

Maryland SoccerPlex Relies on Lightning and Severe Weather Alerting System to Help Keep Athletes Safe



 WeatherBug® Schools

GOALS

Install a trusted lightning detection and severe weather notification system.

The staff sought a turn-key solution that would be reliable and provide accurate weather notifications with no false alarms

Develop a faster way to get notification to all the visitors across their 160-acre complex to a safe location.

Due to the size of the complex and limited staff, going field to field was no longer a safe method to notify officials, players and parents as dangerous weather approached.

Provide the safest and best field conditions possible to visitors and guests.

Better field conditions reduce injuries and create a better environment for players.

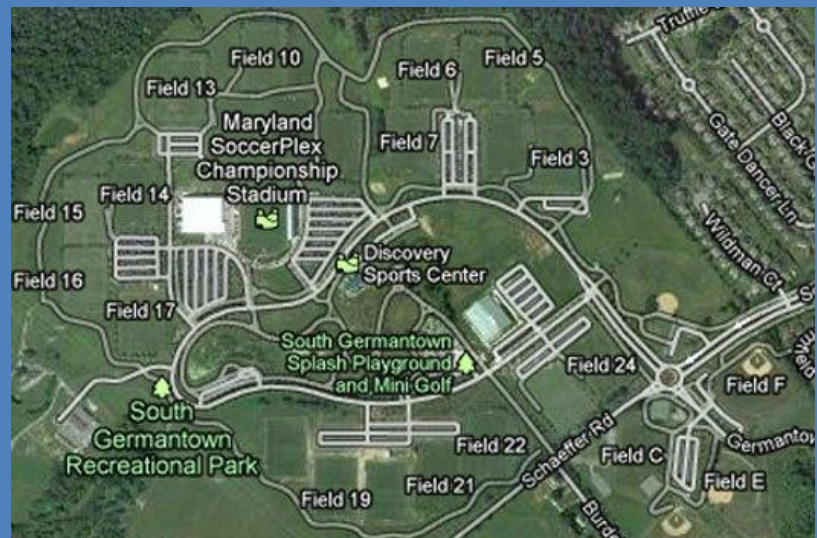
SOLUTION

- WeatherBug Weather Station
- WeatherBug Total Lightning Solution
- Outdoor Alerting System
- StreamerRT Real-Time Visualization
- LCD Weather Display
- WeatherBug Protect

CUSTOMER PROFILE

The Maryland SoccerPlex in Boyds, Md. (www.mdsoccerplex.org) is one of nation's premier soccer facilities. Located within the South Germantown Recreational Park in the suburbs of central Maryland, the 160-acre complex includes the 64,000 square-foot indoor Discovery Sports Center, 22 immaculately groomed outdoor soccer fields, a championship outdoor stadium with seating for more than 3,000, and three lighted, synthetic turf fields.

Throughout the year, the facility holds thousands of soccer and lacrosse league games and tournaments – as well as camps and training programs, flag football leagues, rugby, field hockey and more – for players of all ages and abilities. More than 650,000 players and spectators visit the SoccerPlex each year to participate in sports, enjoy Fourth of July fireworks, and watch local, regional, national and international teams compete. From U.S. Olympic qualifiers to the U.S. Youth Soccer National Championships, the SoccerPlex is a popular destination for athletes and spectators alike.



The Maryland SoccerPlex covers 160-acres and includes over 20 fields and an outdoor Championship Stadium, the Discovery Sports Center, Splash playground and Mini Golf area.

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Field Maintenance with Jerad Minnick
MARYLAND SOCCERPLEX
SPORTS TURF MANAGER



The WeatherBug Weather Station provides valuable detailed weather information that helps keep the SoccerPlex's many fields in top shape.

- Mobile apps make it possible to constantly monitor turf and field conditions at the Soccerplex.
- Factors such as wind speed are used to determine when to apply grass seed, fertilizer and pesticide. It can take 12-16 hours per application, so consistent wind speed is important. In the summer, treatments can evaporate if conditions are not ideal.
- Accumulating precipitation is another helpful tool Minnick uses to determine if fields should remain open.

Says Minnick, "It is important to know 'microclimate' weather information right at the SoccerPlex to make better decisions. Knowing the exact temperature is important— if it is under 35 degrees, we can't use water on the field to get rid of frost, but we can if it is 36 degrees or higher. I have all of the information on my phone to make these and other decisions."



