

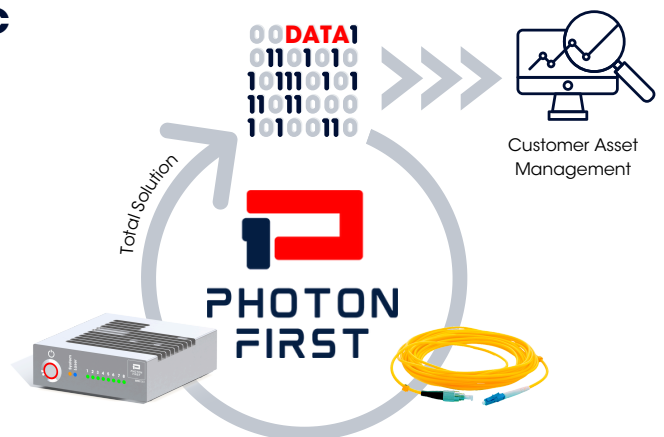


Looking for Advanced Aerospace Asset **Monitoring** Technology?

Traditional monitoring technologies often fall short in the demanding aerospace environment, for example within advanced composite materials. Whether dealing with constraints in dimensional limitations, extreme operating conditions, electromagnetic compatibility (EMC) issues, or the imperative for lightweight structures, conventional systems may not meet your needs.

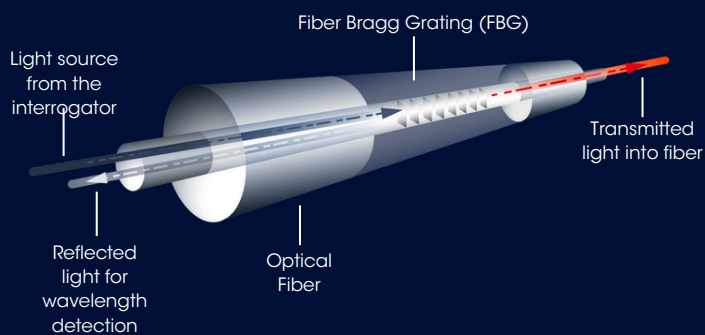
Introducing the **Solution**: Fiber Optic Sensing (FOS)

At PhotonFirst we develop Fiber Optic Sensing Solutions for complex measurement challenges. Our experience originates from 18 years working with this technology, shaping solutions for multiple applications. We provide a service that includes the development of technical concepts and prototypes, all the way through to the delivery of industrialized solutions.



The Optical Fiber Becomes The Sensor With FBG-based Technology

PhotonFirst interrogators send light into a fiber and capture it with sensors that reflect the light like a mirror. The light subsequently comes back and the change between the light sent out and the reflected light is translated into a value of measurement, such as temperature, strain, pressure or shape. This is done with the help of the photonics integrated chip (PIC).



Key Advantages of FBG Technology in Aerospace Applications

Simplified System Architecture

With multiple sensors in a single fiber, the amount of cabling and components required is drastically reduced, unlike conventional strain gauges. Simultaneously enabling the enrichment of data.

Efficient Sensor Installation

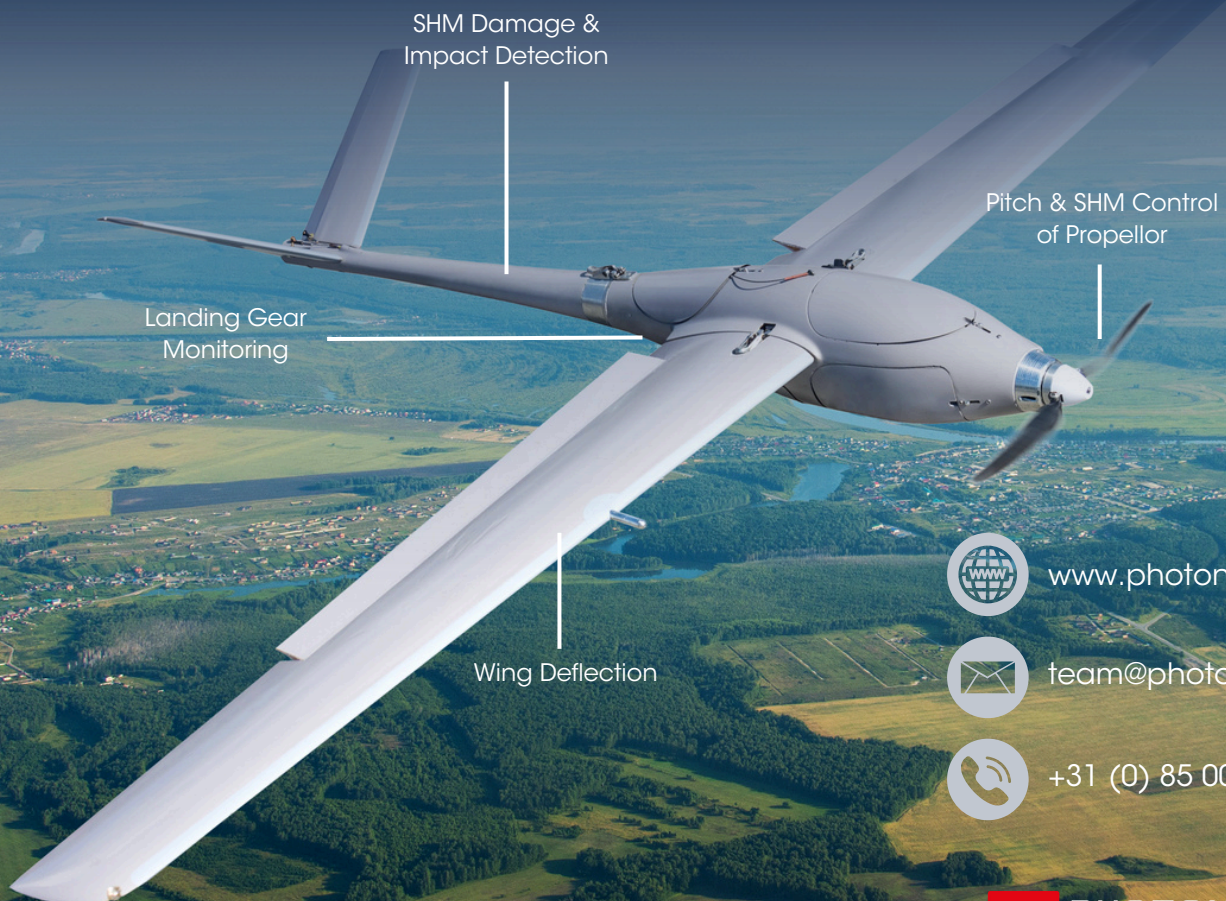
The time required to install sensors is significantly reduced with FBG sensors. This will minimize downtime during installation and maintenance.

Weight Reduction

Contribute to a lighter aircraft by decreasing the weight associated with sensor systems. Resulting in improved fuel efficiency and increased payload capacity.

Proven Track Record

PhotonFirst has experience in successfully applying FBG sensor technology on space launchers, civil aircrafts, military drones and across multiple military rotorcraft platforms.



www.photonfirst.com



team@photonfirst.com



+31 (0) 85 007 67 00

