

MARYLAND SOCCERPLEX RELIES ON LIGHTNING AND SEVERE WEATHER ALERTING SYSTEM TO KEEP ATHLETES SAFE



The Maryland SoccerPlex is full of activity with thousands of soccer and lacrosse league games and tournaments, camps, training programs, flag football leagues, rugby and field hockey games happening all year long for players of all ages and abilities. More than 650,000 players and spectators visit the SoccerPlex annually to participate in sports, enjoy 4th of July fireworks, and watch local, regional, national and international teams compete. From US Olympic qualifiers to the US Youth Soccer National Championships, the SoccerPlex is a popular destination for athletes and spectators alike. The mammoth athletic complex covers 160 acres and includes over 20 fields and an outdoor Championship Stadium, the Discovery Sports Center, Splash Playground and Mini Golf area.

SAFETY FIRST

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 previously 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.

AN AUTOMATED TURNKEY SAFETY SOLUTION FOR A LARGE SCALE OUTDOOR ATHLETIC COMPLEX

The Maryland SoccerPlex installed a comprehensive suite of weather sensors and tools in August 2011 to help them manage their robust outdoor complex. Their solution included:

- **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.
- **A web-based weather visualization application** combining current data from the facility's weather station with neighborhood-level weather information from the Earth Networks proprietary network of more than 12,000 industrial-grade weather stations.
- **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.
- **Indoor, alert beacons** activate when lightning approaches within a 15-mile radius – providing advanced warning of impending severe weather conditions to internal operations staff.



PROVIDE THE SAFEST AND BEST FIELD CONDITIONS AND EXPERIENCE POSSIBLE TO VISITORS AND GUESTS

OVERVIEW

The Maryland SoccerPlex in Boyds, MD is one of nation's premier soccer facilities. Located within the South Germantown Recreational Park in the suburbs of Washington, DC, 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.

CHALLENGES

Due to the size of the complex and limited staff, going field to field was no longer a safe and efficient method for operations to notify officials, players and parents of impending severe weather.

SOLUTION

A trusted lightning detection and severe weather notification system made up of a comprehensive suite of weather sensors and tools designed to detect severe weather, alert visitors when severe weather is imminent and allow operations staff to prepare field conditions before and after the storm.

The Outdoor Alerting System, weather visualization application and mobile alerts are enabled by the on-site lightning sensor that works in conjunction with Earth Networks Total Lightning Network, which is the world's 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.

WHY IT MATTERS

Soon after installing Earth Networks severe weather monitoring and detection technologies, 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 canceled. As storms moved through the area, staff used custom views in their weather visualization tool to monitor approaching lightning, storm cells and received critical breaking severe weather alerts on their mobile phones. 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 Earth Networks 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.

"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.

RESULTS

A reliable turn-key solution that provides accurate weather notifications without false alarms and successfully alerts all patrons when it's time to seek shelter. Advanced warning also allows operations to determine and plan for field conditions to reduce injuries and create a better environment for players.



The horn alerting takes the onus off staff to inform visitors to seek shelter. 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.



– **Trish Heffelfinger**, Executive Director, Maryland SoccerPlex

