



ASSURING THE BREATHE OF PASSENGERS AND CREW WHILE THEY TRAVEL

At a time when there are increasing concerns about the transmission of infections such as the Influenza A (H1N1) virus, the I-CAIR system installation provides a significant advance in aircraft air purity, protecting both passengers and crew from a wide range of air contaminants, both biological and chemical.

The I-CAIR system is comprised of the Airdata BPS system derived from patented "cold plasma ionic interaction" technology as pioneered in space and used today on the international space station. Unlike traditional cabin air filters, the BPS is an "active" design, using an electrical sterilization technique in order to "catch and kill" air contaminants. In addition to its germicidal effect, this technique has the further advantage of simultaneous reduction of a wide range of harmful and annoying gases, against which traditional air filters have no effect.

INNOTECH AVIATION EXPERIENCE

Innotech Aviation, one of the world's most experienced and modern completion and refurbishment centers has received STC for the I-CAIR system installation on Bombardier's Global series business aircraft.

The combination of Innotech's installation and certification experience and Air Data's expertise in cabin air management quality systems give corporate aircraft operators the chance to benefit from advanced air purification technology, increasing protection to everyone's on board.

I-CAIR SYSTEM BENEFITS

- 99.99% destruction of bio-contaminants, with proven effectiveness on Avian flu virus, Corona virus (SARS), Serratia marcescens, Aspergillus niger, Pseudomonas aeruginosa, Staphylococcus aureus, MS2 Bacteriophage, Brevundimonas diminuta and bacillus astropaeus (anthrax surrogate) among others.
- Significant reduction in cabin ozone levels.
- Stable performance with time, without the much faster deterioration associated with the filters (clogging and increasing pressure drop) and with other sterilization methods.
- Eliminated risk of re-contamination during filter maintenance/handling and during airflow stoppages.
- Performance verification by renowned international medical institutes and research centers in France, UK, Russia and USA.

ICAIR INNOTECH CABIN AIR SYSTEM

IN-LINE REACTOR MODEL (ILR)

SPECIFICATIONS

RATED AIRFLOW	260CFM
INPUT POWER	40W typical
WEIGHT*	17.5 lbs (7.94 kg)
DIMENSIONS	
CROSS-SECTION	16.6 in x 12.7 in (422 mm x 323 mm)
FLOW DIRECTION	17.9 in (455mm)
QTY IN GLOBALS	2

*Total impact once existing system are removed from Global series aircraft would be approximately 32 lbs.



ARCHITECTURE

Multi-stage de-contamination based on Plasmer™ cold plasma ionic interaction technology.

PRINCIPLE OF OPERATION

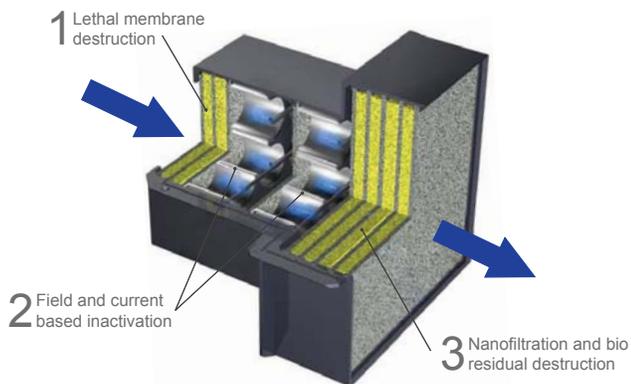
Micro-organisms, viruses and other small contaminants are electrically charged and attracted to the surfaces of porous dielectric materials where living and parasitic matters (viruses) are subject to lethal effects including:

- rupture of the cell membrane or protective casing through local oxidation
- damage to molecular structure including the DNA/RNA

BIOLOGICAL REDUCTION EFFICIENCY

99.99% minimum reduction at rated airflow per unit.
Efficiency increases with lower airflow.

COLD PLASMA IONIC INTERACTION TECHNOLOGY



NANO CAPTURE

Better than 99.999% removal efficiency for 0.001 µm to 0.01 µm sized disintegration by-products including endotoxins.

OZONE REMOVAL

Under 5 ppbv residual for recirculated air input levels up to 100 ppbv.

INDEPENDANT VALIDATION

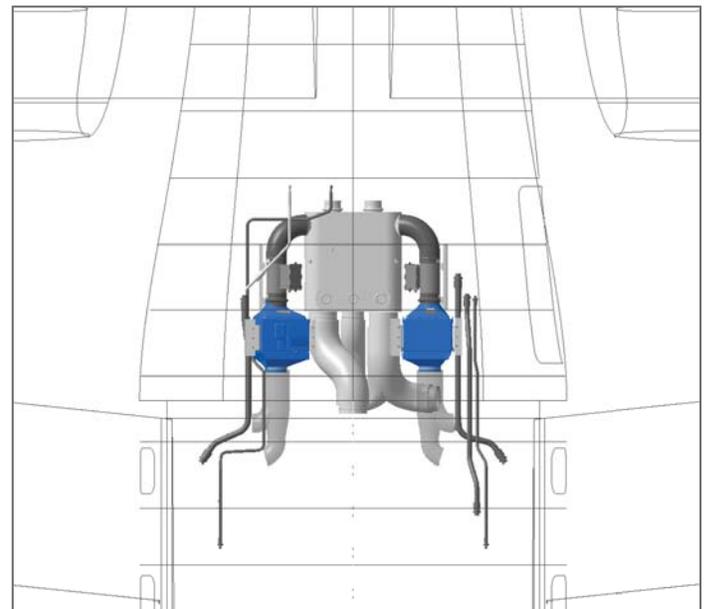
Harvard School of Public Health, Boston, USA.

École Normale Supérieure (ENS), Laboratoire de physique, Lyon, France.

Health Protection Agency, Porton Down, UK.

TYPE CERTIFICATION

Transport Canada No. AP-70



Global Express | Cross section | View looking down

FOR FURTHER INFORMATION, PLEASE CONTACT ONE OF OUR SALES TEAM MEMBERS



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