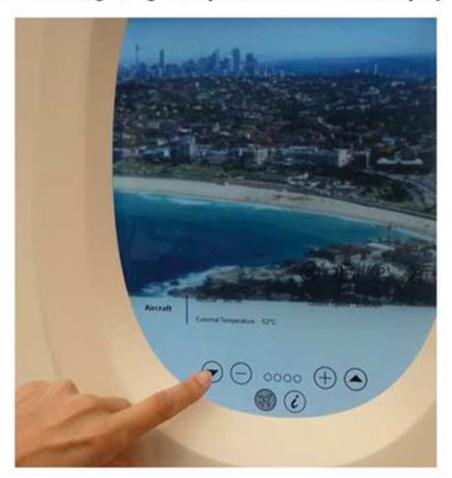
Composites Today - May 2016





Vision Systems Showcases Its Brand New Concept Of Electronically Dimmable Window Integrating Transparent Information Display



As a leader in solar protection systems offering bespoke solutions to the aeronautic market, Vision Systems will present its range of solar protection and wireless IFE systems dedicated to business aviation. The exhibited products include Vision Systems' latest innovation, a new concept of EDW integrating interactive content, high-end motorized shades and Electronically Dimmable Windows for business jets and VIP helicopters as well as jettisonable windows with composite frame.

Vision Systems' tailor-made motorized shades for one or two windows feature smooth or pleated fabrics, single or dual screens, light weight, acoustic insulation and a fine fit and finish. These long-life products include advanced motorization with brake, manual unlocking and anti-jamming devices and the integrated electronics allows easy installation and maintenance. Another particularity of these solutions is the synchronization of the shades, which reach the bottom all at the same time or by zone. Moreover, they are ready for the eventual integration of a dimmable window. Vision Systems' Electronically Dimmable Windows offer a sleek, elegant design adapted to the VIP style of business aviation and convey a peaceful atmosphere. They also enhance visual and thermal comfort, protecting from the sun while preserving the view, thus improving passenger flight experience.

They provide variable shading from fully clear to an extremely dark state (over 99.9% light blockage) and instant response time. They contribute to a reduction of air conditioning consumption as they default to their darkest possible state when the aircraft is on the ground, maximizing heat rejection and keeping the interior cooler. These solutions block more than 99.9% of harmful UV light, and their fabrication involves noise barriers to keep the cabin quieter. They can be controlled with a touch panel directly on the window, a personal tablet, or automatically with integrated light sensors. Vision Systems' EDW range also includes a partition solution for complete privacy. Besides, the EDW system interfaces with any Cabin Management System.

Furthermore, these solutions have no moving parts as the electronics is fully integrated, reducing maintenance costs and downtime. They come as a whole to replace the entire inside window comprising the casing and the dust panel. They are suitable for flat or curved surfaces (2D, 3D), plastic or composite glass. The installation is limited to a simple mechanical operation which is also very advantageous for the aftermarket.

Vision Systems' Electronically Dimmable Windows are already installed or will be installed in Dassault F5X (skylight), Epic E1000, Airbus Helicopters H175, RUAG's refurbished Falcon 900 and HondaJet HA-420. There are currently several new projects under way. Vision Systems also demonstrated its expertise as a system supplier recently in the marine market, by offering complete customized solar protection solutions for the ARROW460-Granturismo, a unique collaboration between Silver Arrows Marine and Mercedes-Benz Style.

Moreover, Vision Systems will showcase a jettisonable window. Vision Systems had announced last June that it had been selected by Airbus Helicopters to manufacture jettisonable windows for the H160. The windows made of PMMA are tinted and bonded on thermocompressed carbon frames developed in partnership with CT1. The project includes emergency mechanical unlocking systems, door seals and bad weather windows.

Vision Systems will also exhibit its cutting-edge wireless IFE system on PEDs dedicated to business jets, with Wi-Fi AVOD including "DRM approved" streaming, and various VIP options to enhance passenger satisfaction and comfort. The connectivity option provides internet access, email, video conferencing, and personal smartphone usage over VoIP with guaranteed voice quality (through Satcom 1 receiver). It offers the passengers the possibility to stay connected all the way from the office to the arrival terminal. Other options include cabin management, interactive moving map, or a switch on the tablet from the IFE media center to a Blu-Ray player connected to the box. The solution is customizable both in terms of functionalities and user interface design. Different configurations are possible with one single box and multiple screens: motorized displays up to 65", tablets or small screens with full HD. Software upgrade and audio & video content are rapidly downloadable by USB or on ground 3G connection. Innovative tablet holders will also be presented at the show.

The new concept of EDW integrating transparent display combines a dimmable system with a transparent video display offering interactive moving map and travel services, all together integrated in the aircraft window. The window can be controlled by the passenger through a transparent touchscreen incorporated into the glazing. The dimmable system is based on SPD-technology and the interactive display uses a transparent, flexible and thin color video screen. The benefit for the passengers is to regulate the light and heat, to interact with the moving map and to get more services, directly on the window. Vision Systems relies on its expertise in complete solutions of Electronically Dimmable Windows and IFE systems to offer a cutting edge interactive aircraft window that meets tomorrow's challenges in terms of passenger experience.

For more information: <u>www.visionsystems.fr</u>