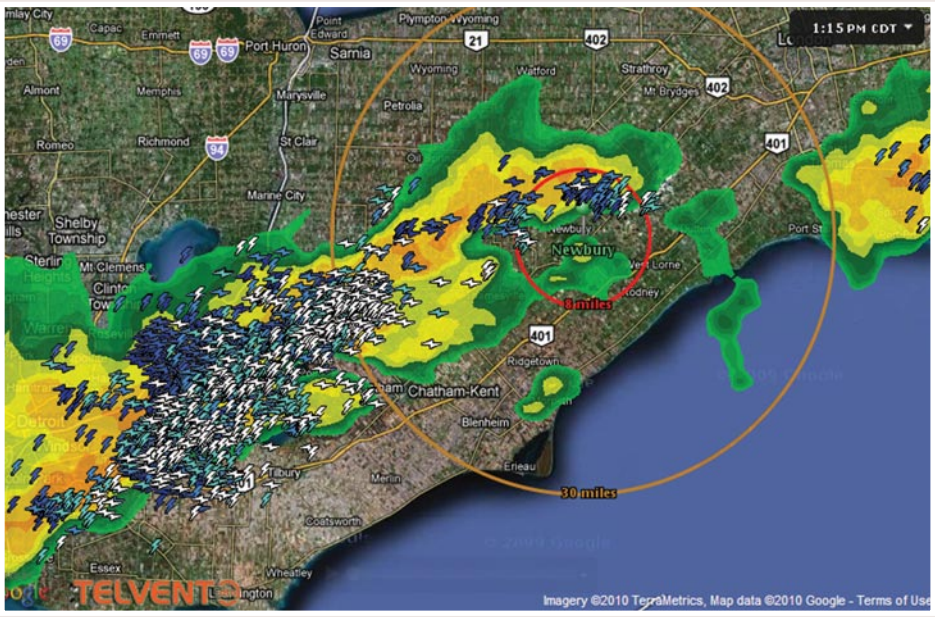
Using a web-based weather service

Editor's note: *Don Leick is a senior product manager for Telvent and is responsible for all aspects of WeatherSentry.*



LIGHTNING STRIKES, damaging gusts of wind, players suffering heat strokes … out on the turf, you have probably seen it all. Severe weather is a force to be reckoned with and not one to leave to chance; today's sophisticated weather technology can help ensure the safety of your venue and the execution of your operations.

This is why thousands of high schools and colleges rely on the same level of weather service used by professional sports organizations. To monitor severe weather events, they use MxVision Weather Sentry Sports Edition, a web-based weather service that provides subscribers forecasting data. The user defines parameters at set up and then with a few clicks the system delivers color-coded instant go/no go decision recommendations during extreme weather events, which might eliminate having to second-guess the severity and scope of an approaching storm. The system also sends instant alerts both to computers and mobile devices when dangerous weather patterns occur within a previously defined parameter.

Like most high schools in Texas, Northwest High School's operations are heavily impacted by lightning, severe storms, tornadoes and strong winds. With 3,200 students – 1,200 of which are involved in outdoor activities – the school needed a weather information system that would provide critical alerts for all of its locations. So the school subscribed to MxVision Weather Sentry including Lightning Manager, which offers reliable advanced warnings by using real-time lightning data; there is no delayed reporting.

The system proved its value a week after being implemented. Scott Fletcher, the school's head athletic trainer, received a mobile alert on his cell phone for lighting approaching their location. Both the freshman football team and the high school band were called to safety. "Less than 5 minutes after we had everyone inside and safe, our band director witnessed a lightning bolt hit the parking lot where the band was practicing. In light of this event, we already consider the system as having paid for itself, as it prevented injury to our 150 band members."

A new IPhone application sends alerts and displays current conditions based on your GPS position when travelling and during away games. For example, athletic trainers can receive instant alerts via text message if their team is in the path of a storm, leaving no one to wonder if a severe weather alert heard on radio applies to their specific location on the road. Of course, staying on top of changing weather conditions also informs turf maintenance decisions. Penn State University has more than 100 acres of outdoor fields requiring regular maintenance. Accurate forecasts for this specific location help assistant field supervisor Herb Combs better manage staffing and maintenance activities. On windy days, he reschedules chemical applications and when rain is approaching, fertilizer applications and field line painting are cancelled, all without having to worry about accruing unnecessary delay due to vague or inaccurate forecasts.

Besides safety and turf maintenance, MxVision Weather Sentry can be a useful tool in helping to prevent heat strokes, as schools can set alerts for heat indexes according to their heat policy. Even when the outdoor sports season is over, the system continues to be indispensible: School administrators use it to make better decisions about declaring snow days or evacuating the building complex due to approaching severe weather.

While the website features a recently redesigned, easy-to-use interface and unique visualization, subscribers also have around-the-clock online access to a team of 50 meteorologists. "We typed in our question regarding a major lightning storm, and within 15 minutes we had an answer, letting us know what's going on," explained Todd Kiefer, licensed athletic trainer for the Red Oak Independent School District in Texas. "This confirmation helps us with our decision-making process." ■

Don Leick has more than 25 years experience in software and technology companies.