorine should be within the range of 250mg/L-500mg/L, with a reaction time of 10 minutes.