

Use of Masks in the Cockpit

NOTE

This paper is an update to, and supersedes, 20SAB12, of the same name.

Regarding the prevention of transmission of COVID-19, flight crews are reminded that signs or symptoms of COVID-19 or close contact with a person suspected of having or testing positive for COVID-19 render them unfit for duty until considered fit by the operator and public health authority (e.g. following a suitable negative test). The operator should also have a proper sick-leave policy and procedure so that there is no additional burden for pilots to call in sick.

The use of face masks is currently recommended or compulsory in many countries, especially if social distancing is not possible. Many occupational health authorities, such as NIOSH¹, require mask use if safe distances cannot be maintained while working in a small and closed environment.

Proper mask wearing is effective mitigation against COVID-19. It has been estimated that social distancing of 3m alone without masks leads to a 90% risk of infection after a few minutes. If only the non-infected person wears a surgical mask with an unmasked infectious person speaking at a distance of 1.5 m, the risk of infection reaches 90% after 30 minutes, and with an FFP2 mask, it remains at about 20% even after 1 hour. When both wear a surgical mask, while the infectious is speaking, the very conservative upper bound remains below 30% after 1 hour, but, when both wear a proper-fitting FFP2 mask, it is 0.4%.²

Most of the authorities and airlines require passengers and cabin crew to use face masks. In the recommendations of ICAO, CAPSCA, EASA and IATA, the use of face masks in the cockpit while operating the aircraft should be according to an operator's risk assessment. EASA/ECDC guidance states that fully vaccinated flight crews do not need

¹ The National Institute for Occupational Safety and Health, <https://www.cdc.gov/niosh/index.htm>

² <https://doi.org/10.1073/pnas.2110117118>

to wear a face mask in the flight compartment. However, these recommendations were given before the emergence of the omicron variant.

When an operator makes a decision on mask use in the cockpit, it should involve a safety risk assessment. IFALPA's position is that flight crew should have the option to remove their mask in the cockpit when the door is closed in the interest of flight safety. If masks are used, it is of utmost importance that they are worn properly during entire flight. If the masks are removed (e.g. for approach), the time without masks may counteract the benefits of wearing masks the entire rest of the time.

The reason for wearing surgical or medical masks in the cockpit is mainly to prevent transmission of COVID-19 from the mask wearer to the other pilot(s) and, to a lesser extent, protect the mask wearer from inhaling potentially infected respiratory droplets.

Respirators (e.g. FFP 2 masks) have the capacity to also protect the wearer. Infected people appear to be most infectious just before they develop symptoms (namely 2 days before they develop symptoms) and early in their illness, but asymptomatic people can also spread the disease. Thus, a risk of infection remains even if all symptomatic pilots or pilots who have had close contact with a person suspected of having or testing positive for COVID-19 stay at home.

The World Health Organization recommends the use of a three-layer fabric mask or a medical-grade mask.³

OPERATOR RISK ASSESSMENT

The risk assessment should weigh the risk of transmission against risks to flight safety. Operator safety risk assessments should include, but not be limited to, the following:

Transmission of COVID-19

- Prevalence of COVID-19 and variants in the region
- Vaccination status of the air crew members
- Crew personal risk of complications from a COVID-19 infection
- If using a mask in the cockpit, the risk of transmission while eating and drinking

Flight Safety Risks

- Effects on the use of the supplemental oxygen mask
- Effects on inter-crew communication including the inability to read lips and non-verbal communication

³ <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks>

- Effects of air traffic control communication
- Possible disturbing effects of wearing a mask during critical phase of flight (e.g. take-off and landing)
- Diminished senses (sight and smell)
- Possible increase of stress or fatigue

MITIGATIONS

Risks associated with mask use should be mitigated using appropriate means, including:

- Training on correct use of masks, including changing masks when they become wet, soiled, or damaged, and,
- Training on emergency procedures with face masks.

FLIGHT CREW DECISION FRAMEWORK

The crew should follow their operator policy on mask use, but if using the mask is considered a flight safety risk, the crew should have the option not to use it.

If a pilot becomes symptomatic during the flight, all pilots should wear medical masks and it should be considered that the symptomatic pilot should be removed from duty.

In the event of a disagreement between crew members on the use of masks, an open discussion on the risks using CRM principles should follow. If the disagreement cannot be resolved, the crew should follow the appropriate company procedures for similar conflicts.

MASK USE IN THE SIMULATOR

The simulator does not pose risks to the safety of flight and therefore the use of masks in the simulator should be in accordance with public health authority and operator requirements.