

IMS4 LLWAS

Low Level Windshear
Alert System



*Using the
technology
to increase
the safety*

IMS4 LLWAS

Low Level Windshear Alert System



FEATURES:

- UCAR Phase-3 LLWAS algorithm compliance
- Turn-key delivery from site survey and engineering to lifetime support
- Multiple sensor interfaces (modem, fiber optic, wireless)
- Standalone system or integrated within AWOS /AWDSS

Answering customers' needs, MicroStep-MIS presents a state-of-art top-quality Low Level Windshear Alert System, a considerably approaching technology mightily decreasing the riskiness of crucial flight phases of take-off and landing procedures.

The low level windshears with a gain or a loss & microbursts have become a highly considered threat for CAT III International Airport Hubs as well as non-CAT local airfields. All of these factors are targeted by the automatic, durable & reliable MicroStep-MIS LLWAS system.

Field measurement system

A low level windshear alert system contains multiple – at least 6 wind stations installed near the airport. As the windshear phenomenon requires unique measurement techniques across different airports, selection of proper sites and optimization of the algorithm are a crucial issue for the site surveying teams. Therefore, MicroStep-MIS avails its most experienced teams to provide turn-key solution proposals built specially to fit customers' needs and expectations.

IMS4 LLWAS Server

Standard COTS server or a dual hot failover cluster, the IMS4 LLWAS server collects measurements, performs the

validations and recalculations, runs the algorithm to detect the windshear, generates the alerts and distributes data and alerts to displays and 3rd party systems.

Also a more complex integration of LLWAS with IMS4 AWOS system is available bringing even more comprehensive, relevant & highly useful data to the service personnel allowing the airport team to significantly decrease the risk of a sudden disaster.

LLWAS Displays

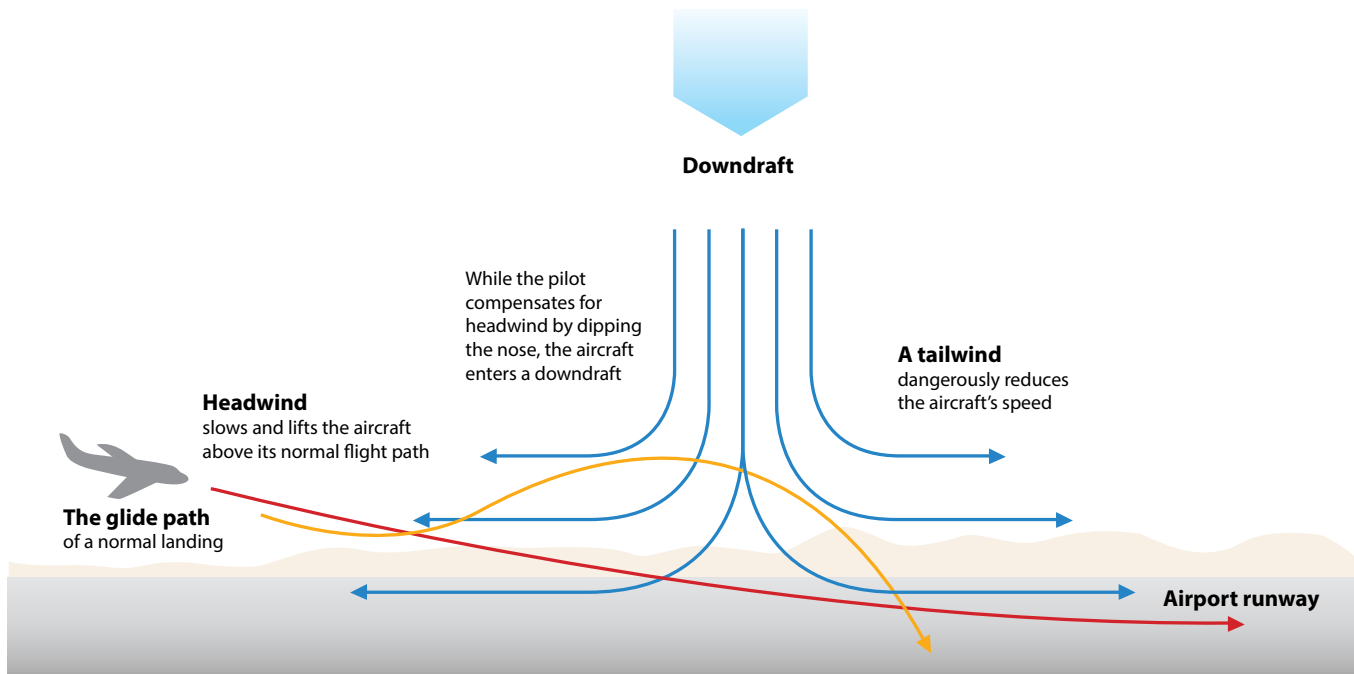
The displays of MicroStep-MIS LLWAS are optimized to provide optimal ergonomic view of all relevant alerts and data, and to provide all necessary functionality in a convenient way.



