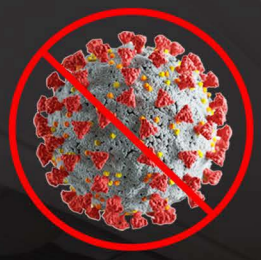
FOR INSTALLATION IN AIRCRAFT ENVIRONMENTAL CONTROL SYSTEMS (ECS) DUCTING

AIRBORNE AIR & SURFACE PURIFICATION SYSTEM

WE MAKE AIR TRAVEL SAFE



SCIENTIFICALLY PROVEN TO KILL
SARS-CoV-2
(COVID-19)

- Kills SARS-CoV-2 (COVID-19).
- Kills Surface Pathogens.
- Destroys Airborne Pathogens.
- Sterilizes Mold and Bacteria.
- Removes Odors.
- Increases Air Quality.
- Reduces Static Electricity.
- Reduces Dust, Pollen and Smoke.
- Neutralizes Common Industrial Gases.
- DOES NOT PRODUCE OZONE.

ACA Component P/N ACA-RN-0001

ACA introduces a stunning new air and surface purification system for Aviation providing an immediate clean, safe, and healthy interior by eliminating odors, viruses, and allergens. This no maintenance system works on <12.0 EVP (electron volt potential) and produces no Ozone while killing up to 99.7% of both airborne and surface pathogens. Because it integrates into the existing ECS, it circulates through the entire cabin and is ideal for business as well as commercial aviation.

ACA
AVIATION CLEAN AIR
Cleaning the Air We Breathe in Flight

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Page:	1 of 5

Web: www.AviationCleanAir.com
Email: Sales@AviationCleanAir.com

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ACA COMPONENT SPECIFICATIONS

ACA Component P/N ACA-RN-0001

Mechanical Specifications

Dimensions:	7.02" L x 3.27" W x 5.36" H (w/Probes Extended)
Enclosure:	Black Anodized Aluminum (Sealed)
Electrode Material:	Carbon Fiber
Weight:	1.34 pounds (607 grams)
Temperature Range:	-65 degrees C (-85 degrees F) to +85 degrees C (+185 degrees F)
Humidity Range:	5%-99% Relative Humidity

Electrical Specifications

Voltage:	28 VDC (Range 18-32 VDC)
Current:	150 mA
Power:	4.2 Watts
Frequency:	N/A
Air Flow Sensing:	Electronic – no external air pressure or flow switch required.
Connection Type:	MIL-C-26482, Series 2 Connector / 8 pin / Model MS-3470-L12-8-P
Connection Details:	A = 28 VDC, B = DC Common, C = Chassis Ground, D = Dry Contact Status Contact, E = Dry Contact Status Contact (F,G, & H not used)
Monitoring:	Continuity between pins D & E when unit is powered and no alarms present. When alarm occurs/unit is not powered, pins D & E will be open.
Electron Volt Potential:	<12 EVP
Output:	Up to 2 Million positive (H+) and negative (O2-) ions
Ozone Output:	Certified to UL2998 (does not produce Ozone)

Federal Aviation Administration - Parts Manufacturer Approval (PMA) - November 16, 2017

U.S. Patent D868233 - Design and Utility

Title: AIRCRAFT PROACTIVE AIR AND SURFACE PURIFICATION COMPONENT - Issued November 26, 2019

FAA Project Number ST14781AT-T Supplemental Type Certificate (STC),Boeing Business Jet - February 9, 2015

FAA ST04440AT Gulfstream GVI Supplemental Type Certificate (STC), - February 13, 2019

FAA ST04441AT Gulfstream GVI-X and GV-SP Supplemental Type Certificate (STC), - February 13, 2019

Numerous FAA-STC's for the Gulfstream, Boeing, Leonardo, plus additional OEM's pending.

