

## WEATHER MONITORING FOR SPORTS TURF MANAGERS

An increasing number of sports turf managers are using weather stations to correlate weather conditions and events with turf disease, says Paul Gannett, Onset product marketing manager. For example, many turf managers are concerned about pythium, which can occur during periods of sustained high temperature and humidity. Weather stations are used to identify high-risk periods for this and other diseases, so that chemicals are applied when they will be most effective and without risking the health of the athletes. Turf managers are also using weather stations to record the various weather parameters necessary for calculating growing degree-days or evapotranspiration, as well as for monitoring soil temperature and moisture.

"I'd say that the most significant advance from Onset contributing to greater ease-of-use is smart sensor technology, which our HOBO Weather

Stations and Micro Stations are based on," Gannett says. "Smart sensor technology allows turf managers to plug in any combination of research-grade sensors, which are automatically recognized by the station without complex wiring, programming, or calibration requirements. The user has total flexibility in terms of mixing and matching smart sensors in order to monitor critical site-specific conditions. For example, it might be important to monitor soil moisture at various depths, and soil temperature just below the surface. The weather station would allow the user to plug in these sensors and the logger will recognize them and record and report the data in the correct units.

"We have also simplified power requirements. Our stations are battery-powered which enables turf managers to deploy them anywhere without having to use large battery packs, solar panels, or run wires for AC power."

Regarding data retrieval, Gannett says, "Today, turf managers have a range of options. Many are attracted to our new wireless radio modem, which enables users to automatically retrieve climate data on their desktop from multiple HOBO weather stations deployed up to 5 miles away. The modem uses 900MHz spread-spectrum technology so no license is required, and has the added advantage of being battery powered so no solar panels are required.

"Of course, turf managers who don't opt for wireless communications are free to take a laptop or handheld out to the monitoring sites in the field and offload data there, or bring the logger back to an office PC for offload.

Onset Computer Corp./508-759-9500  
For information, circle 098 or see <http://www.oners.ims.ca/5061-098>



## EXPECT MORE from Your Weather & Turf Management Systems

LIGHTNING

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LEAF WETNESS / SOIL MOISTURE / WEATHERBUG STREAMER / E.T. CONTROLS

**LIVE WEATHER**

FROM: LIGHTNING STADIUM

TEMP: 65 F      TEMP RATE: +1.3 F/hr

WINDS: 5mph ENE

HUMIDITY: 65%

RAIN RATE: 0.00 in/hr

DAILY TOTAL: 0.02 in      MONTHLY TOTAL: 3.41 in

**AREA WEATHER**

Station Name	Off Time	Distance	Temp	Winds
Maryland Science Center	2:40	96 miles	66	ENE 2mph
Francis Scott Key ES/MS	2:41	2.04 miles	64	E 5mph
Morrell Park School	2:38	2.78 miles	65	ENE 3mph
Lakeland ES/MS	3:42	3.41 miles	65	E 4mph

**LOCAL FORECAST**

FOR: Baltimore, MD

**Today**  
Increasing clouds. Highs in the lower 90s. Light winds.

**Tonight**  
Occasional showers. Not as cold with lows in the lower 60s. Southwest winds 10 to 15 mph. Chance of rain 50 percent.

**Friday**  
Cloudy with showers likely. Highs in the upper 60s. Southeast winds around 10 mph. Chance of rain 70 percent.

**Friday Night**  
Cloudy. Showers likely in the evening, then a chance of showers after midnight. Lows in the mid 50s. East winds around 10 mph. Chance of rain 60 percent.

**HISTORICAL OBSERVATIONS**

DAILY DATA +

MONTHLY DATA +

STATION GRAPHS +

**LOCATION**

LIGHTNING STADIUM      PRACTICE FIELD

**STADIUM CAMERA**

New Laptop: 28.11'    30 Day    365 Day

**LOCAL RADAR**

Doppler Radar    WestWindBug

Light    Heavy    Intensity    Heavy    4.00004 KBT

Bounce    Zynabite

Additional Radar/Sat

SeaWIS Radar    National Radar  
SeaWiFS SST    National SST  
SeaWiFS CHL    National CHL  
SeaWiFS CO2    National CO2  
SeaWiFS Chlorophyll    National Chlorophyll  
SeaWiFS Temperature    National Temperature

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### WeatherBug offers...

- 27 weather data parameters from your site
- Active alerts based parameters you define
- Composite Maps that include current weather, current weather contour, NEXRAD radar, current satellite info, and lightning for better analysis and forecasting
- Historical data
- Lightning forecasts and strikes data

...all on one easy-to-use web interface that can be accessed by any PC with an Internet connection.

WeatherBug, owner and operator of the largest weather network in the world, is proud to offer the most comprehensive weather and turf management solution available.

Call us today to learn more about the cost-effective program used by NFL and MLB franchises to better manage their venues. It will change the way you operate your facility.

Contact Stuart Margel at 1-800-544-4429, ext. 1635 or e-mail [smargel@aws.com](mailto:smargel@aws.com).

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