

# Low risk of COVID infection on planes if masks worn: US military

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The risk of being infected with the coronavirus on an airliner is very low if passengers wear masks, according to a study carried out aboard Boeing long-haul jets by the US military and published Thursday.

Researchers using sensors and fluorescent tracers measured the volume of airborne contagious matter emitted by a dummy simulating an infected person breathing normally.

The passengers most exposed to the infected person—those just in front of, behind or beside the dummy—were represented in the study by the sensors.

Some 300 [test](#) rounds were carried out on the ground and in flight over the course of eight straight days in August in cooperation with United Airlines on Boeing 767 and 777 jetliners.

The study concluded that 99.7 percent of COVID contaminant particles were eliminated by the sophisticated ventilation systems on the planes before they reached the passengers seated

closest to the dummy.

Expanding outward to the 40 seats closest to the infected person, the elimination rate is 99.99 percent, the study said.

The results prompted US military transport officials to conclude that even on a full [plane](#), the level of transmission over 12 hours of flight was negligible.

However, the tests only looked at a scenario involving a single infected [passenger](#). They also assumed that everyone on the plane wore a mask continuously, and did not address a scenario in which an infected person walks around the cabin of the plane.

"While the tests did have some limitations," said Commander Joe Pope, the US Transportation Command (USTRANSCOM) operations directorate liaison for the testing, "the results are encouraging."

"For both the 777 and 767 airframes, the calculations show about 54 [flight](#) hours are required for cumulative inhalation of an assumed infectious dose," Pope said.

The study was conducted by USTRANSCOM and the Defense Advanced Research Projects Agency (DARPA).

Since the start of the pandemic, the US military has suspended most movement of its troops and their families.

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