UNIVERSITY WEATHER SOLUTIONS

BARON

Critical Weather Intelligence

A PROVEN FORCE IN WEATHER

Baron technology reaches more than 2/3 of the U.S. population, through our work with the U.S. National Weather Service, the AccuWeather Network, television broadcasters and SiriusXM Radio.

Like you, we have a sense for pioneering innovation. We've worked with the University of Alabama-Huntsville to develop the first dual-pol weather radar for broadcast television. U.S. forecasters can see the weather in entirely new ways, thanks to the dual-polarization upgrade we delivered for every NEXRAD radar. And our relationships with institutions like the University of Oklahoma, Mississippi State and more, ensure that the next generation of meteorologists are learning their craft with state-of-the-science tools.

COMPLETE WEATHER SOLUTIONS FOR YOUR NEEDS & BUDGET

At Baron, a passion for meteorology runs in our DNA. Celebrating over 25 years in the industry, we are a company composed chiefly of meteorologists, scientists, radar engineers and weather-minded software developers. As such, we place a focus on precision that's truly unrivaled in private industry.

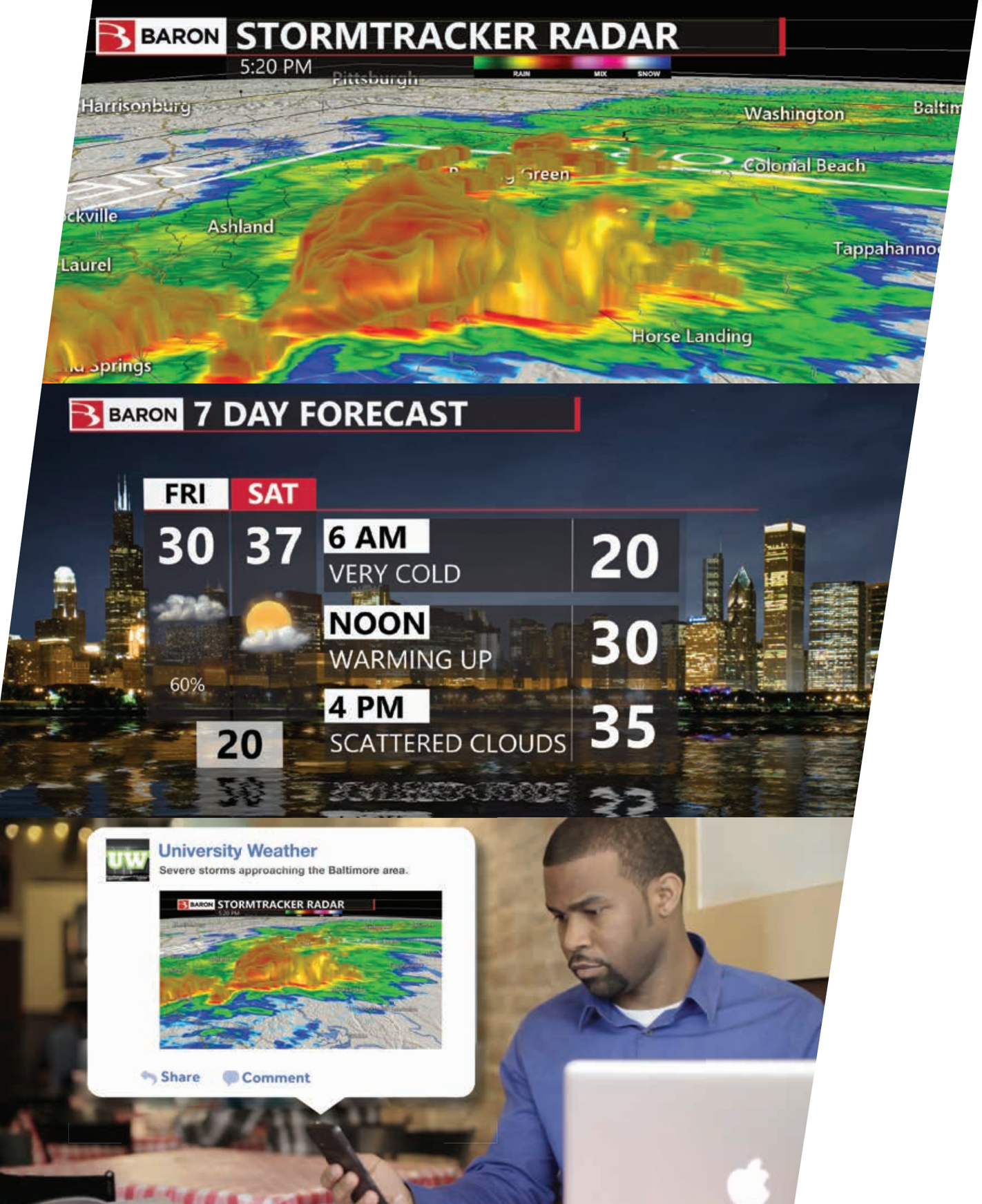
From value-added weather data, dual-pol radar and storm tracking, to immersive weather graphics, web and mobile apps, forecast modeling and more, we provide critical weather intelligence to students and faculty through every means available. We offer a complete solution—at a surprising value.

