When Every Decision Counts and Seconds Matter

LLWAS

LOW LEVEL WINDSHEAR ALERT SYSTEM

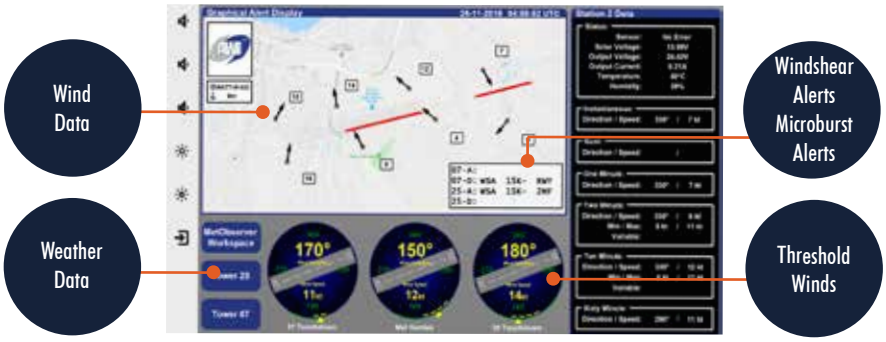
Weather plays a significant role in aviation safety and is regularly cited as a contributing factor in accidents or major incidents.

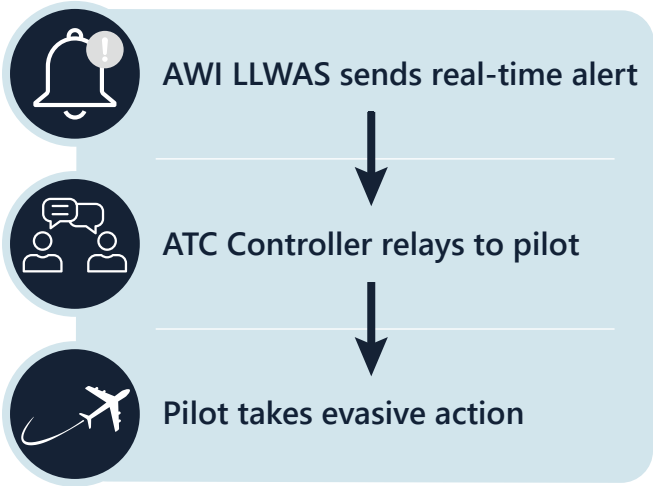
Windshear and microbursts are a hazard for aircraft on both takeoff and landing because they are near stall speeds. As the aircraft is close to the ground, there is little time to recover, making these among the most dangerous weather phenomena a pilot can encounter.

Windshear and microbursts occur when the wind changes more than 20 knots over a distance of 1 to 4 km (0.5 to 2.5 nm). These sudden changes in windspeed can lead to a loss of lift, leading to the most serious of consequences.

This risk is so severe that major research has been conducted by the U.S. Federal Aviation Administration (FAA) and U.S. National Center for Atmospheric Research (NCAR), leading to the development of ground-based warning systems called LLWAS. The NCAR Phase II and III Algorithm is in use at over 100 major airports in the United States.

There are hundreds of LLWAS systems in use at airports around the world. All Weather, Inc. (AWI) LLWAS systems are custom designed for each airport taking into account runway configuration, local weather conditions, terrain and obstacles and is available as a stand-alone system or as part of an integrated solution for windshear detection.





AWI allweatherinc
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Airports susceptible to windshear and microbursts:

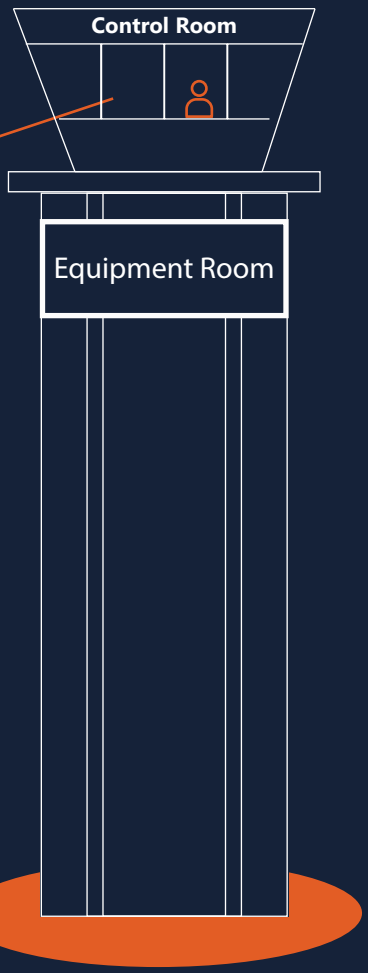
Any airport that has thunderstorms will be exposed to convective windshear.

Airports located near mountains will experience terrain–induced windshear from time to time.

Any airport near a coast can experience windshear due to sea breezes.

In drier climates, even a light shower (or virga) can produce severe windshear, so in some places, the convection does not have to be as strong as a thunderstorm.

AWI LLWAS Features

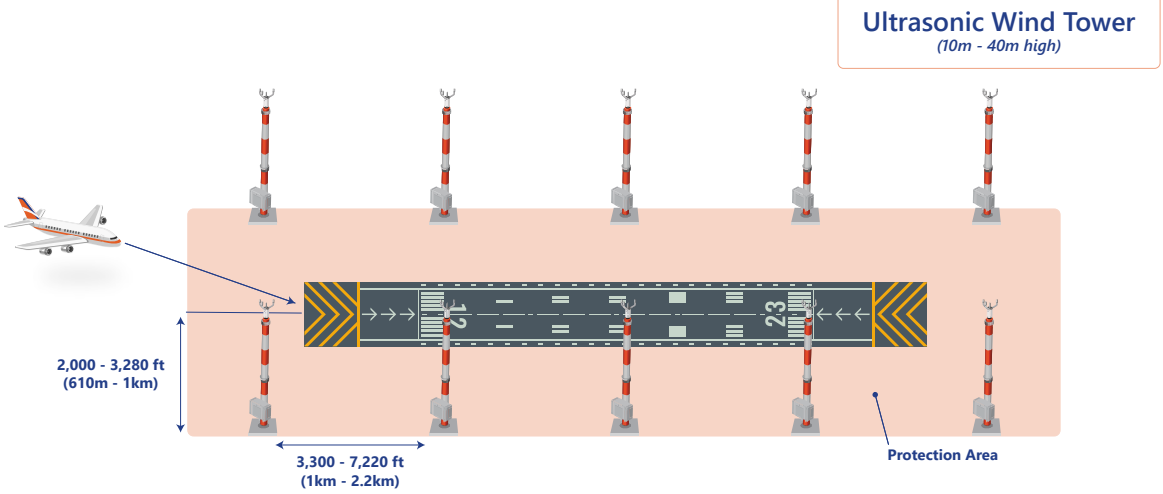


- Detects both low level windshear and microbursts
- NCAR Phase III Algorithm
- Probability of Detection (POD) > 90%
- False Alarm Rate (FAR) < 10%
- Detects changes in wind that the human observer cannot
- Provides real-time audible and visual alerts
- Provides information on windshear type, location, and intensity with an estimation of headwind loss or associated gain
- Sensors can be added to extend protection area as well as cover additional runways
- Single or redundant configurations available

Regulatory Compliance

ICAO/WMO Compliant

FAA Certified Algorithms



All Weather, Inc. is an ADB SAFEGATE Company
Contact an AWI consultant for all of your aviation needs.
T: +1.916.928.1000 | Email: info@allweatherinc.com | Website: www.allweatherinc.com

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