



# WAN










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Swan International Services, based in Sydney Australia, announce commencement of Stage 2 of the Development Program for the 'Patent Pending' Airborne Windshear Detection System.

This stage of the Swan International Development will result in the design, manufacture and test of a number of prototype Windshear Detection Systems meeting the test requirements of Aviation Industry Standards.

The Development has recently been accepted for funding approval under the Australian R&D AusIndustry START Program. As such, Swan International is relocating to Research & Development facilities at Macquarie Campus, Sydney. The co-operative links between Swan International and the world recognised, Opto-Electronics Group at Macquarie University will assist this development program.

This unique, Australian developed technology is focused towards an Aviation Standard compliant Airborne Predictive Windshear Detection System for use in high end Business and General Aviation Aircraft. It is a novel application of modern Fibre Optic Technologies to an Avionics Application. Aspects of this Innovative Technology, for which US Patent Application is pending include:

-  Use of Current Technology Fibre Optic Components to give reliable system performance
-  Incorporating a Laser Pulse System in the 1550nm Eye Safe Band
-  Incorporating a Backscatter detector to detect response from a distance in front of the aircraft
-  Calculating the air velocity - some distance from the aircraft - by analysis of the backscatter
-  Continuous updating of both position and air velocity measurement
-  Calculating and display to the pilot of dangerous windshear
-  Small Cross-Section, Low Weight, capable of being powered by most aircraft systems

Windshears result from rapidly changing wind conditions. On approach to landing, a performance-increasing headwind may be replaced by a performance-decreasing tailwind. This forward looking windshear detector will warn a pilot that he is approaching a windshear hazard.