IMS4 LLWAS

Low Level Windshear Alert System

A low-level horizontal windshear scenario



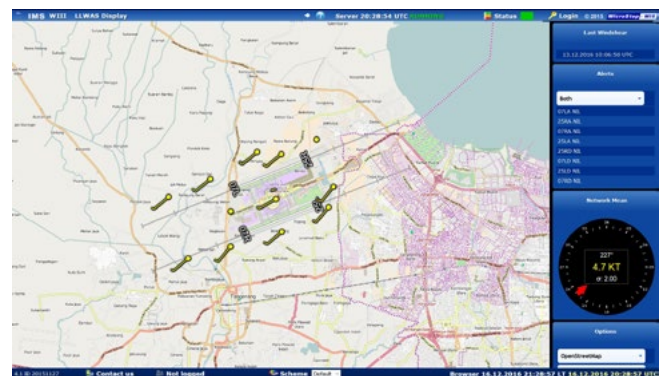
Integrated part of the Aviation Weather Decision Support System

IMS4 LLWAS makes the integral part of the Aviation Weather Decision Support System.

IMS4 application software platform

IMS4 LLWAS benefits from the long term development of the IMS4 application software:

- **Built-in web and application server:** an authorized user has access to all data, statistics and full functionality from any computer on the LAN/WAN / internet/VPN.
- **Configuration wizards:** web-based interface to the configuration data stored as XML files or database records. Station/sensor/variable metadata, communication settings, maintenance activities – all is easily configurable using menus, drop-down lists or standard textboxes.
- **Security:** The built-in security mechanisms provide user-configurable tools for limiting user access to particular system modules, stations or channels according to the permissions related to user names, user roles or IP addresses of remote users. t



System requirements

- Standard server or a dual hot-failover cluster
- Linux or Microsoft Windows 7/Server 2008 operating system
- Mozilla Firefox compatible browser supported

IMS4 LLWAS

Low Level Windshear Alert System

LLWAS scheme with 8 wind stations installed along the runway



Compliance with standards

- NCAR LLWAS Phase-3 algorithm (U.S. Patent 5,221,924, etc.)
- ICAO Annex 3 and 10 for Data Processing and Reporting Practices
- ICAO Annex 14 Aerodrome Design and Operations
- ICAO Doc 8896 for Aeronautical Meteorological Practices
- ISO 9001:2008 for quality assurance

Type Approval

- Civil Aviation Authority of the Slovak Republic certified IMS LLWAS to be used in civil aviation as an air traffic management equipment



Contact us for more information

Cavojskeho 1, 841 04 Bratislava, Slovak Republic
tel.: +421 2 602 00 100, 111, fax: +421 2 602 00 180
www.microstep-mis.com, info@microstep-mis.com

MicroStep - MIS
Monitoring and Information Systems