WEATHER DISPLAY & ANALYSIS

Introducing the Baron Lynx display system. It's your students' connection to a precision array of weather datasets, analysis tools and graphics.

EASY TO LEARN, EASY TO MASTER

Meteorology is challenging enough. No need for software that makes it harder. Lynx was developed with the input of dozens of meteorologists. We kept their considerations in mind, building a system that's powerful, able to reach every platform and screen, while being incredibly easy to use. Moving between analysis and graphics creation is seamless, with easy data product selection and mapping controls that make even complex weather analysis a breeze to perform.



ACCURATE DATA DISPLAY

Data, data everywhere. In addition to hosting a comprehensive suite of NEXRAD and value-added weather data (see pages 6-7 for more), Baron Lynx provides powerful tools for further in-depth weather analysis—even from your own Baron research radar. Don't agree with what you're seeing from a forecast model? Students can make their own custom edits, right in the system, to the model output. From manual and automated storm tracks to a unique 4-panel viewer, showing multiple data products simultaneously, Lynx is a comprehensive tool for nowcasting, forecasting and above all—learning.

A BEAUTIFUL PRESENTATION TOOL

For schools with broadcast meteorology courses, Baron Lynx has a fine pedigree; in addition to its analytical prowess, it was designed to excel as an on-air presentation tool. Vivid, entirely customizable graphics allow students to present an engaging weather story, with 3D terrain and models, plus graphical flourishes that give your students' weathercasts an extra touch of polish. The system is limited only by the powerful imaginations of its users.

WEB & SOCIAL MEDIA OUTREACH

The Baron Lynx weather display makes it fast and easy to share weather content--maps, forecasts, current conditions, graphics and more. Even your own Lynx-generated videos can be exported directly to Twitter and Facebook. Additionally, user-generated photos submitted by users of your custom Baron app give you additional ground-truth verification of events your meteorology department is monitoring.

