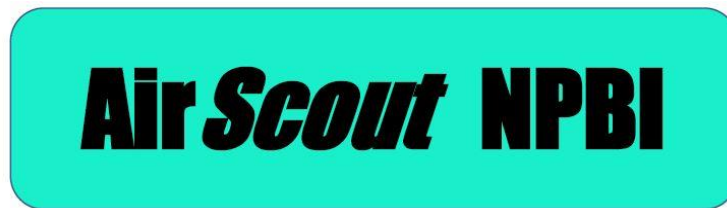


AirScout could prove to be game changer for schools, public buildings in COVID era

BY [BRANDON PEOPLES](#) ON OCTOBER 17, 2020 [LOCAL NEWS](#)



AirScout logo courtesy image

The AirScout NPBI may provide the solution to eliminating coronavirus from the air and surfaces in public places and provide more confidence for individuals returning to work, classrooms, restaurants and public gatherings.

Dave Ogle is the founder of Tech-UV Ultraviolet & Plasma and the developer of the AirScout NPBI, which came about recently during the pandemic, after a long career in HVAC design and engineering from a business which has installed UV-C lights in systems for years. He says his company teamed up with North Carolina-based Global Plasma Solutions as the pandemic presented this year to conduct research into how effective ionization could be in killing human coronavirus on surfaces and in the air in buildings.

“The tests proved the ionization systems were extremely effective against viruses and other pathogens, but they had to be at a remarkably high level of ionic density. The lab testing found that it was really effective at 27,000 ions per CC of air,” he said.

The process utilizes “needlepoint bi-polar ionization” or NPBI technology, sending negative and positive static plasma ions into the air. Ogle says a human coronavirus test conducted in March cleaned up virtually all surface and air contaminants within an hour. In June, a second test was performed using SARS Cov-2, the actual virus that causes COVID-19 with Global Plasma and Aviation Clean Air which proved even more efficient in efficacy.

“So, they bumped it up to nearly 30,000 ions per CC of breathable air and they had an efficacy-kill rate above 99% within 30 minutes,” he said. “This is where we set the baseline concentration density for our engineered installs, and the AirScout is designed to achieve this.”

Ogle says he is hoping that public schools will implement the technology to get kids and teachers back in the classroom worry-free. He sees other important applications that can be deployed immediately which are installs into Court rooms.

“The Courts are clogged with cases and behind in schedule. There are serious issues with jury trials and jury members being in contact with each other and this has Constitutional implications” he stated.

“The issues that are going on in the public school systems are just as serious, along with any facility where people need to gather.”

“School from home? We knew it was going to be a failure from day one. Look what has happened. Teachers are quitting, kids are frustrated at home, they want to be with their friends, and I think pressure is going to be brought to bear on that market.”

“We are hoping to get the attention of the school districts. We can set up a classroom with the wall mount AirScout NPBI in less than one hour and begin the ionizing process to get the room air above 30,000 ions/cc where you would have a virtually virus-free environment in about 30 minutes on surfaces and in the air.”

“Viruses cannot live in an environment with such an ionic charge density, and the air is perfectly safe to breathe. This protects both the air and surfaces. Every desk, chair, pencil; everywhere in the room. We have and can also provide the testing equipment we would bring into the classroom or building and prove the ionic density. We already have all EPA and UL 2998 approval certifications for no ozone production.”

“We have also developed a way to monitor the ionic density in real time from a phone or tablet. This is important because you will be able to check the ionic density level from your phone before entering the building.” he said. “This will be valuable for restaurants and cafes that have random people going in and out all day.”

Tech-UV has already partnered with two full building monitoring system software providers including Samsara, Inc. in San Diego, California, and Particle Space in Overland Park, KS. Both platforms provide real time monitoring and can even send a text message or email alerts if the level drops below the required safe density level known as “30Ki”.

Earlier this month, Kansas Education Commissioner Dr. Randy Watson began urging districts to develop plans to bring kids back to in-person class learning as soon as possible. USD 383 Manhattan/Ogden, which has operated in a hybrid model since Aug. 26, will continue through the end of October. The school board plans to vote on a possible proposal Oct. 21 to move toward the traditional 5-day in person schedule.

Tech-UV has already completed a school building project in Wichita led by iSi Environmental as the lead contractor.

Ogle said that “the people at iSi Environmental are brilliant. They have analyzed the testing data and it was a no brainer to get it into the Independent School Buildings to protect the safety of kids and faculty.”

Ogle says the airline industry is starting to utilize similar technology already. Tech-UV has also secured a contract with a Canadian company called Giesecke-Devrient, which prints the Canadian dollar and provides high security financial transactions.

