

## UV Pure® Case Study

Application:	Transportation Project
Solution:	Crossfire Technology® for Aerospace Potable water purification
Location:	Global



Pure, safe water.  
*Always.*

### Boeing® 787 dreamliner® relies on Canadian water purification technology for point of entry treatment

Following a global search for the most advanced UV water purification technology available, Zodiac Aerospace's Monogram Systems division signed a technology licensing agreement with UV Pure® Technologies of Toronto for exclusive use of UV Pure®'s patented Crossfire Technology® in aerospace applications. The device will debut on the Boeing® 787 Dreamliner®.

"We are honored that Monogram has chosen our advanced UV technology to provide safe water on board the Dreamliner the new 21st century standard for airliners," said Rick VanSant, CEO, UV Pure® Technologies. "The same Crossfire Technology® that will purify the water on board Boeing®'s 787 is incorporated in all of our UV systems, in over 9000 applications globally. It represents significant engineering and performance advances for UV based water purification systems. We think it is a perfect fit for Monogram and Boeing®."

As recently as last October (2010), the US Environmental Protection Agency published updated Final Drinking Water Rules for water safety standards on commercial aircraft to help ensure that safe and reliable drinking water is provided to aircraft passengers and crew. The rule requires multiple- barrier protection through standards for coliform sampling, best management practices, corrective action, public notification, monitoring and operator training. It will better protect the public from illnesses caused by microbiological contamination.

"This rule is a significant step forward in protecting people's health when they travel," said Peter S. Silva, assistant administrator for EPA's Office of Water.

"Monogram Systems consistently leads the industry in fusing design and innovation and producing the most reliable Cabin system equipment," said Gene Zipp, Vice President of Sales and Support for Monogram Systems. "There is a Monogram Systems product on- board nearly every western commercial aircraft flying in the world today."

Monogram engineers worked with UV Pure®'s engineers to adapt the land based technology to an aerospace platform and certify it to FAA standards.

The UV Pure® systems are smart with multiple sensors that enable a display on the airplane's "glass cockpit" so that the pilots can tell that the plane's water is effectively disinfected. In addition to adapting communications protocols so that the system's smart technology and multiple sensors can tie into aircraft displays, Monogram had to adapt it for high G forces and vibration in three dimensions. UV Pure®'s systems use low-pressure high output lamps and the new aircraft ballast that powers those lamps was adapted to work with "wild frequency power" typically found on all new commercial aircraft.

The UV Pure® product is completely self-contained, requiring only electrical power and standard water connections. Utilizing high intensity ultra-violet light, the treatment device kills over 99.99% of all bacteria and viruses found in common water sources. The device can be used to clean water as it enters the Aircraft, or, to continuously clean water as it is circulating throughout the cabin of the Aircraft, providing safe drinking water to the passengers and crew. The product has several unique proprietary innovations that allow the Airplane operator to remotely monitor performance.