SUPERIOR DATA FOR EFFECTIVE LEARNING

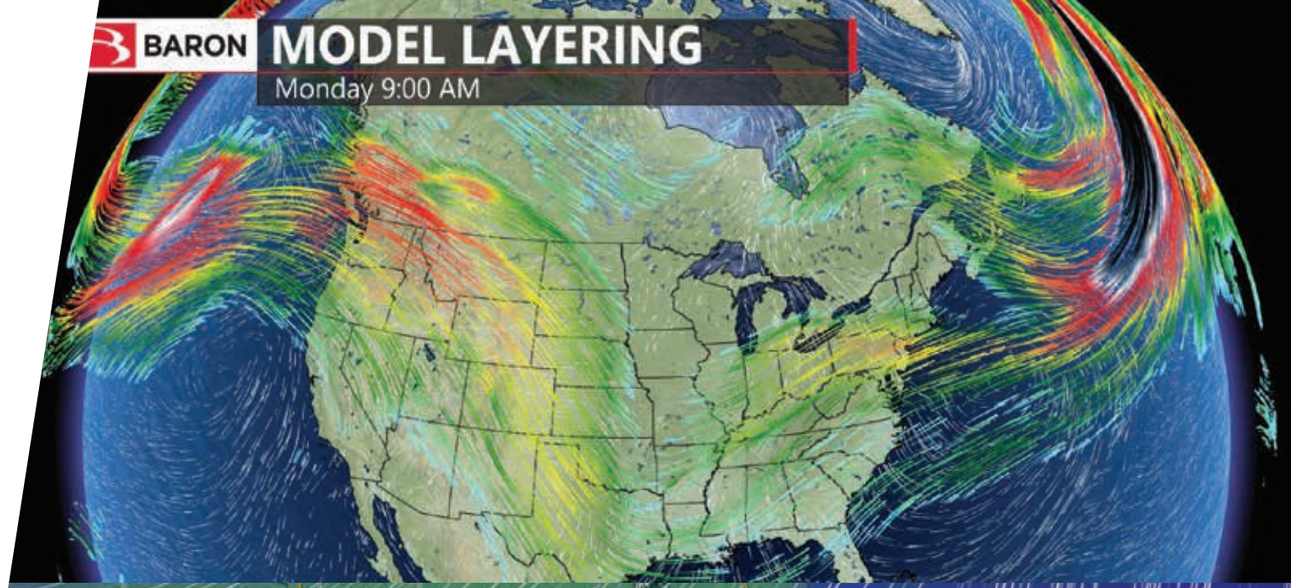
In addition to satellite imagery, forecast models and NEXRAD datasets, Baron provides a suite of value-added data products for in-depth weather analysis. Give students an impactful, way to verify their nowcasts with unsurpassed accuracy—either with the Baron Lynx display, or through your own custom development with the Baron Weather API. And because it features many of the same tools broadcast meteorology students will use professionally, Baron data delivers a fitting head start on a productive career. Here's what students can do.

