Safer air travel: Laser air speed sensor

This invention will improve the safety of aeroplanes worldwide and could save the lives of countless people. It's a brilliant laser air speed sensor for both commercial planes or military.

INVENTION NUMBER: 10_2550

The Technology

Pitot Tubes are the current standard for aeroplane air speed sensors. Pitot Tubes depend on equipment that is prone to malfunction due to the need to maintain a clear channel/inlet. Aeroplanes currently deploy multiple redundant systems to avoid disaster; however, this does not address the underlying flaw of the sensor technology.

The COPLASS system is a laser based airspeed sensor for aeroplanes. It uses a laser to non-intrusively measure the airspeed of the flow between two points. COPLASS is not reliant on specific atmospheric conditions and does not require the introduction of any material to the airstream. This system provides a more robust and reliable method of sensing compared to current Pitot tube technologies.

COPLASS has the potential to improve the safety and efficiency of aeroplanes ranging from high performance military draft to mass transport commercial airlines. COPLASS has the potential to replace or complement the use of Pitot tubes, providing a simple, robust solution to flaws that have caused major aeroplane disasters.

Key Benefits
Simple Design
Improved Safety
Overcomes flaws in current standards
Uses optics and electronics rather than mechanical
Measurement rates up to 15 kHz
Measures speeds down to 5 m/s

Applications

- Commercial aircraft to improve safety
- Military aircraft to provide a more rapid speed measurement

The Opportunity

This technology is available for collaborative research opportunities. The technology is also available for licence to companies and individuals.

For more info contact:

Lisa Linssen  
Business Development Manager  
UNSW Innovations  

T: +61 2 9385 9813  
M: +61 (0) 448 060 622  
E: l.linssen@unsw.edu.au