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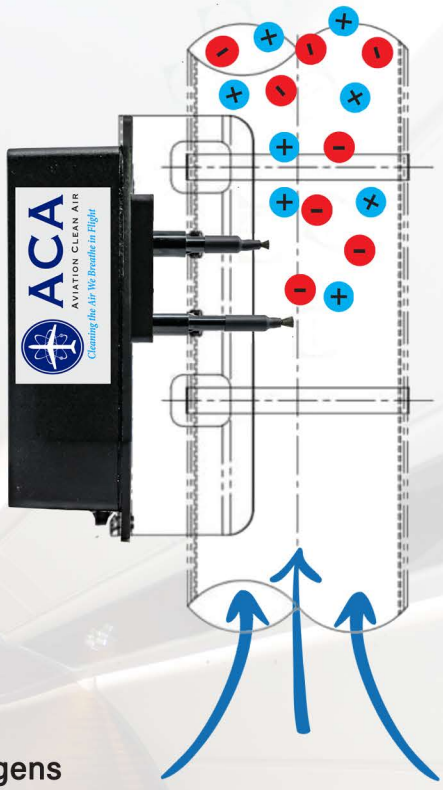
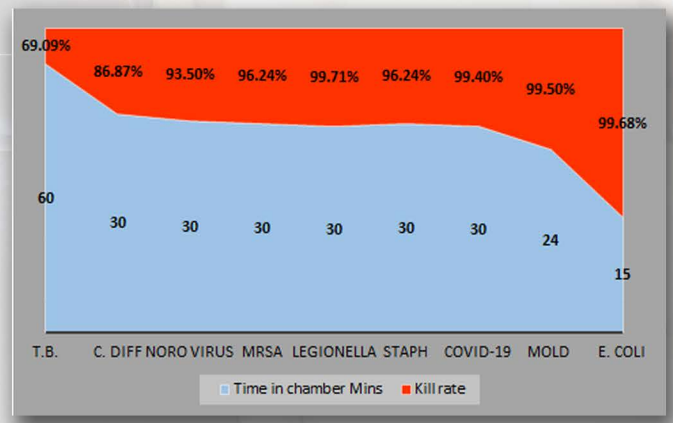
Our ACA COMPONENT uses our patented NPBI™ Ionization technology to provide clean air and sanitized surfaces delivered through the aircraft ECS

Air produced by the by the Aircraft ECS delivers the ACA Positive (H+) and Negative (O2-) ions to kill pathogens in the air and on surfaces as well as elimination of any exiting odors and allergens.



The ACA Component is effective wherever the ionized air reaches. The unit removes all pathogens, odors, as well as other VOCs generated by cooking, cleaning, stagnant air, cigarette/cigar smoke and many other sources. The ACA Component kills pathogens including, but not limited to, SARS-CoV-2 (COVID-19), the common cold, flu of all types and variations, MRSA, C. diff, E. coli, M. terrae, pneumonia and polio. Our unit reduces static electricity. The ACA Component with BiPolar Ionization technology is environmentally friendly and works by duplicating and accelerating nature's cleaning process, with **no chemicals added.**

Controls - Allergens
Controls - Gases
Controls - Volatile Organic Compounds
Removes - Pet Odors
Removes - Cooking Odors
Removes - Cigar and Cigarette Smoke
Removes - Moisture Odors
Neutralizes - Static Electricity
Produces - **No Ozone**



Kills - SARS-CoV-2 (COVID-19)
Kills - Airborne and Surface Viruses,
Kills - Bird Flu Virus (H5N1),
Kills - Swine Flu Virus (H1N1),
Kills - SARS Virus,
Kills - Staph Bacteria,
Kills - Mold Spores,
Kills - MRSA,
Kills - E.coli, T.B.
Kills - C.diff and more.