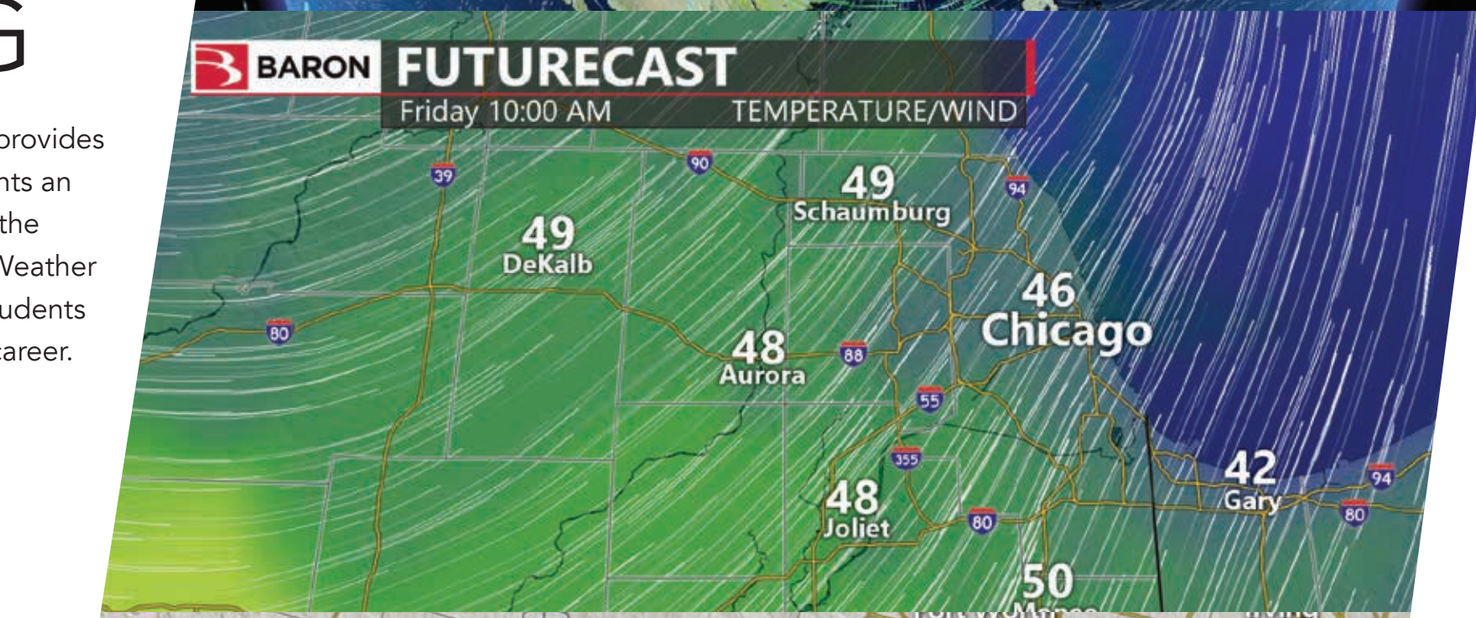
DAILY FORECASTING

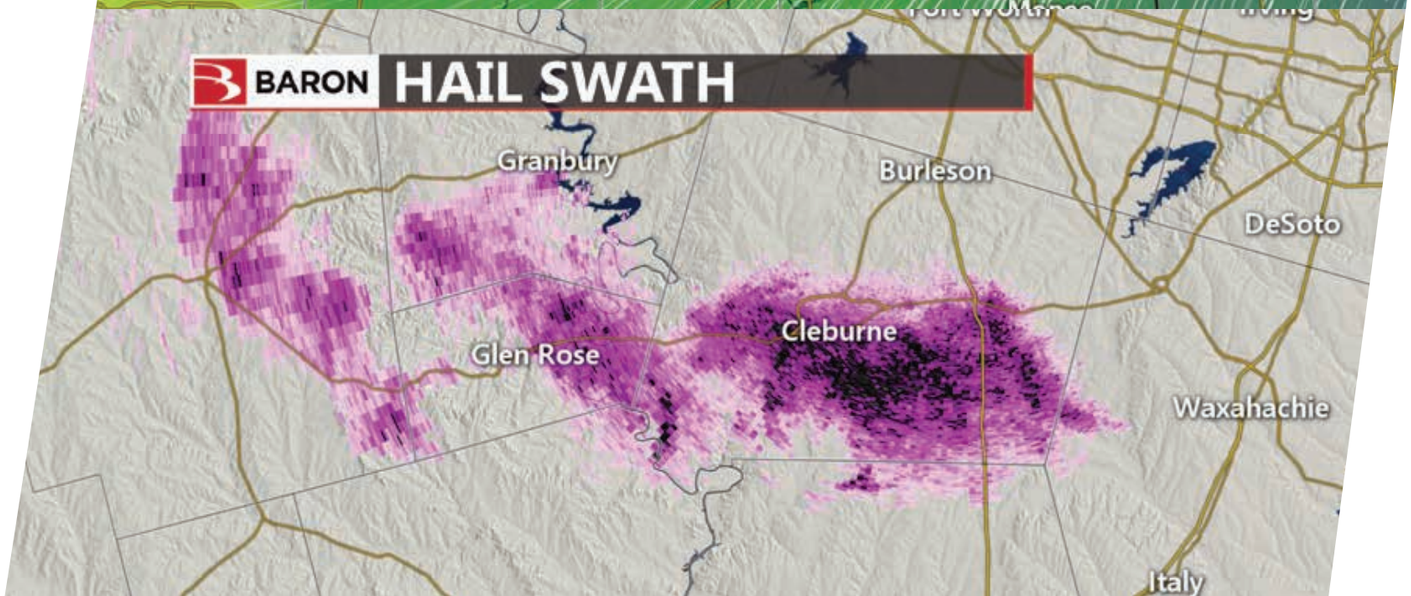
- Forecast using an array of models, including the Baron model, the High-Rapid Refresh Model, GFS, NAM and more for guidance
- Predict visibility and air quality with value-added data for air quality and fog
- Monitor daily temperatures, cloud cover, sea state, winds and more

