Turning Up the Heat on COVID-19 in the Flight Deck

SEATTLE, Dec. 15, 2020 /PRNewswire/ -- Boeing [NYSE: BA] and the University of Arizona put an age-old technique, thermal disinfection, to use in the fight against COVID-19. Researchers validated that applying heat to surfaces, especially on hard-to-clean flight deck equipment, effectively eliminates SARS-CoV-2.

Results indicate that the virus can be destroyed by more than 99.99% after three hours exposure to temperatures of 50 degrees Celsius (120 degrees Fahrenheit) and will still effectively kill more than 99.9% of the virus at 40-degree Celsius temperatures (104 degrees Fahrenheit).

"Passenger and crew safety are our top priorities — that extends from the cabin to the flight deck," said Michael Delaney, who leads Boeing's Confident Travel Initiative (CTI) efforts. "Thermal disinfection could deliver another valuable tool to destroy COVID-19 on sensitive and difficult-to-reach components that protect pilots."

Boeing completed the testing as part of its CTI effort to support customers and enhance the safety and well-being of passengers and crews during the COVID-19 pandemic. This testing was conducted in a protected laboratory environment at the university using flight deck parts and SARS-CoV-2, the virus that causes COVID-19, this fall.

"We're basically cooking the virus," said Dr. Charles Gerba, University of Arizona microbiologist and infectious disease expert. "Thermal disinfection is one of the oldest ways to kill disease-causing micro-organisms. It's used by microbiologists in our laboratory every day."

The flight deck is one of the most challenging areas to sanitize using traditional chemical disinfectants. In areas with sensitive electronic equipment, heat has the ability to disinfect without adverse effects from cleaners. The flight deck is designed to withstand temperatures up to 160 degrees Fahrenheit (about 70 degrees Celsius), which makes thermal disinfection a safe, practical and effective sanitization method.

As air travel is fundamentally disrupted by the global COVID-19 pandemic, Boeing and the University of Arizona continue to test recommended cleaning methods in a lab against SARS-CoV-2 and other similar viruses to further validate their efficacy.

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