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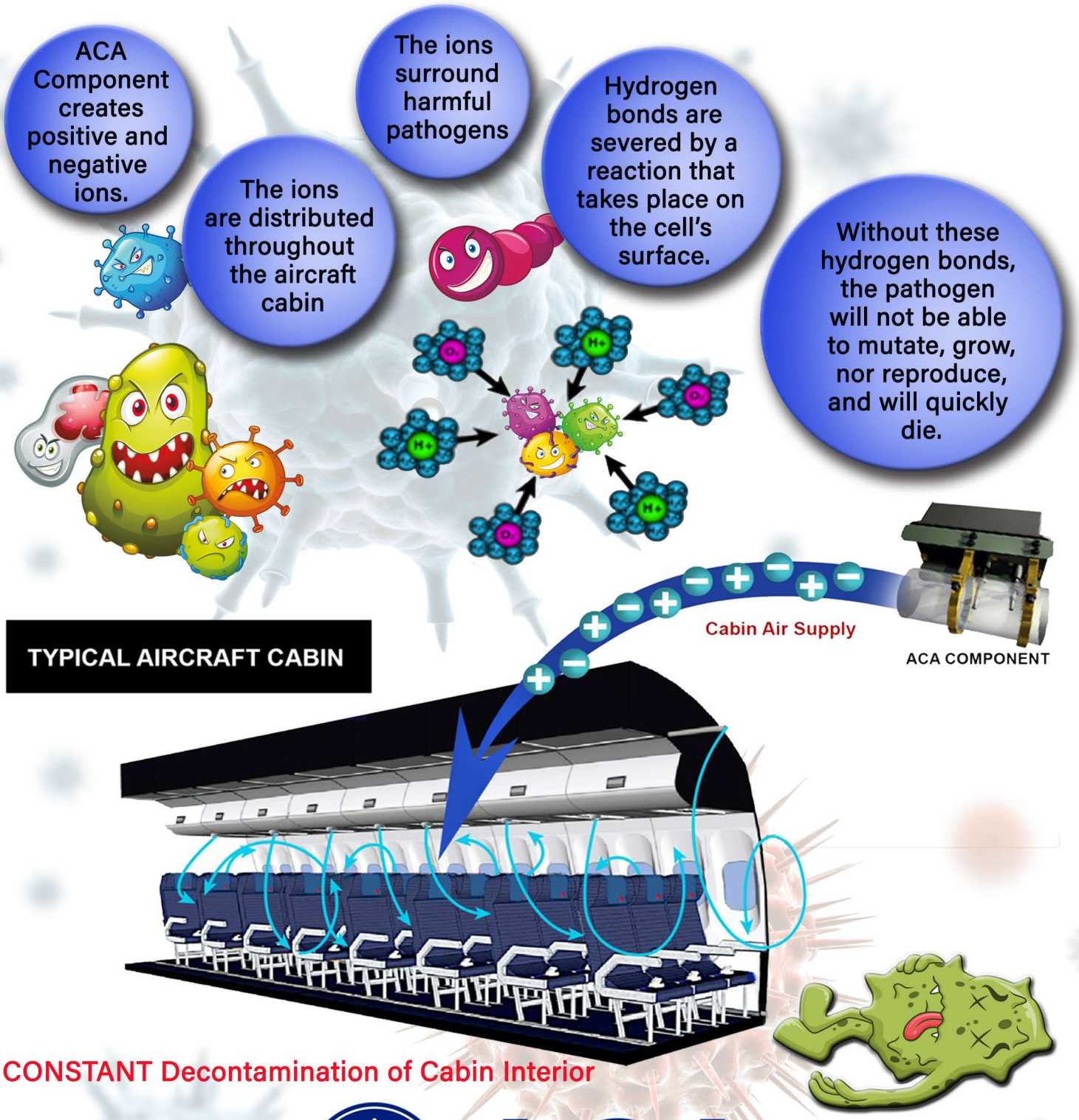
HOW THE ACA COMPONENT WORKS



CONSTANT Decontamination of Cabin Interior

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The ACA COMPONENT uses our patented NPBI™ Ionization technology to provide clean air and sanitized surfaces in enclosed enviorments.

ACA Component P/N ACA-RN-0001

How it works:
The ACA Component is not a filter. The ACA Component electronically creates positive and negative ions from Hydrogen and Oxygen molecules in the water vapor present in the air. This replicates natures' cleaning process with nothing else added. These ions have the property of clustering around micro particles, gases, airborne mold spores, viruses and bacteria. As this occurs, a natural reaction takes place on the cell membrane surface of airborne biological(s) where they rob the harmful biological of a hydrogen atom. As a result, the pathogens are inactivated, and odors are disassembled naturally. The pathogen will not be able to reproduce and will quickly die and the odors are converted to virtually pure air thereby eliminating the threat of the pathogens and odors to human health and comfort.

Airborne and Surface Fungi:
The positive (H+) and negative (O2-) ions cluster together on the surface of airborne fungi, causing a natural reaction that results in the creation of OH groups called hydroxyls. The hydroxyls take a hydrogen molecule from the cell wall of an airborne fungi particle. This inhibits the growth and or infestation of mold and in turn [as a by benefit] controls the musty odors related to mold growth (sour sock smell). This process is a replication of natures' method for Inactivating Airborne Fungi with nothing else added.

Airborne and Surface Virus:
The positive (H+) and negative (O2-) ions surround the hemagglutinin (surface proteins that form on organisms and trigger infections) and change into OH groups called hydroxyls. These groups take a hydrogen molecule from the hemagglutinin and change it into water (H2O). The ions destroy the virus surface structure. It envelops the structure of the virus on a molecular level. As a result, the virus cannot infect even if it enters the body. This process is a replication of natures' method for Inactivating Airborne and Surface Viruses with nothing else added.

