AWAIRE™
WIND ANALYSIS
AND FORECAST SYSTEM

ALL-WEATHER
WIND-RELATED OPTIMIZATION
OF DEPARTURE AND LANDING OPERATIONS

Scintec
**KEY BENEFITS**
- Less flight delays
- Less flight cancellations
- Enhanced transportation capacity
- Increased safety
- Improved passenger comfort

**KEY FEATURES**
- Decision making tool for all wind-related airport operations
- Wind and wind shear alerts
- Analytic and prognostic capabilities
- Multiple sensors combined (e.g., wind profilers, lidars, radars and LWMAS)
- Algorithms and artificial intelligence for improved information content and quality
- Decision-supporting visualization of current, historic and prognostic data

**AWAIRe**
- Airport Systems
AWAIRE is a new hardware, software and service package which is designed to provide the most complete, accurate and reliable information about surface and upper winds and to bring this to airport controllers, managers, meteorologists and pilots.

AWAIRE uses a variety of the most advanced sensing technologies to continuously measure all relevant wind and turbulence parameters in the area of the departure and climb paths with high distance resolution, precisely and in near real-time. This includes wind speed and direction relative to the airplane as well as both, the turbulent and non-turbulent types of wind shear. The selection of adequate and complementary sounding technologies results in an operability at any weather condition, including low clouds and precipitation.

AWAIRE, however, is much more than just measurement and display. It generates a database which can be used for better analytics and prognostics of the meteorological parameters at exactly the airport location. Unlike with conventional systems, multi-dimensional algorithms and the trained artificial intelligence finally combine the output data of the various sensors and evaluate them synergistically. This significantly increases the content and reliability of the generated decision supporting information and configurable alerts.

Finally, AWAIRE comprehensively displays all information in an intuitively and easily understandable visualization with configurable tools for decision making during approach and departure procedures. Past occurrences can be tracked. Airports with multiple runways are fully supported.

With the AWAIRE Temperature upgrade, air temperature in the climb path is equally provided. This allows the pilot to determine the maximum carrying load of the airplane and to make the departure and climb safe and comfortable.

AWAIRE PathRadar and PathLidar continuously sense into the direction of the glide and climb paths and can detect microburst with a response time of seconds in conditions with precipitation (PathRadar) and without precipitation (PathLidar). A conventional LLWAS (Low Level Wind Shear Alert System) can also be integrated.

AWAIRE PROG and AWAIRE PROG FOG add the nowcast capability for a period of up to 30 minutes and predict changes of wind speed and direction, tail wind, crosswind, wind shear, turbulence and visibility in fog.

AWAIRE PROG and AWAIRE PROG FOG can be used to optimize runway selection and use and increases the number of departures and landing operations in a certain time.

AWAIRE WRF uses the results of a global numerical forecast model and combines them with the locally measured date base. In this way it extends the forecast period of AWAIRE PROG to six hours and further improves the efficiency of airport operations.

The set of sensors actually installed and used can be selected to fit the geographical, climatological, and operational specifics. Software, sensors and services are all provided by Scintec, the technology specialist in this sector. This makes the information output of AWAIRE very reliable and the acquisition, installation and maintenance of AWAIRE surprisingly economical.

AWAIRE can also be operated as a data engine which interfaces the results of the data analysis and forecast to a variety of third party display software.

Consult Scintec and see how your airport operations can hugely benefit from AWAIRE.
Unlike conventional systems, AWAIRE combines the data of multiple remote sensing instruments and performs a synergistic evaluation using algorithms and artificial intelligence. In this way, the provided set of information is more extensive, accurate and reliable in any weather condition.