

**FOKKER SERVICES LAUNCHES NEW SPD-SMART PRODUCT AT MRO EUROPE:
ELEMENT EDW – IMPROVING THE AIRLINE PASSENGER EXPERIENCE
BY CONTROLLING OUTSIDE ELEMENTS ENTERING THE AIRCRAFT CABIN**

Amsterdam, The Netherlands – October 21, 2016. This week’s MRO Europe conference and exhibition is the stage for the world premier of a new electronically dimmable window (EDW) system using Research Frontiers SPD-Smart technology. Fokker Services, a division of GKN Aerospace, launched “Element EDW,” a new electronically dimmable window system for commercial airliners. Developed in collaboration with Research Frontiers licensee InspecTech Aero Service, this “smart transparency” controls and manages both beneficial and undesirable outside elements coming into aircraft cabins through passenger windows.

Fokker’s SPD-Smart Element EDW dramatically improves the airline passenger experience, for all on board, by instantly and precisely managing the optimum amount of healthy daylight for passenger comfort and well-being, and rejecting uncomfortable heat and noise. The lightweight EDW has no moving parts and replaces components including window shades, “scratch panes” and other parts that require high maintenance.

This week at the GKN/Fokker MRO Europe booth, Fokker unveiled an Element EDW product designed for retrofit installation on airlines’ single-aisle and dual-aisle aircraft that are in-service. In a Fokker press release, the company indicated they are “planning first delivery of the product in Q3 of 2017.”



At 2016 MRO Europe, Fokker Services had the world premier of Element EDW – electronically dimmable windows for in-service commercial airliners. It has been designed for both single-aisle and dual-aisle aircraft.

For more information about Element EDW, we invite you to select the links below:

- [Fokker Element EDW press release](#)
- [Fokker Element EDW brochure](#)
- [Video of Element EDW for A320s, in operation, at MRO Europe](#)

Fokker's Element EDW, supplied by InspecTech Aero Service and using Research Frontiers SPD-Smart film technology, improves the cabin atmosphere by controlling outside elements coming through windows:



Daylight: At the touch of a button, passengers have the ability to precisely control the amount of light and glare coming through windows – from clear to darkly opaque and any level in between. They can continue to enjoy views by tinting their Element EDW to a comfortable level of light, rather than blocking their view with a shade. Aircraft cabin daylight management benefits all passengers, not just those seated at windows. Cabin-wide electronic control over all EDWs, operated automatically with photosensors or manually by the crew, results in the optimum level of daylight throughout the cabin at all times. Cabins equipped with Element EDWs are instantly transformed by optimizing healthy daylighting, enhancing views, and delivering a more open feeling with greater perceived space.

Light entering aircraft cabins through windows is a welcome cabin element – but only if it can be managed. Element EDWs provide the solution. Other outside elements coming through passenger windows – heat and noise – are unwelcome elements. OEMs and airlines make substantial investments in thermal and acoustic insulation materials that are integrated into the fuselage. However, the window openings have always been the “weak link” in limiting heat and noise entering the cabin. Until now. Element EDWs provide the solution.

Heat: Windows are the primary source of solar heat entering the cabin when the aircraft is on the ramp. The cabin becomes uncomfortably warm when on the ground, and passengers suffer. Element EDWs include transparent thermal insulation films, and provide welcome relief by delivering a cooler cabin. In addition to the thermal insulation layers, when the aircraft is parked, Element EDWs automatically switch darkly tinted, further increasing heat-blocking. No passenger or flight attendant actions are needed for this benefit.

Noise: Studies by NASA and others have demonstrated that windows are a primary source of noise entering an aircraft cabin. Passengers experience conscious and subconscious psychological and physiological distress. Element EDWs include innovative transparent acoustic insulation films, and these layers, plus the other films in the laminated panel, offer passengers a quieter cabin throughout the flight.

Element EDWs also offer a modern, aesthetically pleasing cabin interior. The design teams of Fokker Services and InspecTech Aero Service have developed an SPD-Smart EDW product that is easily integrated into the back of the cabin sidewall. This results in Element EDWs having a larger surface area than the window opening. When passengers view Element EDWs set to maximum darkness or intermediate tint levels, they perceive much larger windows. OEM and airline studies indicate that size matters – larger passenger windows are highly valued, and this Element EDW feature further improves the passenger experience.

About Research Frontiers Inc.

Research Frontiers (Nasdaq: REFR) is the developer of SPD-Smart light-control technology which allows users to instantly, precisely and uniformly control the shading of glass or plastic, either manually or automatically. Research Frontiers has built an infrastructure of over 40 licensed companies that collectively are capable of serving the growing global demand for smart glass products in automobiles, homes, buildings, museums, aircraft and boats. For more information, please visit our website at www.SmartGlass.com, and on [Twitter](#), [LinkedIn](#) and [YouTube](#).

For further information about SPD-Smart light-control technology, please contact:

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