CHALLENGES

The SoccerPlex typically hosts nearly 300 events each weekend during the fall and spring. During these peak times, and throughout the year as well, lightning and severe weather pose a threat to players, coaches and spectators – especially those on distant fields who may not receive warnings of incoming dangerous conditions.

System reliability was critical for the SoccerPlex. They had another less robust weather monitoring and alerting system that did not meet their expectations. At times, to ensure fields were clear, complex officials would drive from field to field to tell visitors to seek proper shelter.

With fields located up to a mile away, SoccerPlex officials knew they needed a new facility-wide alerting system to help keep visitors and staff safe in all areas of the park. "Safety is everything. We aim to reduce injuries and create a positive experience for our visitors by providing the safest possible environment," says Trish Heffelfinger, Executive Director of the Maryland SoccerPlex.

"People respect the horn and the technology"

– Trish Heffelfinger
Executive Director, Maryland SoccerPlex



THE SOLUTION

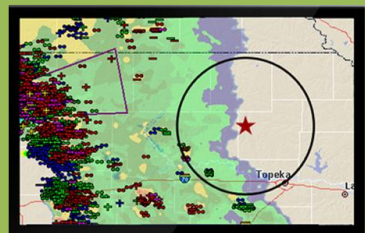
The Maryland SoccerPlex installed the WeatherBug Outdoor Alerting System in August 2011. The solution includes:

- A weather station that measures conditions including temperature, wind speed and direction, precipitation, humidity and more. The station also calculates heat index.
- A lightning sensor that detects both cloud-to-ground (CG) and in-cloud (IC) lightning strikes. Total lightning detection is critical for advanced prediction and forecasting of severe weather.
- Two outdoor alerting systems that produce a high-decibel, attention-getting signal when lightning approaches within a predefined radius. At the SoccerPlex, the outdoor alerting system sounds automatically when lightning is detected within 10 miles.
- StreamerRT, a web-based weather visualization application combining current data from the facility's weather station with neighborhood-level weather information from the Earth Networks - WeatherBug network of more than 8,000 industrial-grade weather stations.



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THE SOLUTION (CONT)

- An LCD Weather Display at the front desk showing the current temperature, three-day forecast, weather camera images and radar.
- Mobile alerts, mobile phone and tablet applications deliver alerts to SoccerPlex staff on their phones.
- In the office, Alert Beacons activate when lightning approaches within a 15-mile radius – providing advanced warning of impending severe weather conditions.

The Outdoor Alerting System, StreamerRT and mobile alerts are enabled by the on-site lightning sensor that works in conjunction with Earth Networks Total Lightning Network™, which is the largest and most advanced lightning detection network for severe weather detection and warning. Importantly, the network detects both in-cloud (IC) and cloud-to-ground (CG) lightning. IC lightning serves as a precursor to severe weather, such as heavy rain, large hail, dangerous cloud-to-ground lightning strikes, tornadoes and downburst winds.

When lightning rates exceed a “severe” threshold there is an increased threat of severe weather. As a result, Dangerous Thunderstorm Alerts, in addition to watches and warnings from the National Weather Service, are delivered to users via messages to mobile phones.



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– Trish Heffelfinger
Executive Director, Maryland SoccerPlex

Results to Date

Soon after installing the WeatherBug Outdoor Alerting System, SoccerPlex officials knew they had a trusted and stable solution in place. Horns blasted to alert visitors during the August Cup Soccer Tournament during Hurricane Irene, and again during intense Labor Day storms that required games to be cancelled. As storms moved through the area, staff used custom views in StreamerRT to monitor approaching lightning, storm cells and received critical breaking severe weather alerts on their mobile phones.

“The horn alerting takes the onus off staff to inform visitors to seek shelter,” says Heffelfinger. “During a game, everyone is looking down, and not up at the skies at the weather. Parents are watching their kids, referees are watching the game, and players are keeping their eye on the ball – and no one wants the game to be interrupted. But people respect the horn and the technology.”

As an added benefit, the horns can be heard through the complex, on all fields and multiuse paths, outdoor pools, as well as in parts of the surrounding communities. At the Discovery Sports Center, visitors appreciate the WeatherBug LCD Weather Display located at the front desk. The display provides at-a-glance information of weather conditions right at the Center’s welcome desk.



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