“They see it as a facility high security technology because you can’t have people working from home, printing the Canadian dollar. That is not going to happen. There are a lot of industries that cannot happen working from home.”

“This is the target market we’re looking at, and why Children’s Mercy Hospital is implementing it with Tech-UV right now as well.” he said. That project is being headed by Dr. Mark Connelly who saw the value in using the NPBI technology.

“We presented the solutions we have tested and experimented with already to the Department of Defense and were awarded a Federal Research Grant to keep going” Ogle stated.

The \$900,000 two-phase Federal Research Grant was awarded on October 15 as a collaboration effort for Nitride Solutions, Inc. of Wichita, MRI Global Lab testing facility in Kansas City, MO and Tech-UV Ultraviolet & Plasma of Lawrence.

“We’re so excited to work with these amazing people. Dr. Cris Ugolini at NSI Wichita was instrumental in getting the research grant and recognizing the emerging LED UV-C capabilities as well. He was the real vision behind this.”

Jason Schmidt at NSI Wichita is positioned to be the lead strategist for product development under the Federal Research Grant, who’s company has already developed COVINIX, the first UV-C LED device with proven efficacy of SARS Cov-2.

Tech-UV’s cost-effective *AirScout* NPBI wall mount can cover up to 4,000 square feet per unit and has three sizes of airflow capacity. It only uses three amps of power, which at .13 cents per kilowatt hour would be roughly \$14 a month to operate if ran 12 hours a day. It uses no filters and requires no maintenance. The NPBI technology can be deployed with the wall mount *AirScout*, or added to existing HVAC systems, or both to meet the required density level.

To learn more about the *AirScout* NPBI wall mounts and other HVAC NPBI applications for this technology, visit tech-uv.com.

Device Virtually Eliminates Static SARS-CoV-2 with Proprietary NPBI™ Technology:

Global Plasma Solutions is the first air purification solution to test SARS-CoV-2, achieving a 99.4% reduction of the surface strain within 30 minutes

June 10, 2020 02:30 PM Eastern Daylight Time

CHARLOTTE, N.C.--([BUSINESS WIRE](#))--Global Plasma Solutions, the leader in Indoor Air Quality, announced today industry-leading ionization testing results, demonstrating a 99.4% reduction rate on a SARS-CoV-2 (COVID-19) surface strain within 30 minutes, the first instance in which an air purification company has effectively neutralized SARS-CoV-2. Following initial testing of coronavirus 229E in March 2020, Global Plasma Solutions utilized its proprietary “needlepoint bipolar ionization” to inactivate SARS-CoV-2. The study was jointly executed with Aviation Clean Air.

In this laboratory study, Aviation Clean Air designed a test to mimic ionization conditions like that of a commercial aircraft’s fuselage. Based on viral titrations, it was determined that at 10 minutes, 84.2% of the virus was inactivated. At 15 minutes, 92.6% of the virus was inactivated, and at 30 minutes, 99.4% of the virus was inactivated.

“The testing results we achieved through our proprietary needlepoint bipolar ionization technology clearly demonstrate that Global Plasma Solutions is the gold standard in air purification,” said Global Plasma Solutions Founder and Chief Technology Officer, Charles Waddell. “For any kind of facility from commercial buildings to aircrafts, delivering the cleanest, safest indoor air environment will only become increasingly more important, and our ozone-free technology is one of the most sophisticated products on the market.”

Understanding needlepoint bipolar ionization

Needlepoint bipolar ionization works to safely clean indoor air, leveraging an electronic charge to create a high concentration of positive and negative ions. These ions travel through the air continuously seeking out and attaching to particles. This sets in motion a continuous pattern of particle combination. As these particles become larger, they are eliminated from the air more rapidly.

Additionally, positive and negative ions have microbicidal effects on pathogens, ultimately reducing the infectivity of the virus. Global Plasma Solutions’ needlepoint bipolar ionization is ozone-free and the only kind in its category to pass the RCTA DO-160 standard for aircraft. Traditional bipolar ionization systems produce harmful ozone as a byproduct.

About Global Plasma Solutions

[Global Plasma Solutions](#) (GPS) is the leader in Indoor Air Quality, with over 30 patents and more than 250,000 installations worldwide using our needlepoint bipolar ionization (NPBI) technology to deliver clean indoor air that is safe and healthy – producing neither ozone nor other harmful by-products. All of our NPBI products are UL and CE certified and registered and use NPBI to purify the air by eliminating airborne particulates, odors and pathogens. GPS was founded in 2008 and is headquartered in Charlotte, North Carolina.