

# ACA COMPONENT DEACTIVATES HARMFUL PATHOGENS

Duncan Aviation is installing the ACA (Aviation Clean Air) ionizing, air-cleaning component. During flight, the ACA units deactivate harmful pathogens and neutralize odors and allergens.

The ACA units produce ionized molecules that attach themselves to viral, bacterial, and fungal pathogens, rendering them harmless. An independent test conducted by Innovative BioAnalysis in May 2020 found that the **ACA ionizer was effective in rendering harmless the novel coronavirus that causes COVID-19.**

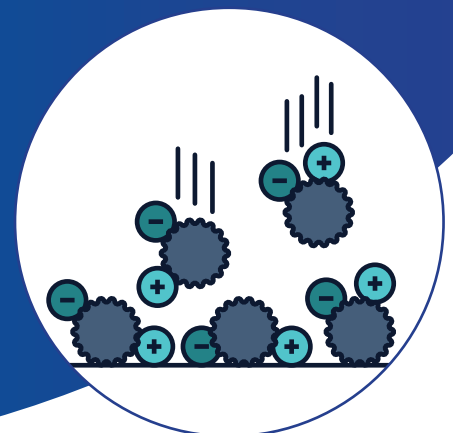
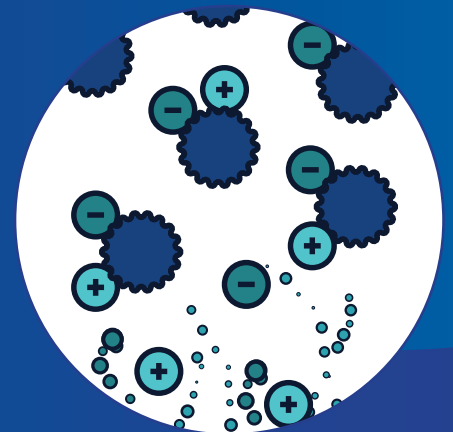
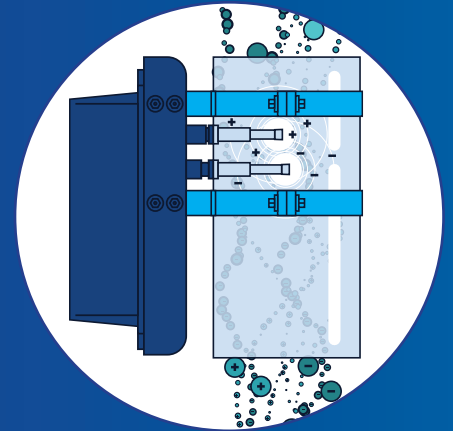
The ACA units create positively charged hydrogen and negatively charged oxygen atoms, which are called hydroxyl groups. These hydroxyl groups bind to the virus' peplomers, which are the crown-like structures that attach to receptor cells in a host. Instead, the positively charged hydrogen ion causes a chemical reaction, breaking down the proteins (glycoproteins) that protect the virus, rendering it ineffective and unable to bind to a host cell.

The lab test showed that **99.4%** of the virus particles were inactivated within 30 minutes.

The ionized molecules also deactivate pathogens such as those that cause the common cold, flu (swine, avian, etc), SARS (Severe Acute Respiratory Syndrome), Ebola, polio, MRSA, C. diff, E. coli, pneumonia, and mold.

The ACA component neutralizes potentially harmful gasses caused by fuel emissions, other VOCs (volatile organic compounds), and offensive odors caused by cooking or cleaning, cigar smoke, stagnant air, pets, and lavatories. As it ionizes air, it also reduces the static electricity in your aircraft that's caused by the low relative humidity of the cabin air.

An ideal time to install this powerful system is during a scheduled maintenance or refurbishment event, but because **installation takes less than 2 weeks at many of our MRO and Satellite locations**, we can schedule a stand-alone event.



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