

# MORRISTOWN-BEARD SCHOOL FULLY INTEGRATES WEATHER SOLUTIONS TO ENHANCE STEM LEARNING & STUDENT SAFETY

Morristown-Beard School (MBS) is an independent, co-educational day school serving students from over 90 communities and nine counties in northern New Jersey. In addition to a faculty of 92, there are 572 students in grades 6-12, with an upper school enrollment of 423. The beautiful 22-acre campus in Morristown features an open campus is also home to 21 Varsity teams and 17 middle school sports programs. According to upper school science teacher, Jeff Yuhas, MBS is a school that encourages students to “find their own path and pursue their own interests.”



## CONFRONTING ALL THE CHALLENGES OF WEATHER

MBS had two main weather-related challenges. The first is improving student engagement with STEM concepts. The second is the dangers of severe weather. The state of New Jersey experiences a wide variety of severe weather events throughout the year. Whether it is a sudden severe thunderstorm, a paralyzing blizzard, or a devastating hurricane; the Garden State doesn't have a season without the possibility of a big weather event. With an open campus and plenty of outdoor sports programs, MBS needed an automated way to alert coaches, student-athletes, and visitors of incoming severe weather, since manually going out and rounding up teams took valuable time and put the staff at risk.

## FINDING THE PERFECT SOLUTION FOR INTEGRATING WEATHER INTO THE CLASSROOM

MBS installed an Earth Networks Weather Station on top of Beard Hall when previous Earth Networks user Jeff Yuhas came to the school to teach science. From there, the school continued to add Earth Networks weather solutions until they became the most weather-advanced campus we serve. Some of the most important pieces of equipment they utilize include an automated Outdoor Alerting System to safeguard student-athletes, staff, and visitors, WeatherSTEM Scholar meteorology-based weather lessons, and Sferic Maps, which students and staff use to visualize and forecast weather. Combined with a brand new math and science facility, MBS students are now fully prepared to tackle the largest STEM challenges of the 21st century.

## WHY IT MATTERS

It's one thing to teach science. It's another to foster a real connection between the science of the real-world and facts in a textbook. With the WeatherSTEM Scholar education platform supporting their STEM curriculum and access to Earth Networks meteorological support, the students at MBS get exposed to a lot more than your typical science studies. From building their own weather station to presenting at the American Meteorological Society's WeatherFest event and Annual Meeting, the students at MBS are better prepared for college and beyond. And when they are outdoors playing sports, lounging or changing classes, they see the benefits from the Outdoor Alerting System firsthand as it helps protect them from the threat of lightning. Students aren't the only ones who appreciate protection from New Jersey's sudden thunderstorms. Parents, coaches, the nearby community and visiting schools also appreciate the benefit of being protected with an automated alerting system based on the science of total lightning detection while they are in the coverage area.

# LEADERS IN CAMPUS-WIDE WEATHER INTELLIGENCE

## OVERVIEW

The Morristown-Beard School has used a wide variety of Earth Networks solutions to enhance STEM education and protect students from severe weather like sudden thunderstorms.

## CHALLENGES

Enhance student engagement with STEM subjects and keep students, athletes, staff, and visitors safe from severe weather during outdoor athletic events as well as day-to-day activities.

## SOLUTION

Overall solution complete with WeatherSTEM Scholar, an Outdoor Alerting System, Sferic Maps, Sferic API, a weather station, and camera.

## RESULTS

The success of the students at MBS proves that integrating real-world measurements into science enhances interest, lesson memorability, and student engagement. Their yearly trips to AMS are always met with admiration from the leaders in meteorology. Protecting everyone on-campus is now fast and easy with their new Outdoor Alerting System.

*“The tools we have from Earth Networks enable us to respond to things that are happening every day. The skills they are developing - to access, analyze, and present data in lots of different ways - is something will help them in almost anything they do after high school.”*

**- Jeff Yuhas,  
Upper School Science Teacher**