Airborne and Surface Allergens:
The positive (H+) and negative (O2-) ions surround the airborne allergen and change into hydroxyls. The hydroxyls then deactivate the molecules of the IgE antibody-binding site of the allergen. No allergic symptoms occur even if allergens enter the body. This process is a replication of natures' method for inactivating Airborne and Surface Allergens with nothing else added.

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ACA™ AVIATION CLEAN AIR

Cleaning the Air We Breathe in Flight

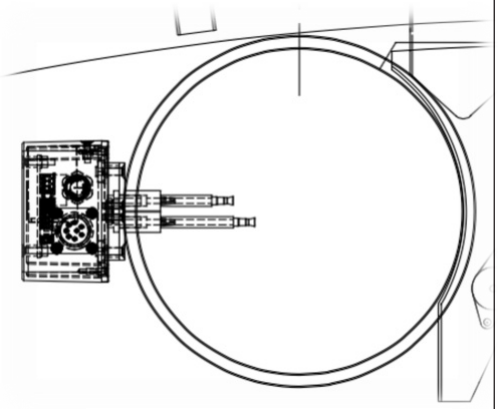
"Cleaning the Air We Breathe in Flight"

ACA technology is designed to purify and sanitized the air and surfaces on-board aircraft

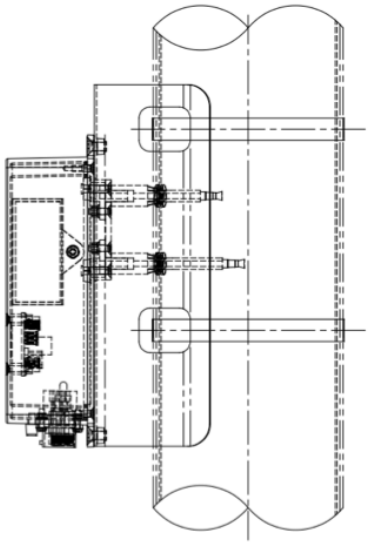
The air and surface purification technology offered by Aviation Clean Air (ACA) is a proactive component that can be added to an existing environmental control system. ***The ACA component is not a filter system;*** filtration systems are passive and mostly ineffective as they only collect the allergens and pathogens that find their way back to them, located somewhere in the mechanical area of the aircraft.

When air flows through the ECS ducts and into the cabin and cockpit, the ACA component removes existing odors, mold spores and allergens, proactively and rapidly. It also kills pathogens in the air and on surfaces where they sit throughout the aircraft interior including the cockpit, cabin, galley, lavatories and baggage areas. The ACA Component is effective floor to ceiling and wall to wall wherever the conditioned air reaches.

The component removes new odors caused by fuel emissions, as well as other VOCs generated by cooking, cleaning, stagnant air, cigarette/cigar smoke and many other sources. The ACA Component kills pathogens including, but not limited to, the common cold, flu of all types and variations, Covid 19, MRSA, C. diff, E. coli, M. terrae, pneumonia, and polio. A side benefit is that the system also controls static electricity within the the aircraft interior too. The technology is 100% green and works by duplicating and accelerating nature's cleaning process, with nothing else added, and No Ozone. The benefits are noticeable to crew and passengers in just seconds.



Installed Views



Contact us for more information today!

TDavis@aviationcleanair.com
Tel: 248-505-6804

Mechanical Specifications

Dimensions : 7.02"L x 3.27"W x 5.36"
With probes extended
Enclosure: Anodized Aluminum (Sealed)
Electrode Material: Carbon Fiber
Weight: 1.34 pounds (607 grams)
Temp. Range: -65°C / -85°F to +85°C/+185°F

Electrical Specifications

Voltage: 28 VDC (Range 18-32 VDC)
Current: 150 mA
Power: 4.2 Watts
Connection Type: MIL-C-26482, Series 2
Connector: 8 pin - MS-3470-L12-8-P
Pinout: A= 28 VDC, B = DC Common, C= Chassis Ground, D = Dry Contact Status Contact, E = Dry Contact Status, (F,G, & H not used)
Status: Continuity between pins D & E when unit is powered and no fault is present. If a fault occurs the Component is not powered, pins D & E will be open.

Testing

The ACA component has been fully tested and meets and/or exceeds requirements of RTCA DO-160.

The ACA component environmental condition and tests are applicable to all airborne vehicles both Fixed Wing and Rotary aircraft platforms.

Application

The ACA component can be installed in pressurized or non-pressurized environments up to 55,000 Ft Alt

STC's

Certification for numerous aircraft and helicopter, types and models are now available for installation of the ACA systems.

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FAA PMA - 2017
Design and Utility Patents with others Pending.