

Boeing and University of Arizona Show Cleaning Tools and Techniques Effective Against COVID-19

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Cleaning technologies and disinfecting solutions tested against a virus that is safe to humans inside an unoccupied Boeing airplane

Results show products, methods and technologies tested are effective

SEATTLE, Oct. 22, 2020 — In a first-of-its-kind series of tests, Boeing [NYSE: BA] and the University of Arizona determined airlines' current cleaning solutions effectively destroy the virus that causes COVID-19. Boeing completed the testing as part of its Confident Travel Initiative (CTI) to support customers and enhance the safety and well-being of passengers and crews during the COVID-19 pandemic.

Testing was conducted on an unoccupied Boeing airplane against a live virus called MS2 over the summer. The University of Arizona, Department of Environmental Sciences correlated those results to SARS-CoV-2, the virus that causes COVID-19, in a protected laboratory environment.

"While these cleaning solutions had been tested in other environments, an airplane behaves differently. It was critical for us to evaluate and confirm the chemicals and techniques we recommend for our customers' use are effective and battle-tested," said Mike Delaney, who leads Boeing's CTI efforts. "By working with the University of Arizona, we were able to employ their world-renowned expertise in virology to do exactly that."

The bacteriophage virus MS2 is safe and harmless to humans and more difficult to kill than SARS-CoV-2. Scientific and industry studies have used the MS2 virus for many years, but never before in an airplane cabin. The University of Arizona provided the MS2 virus and analyzed test results.

"This study allowed us to test and validate, for the first time, that disinfecting solutions kill SARS-CoV-2 on an airplane," said University of Arizona microbiologist Dr. Charles Gerba. "It's important to recognize we're not only talking about SARS-CoV-2, but also other viruses and microorganisms."

The study placed MS2 at strategic high-touch points throughout the cabin, including on seat tray tables, arm rests, seat cushions, stowage bins and inside the lavatory and galley. Technicians disinfected each area with various products and technologies. Chemical disinfectants were applied through two means: manual wiping and with an electrostatic sprayer, a device that applies a fine spray of an approved liquid disinfectant. The tests also measured how well [Boeing's ultraviolet wand](#) and antimicrobial coatings worked. Antimicrobials are long-lasting coatings that destroy germs and viruses on surfaces.

The University of Arizona analyzed each area post-disinfection to determine effectiveness. The results showed various levels of effectiveness, but ultimately all the recommended products, methods and technologies successfully destroyed the MS2 virus.

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.

Boeing is the world's largest aerospace company and leading provider of commercial airplanes, defense, space and security systems, and global services. As the top U.S. exporter, the company supports commercial and government customers in more than 150 countries and leverages the talents of a global supplier base. Building on a legacy of aerospace leadership, Boeing continues to lead in technology and innovation, deliver for its customers and invest in its people and future growth.

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