Vaisala AviCast® Lightning Alert System

Alert Messages
- Email and SMS/Text
- Web-based display provides on screen warning rings – change colors
- User can configure their own warning/ring preferences
- Standard Messages:
  - **Information:** lightning detected within 30 nm of airport
  - **Warning:** lightning detected within 15 nm of airport
  - **Alarm:** lightning detected 5 nm of airport
  - **All Clear:** message sent when lightning activity has ceased for 15 minutes in the warning area.
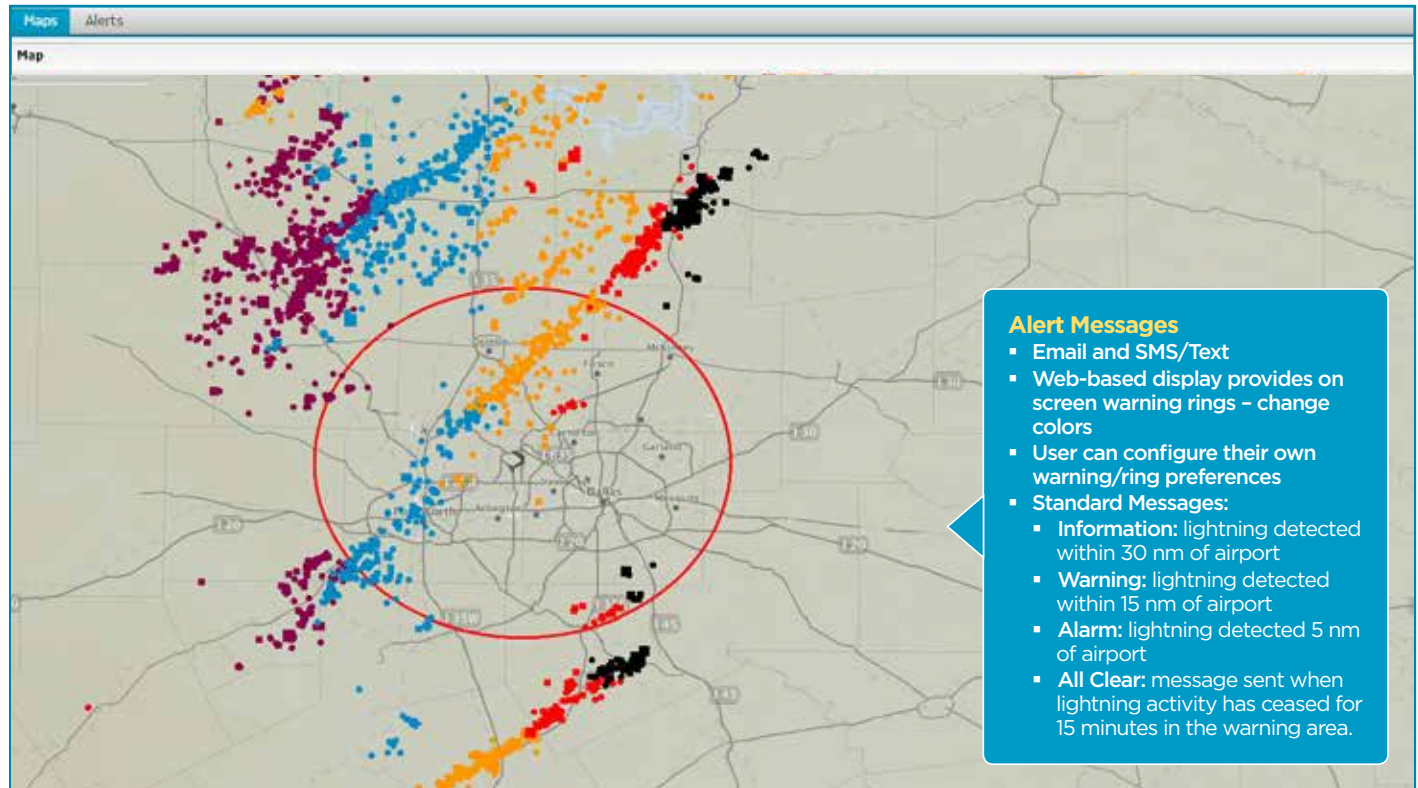
Warning rings turn red as lightning approaches the airport

Thunderstorms impact every airport around the world, and lightning strikes from thunderstorms are the single most dangerous threat to personnel safety. While most individuals are aware of the risks ground lightning strikes pose, few understand that most developing storms begin with lightning in the cloud, which quickly results in lightning striking the ground.

Warning personnel before safety is compromised is the key to maintaining normal operations and ensuring a safe work environment. Vaisala's AviCast Lightning Alert System is able to detect total lightning, which is comprised of cloud lightning and cloud to ground lightning. Once lightning is detected, the system sends alerts, warning of the ensuing danger. As the global leader in lightning science and detection, trust Vaisala to keep your operations moving and secure the safety of your workers.
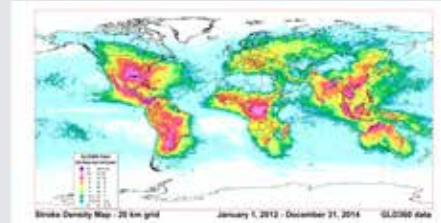

Benefits

- Total Lightning Warning system alerts on both cloud lightning and cloud to ground lightning
- Same high quality data trusted by the United States Federal Aviation Administration(FAA)
- Proven, accurate lightning data which allows maximum airport operations while minimizing safety risks
- Web-based display provides information you need without any hardware or equipment investment

Additional Benefits

SUPERIOR ACCURACY AND COVERAGE

AviCast uses Vaisala's breakthrough Global Lightning Dataset (GLD360) technology, providing lightning data coverage and accuracy that far surpasses single-point lightning sensors without installation or maintenance costs. GLD360 provides a level of performance, redundancy and reliability that is unmatched over continental-scale and ocean areas. In addition, the data is worry-free with Vaisala's continual maintenance and development of the GLD360 network.

WEATHER AND CLOUD REPORTING

Fully compliant with the International Civil Aviation Organization (ICAO) requirements, Vaisala AviCast issues present weather thunderstorm alarms when lightning is at, or in the vicinity of, the aerodrome. These alarms help meteorological observers better understand when to enter the "TS" or "VCTS" present weather code within METAR, SPECI, and local reports. The alarms also help the meteorological observer better understand when to report the "CB" cloud type in METAR, SPECI, and local reports.

AIRPORT TERMINAL APPROACH AND DEPARTURE

The AviCast display helps air traffic controllers and pilots avoid flying through hazardous thunderstorms in the terminal approach and departure areas. These hazards include severe turbulence, windshear, hail, and lightning strikes to airplanes. Alarm polygons are configured to automatically alert Air Traffic Controllers and pilots to thunderstorm hazards in airport approach and departure corridors.

LOW LEVEL WINDSHEAR

Thunderstorms as far as tens of kilometers away can send straight-line windshear events (gust fronts) through an airport. AviCast provides critical information on thunderstorm identification, movement, and future location to help air traffic controllers anticipate potential low level windshear hazards at the airport. Alarm radius distances are optimized to provide low level windshear watches when thunderstorms are close enough to the airport to produce low level windshear. AviCast can be integrated with the Vaisala AviMet® Low Level Windshear Alert System (LLWAS) to expand coverage beyond the aerodrome.

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