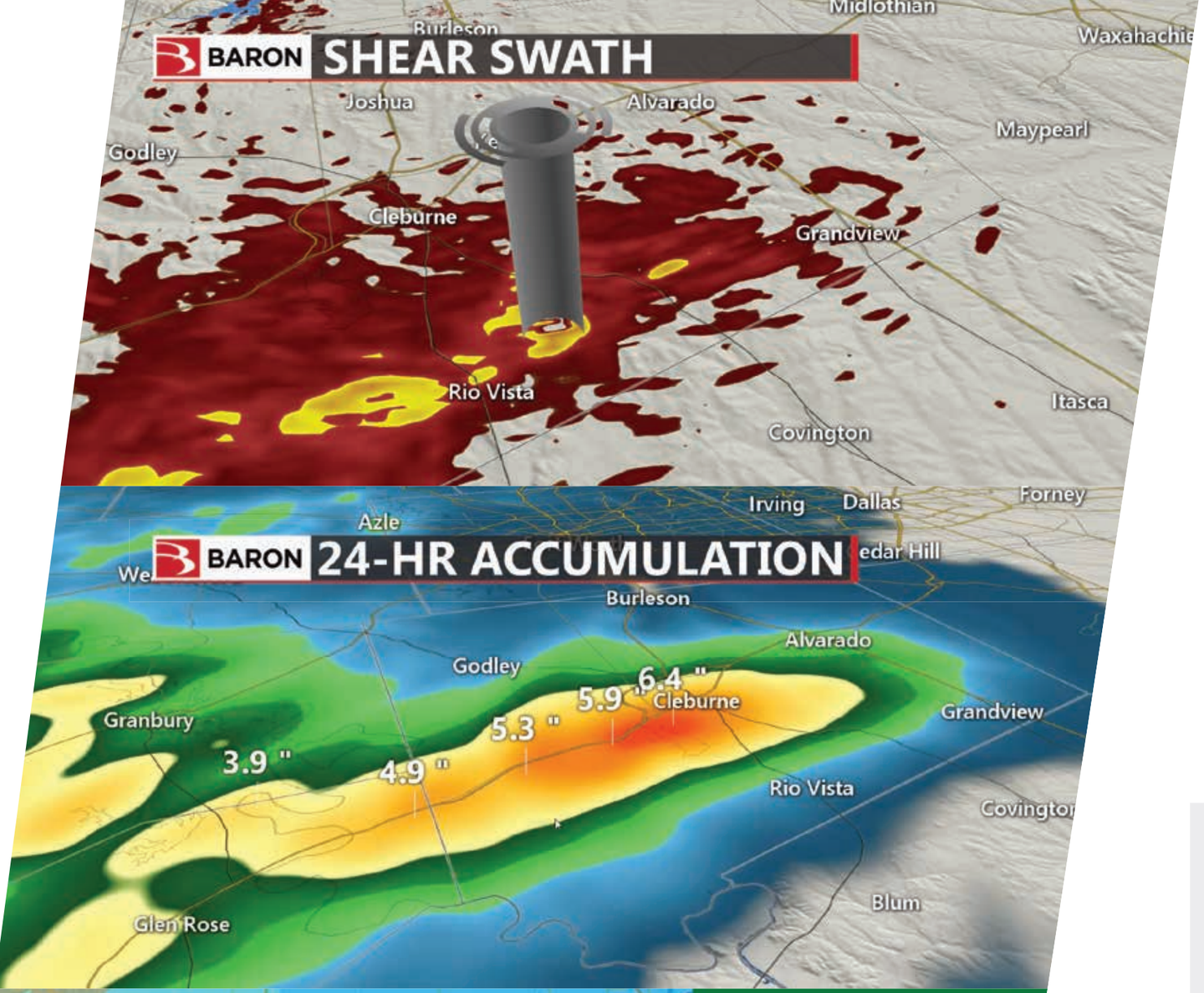
SEVERE WEATHER NOWCASTING

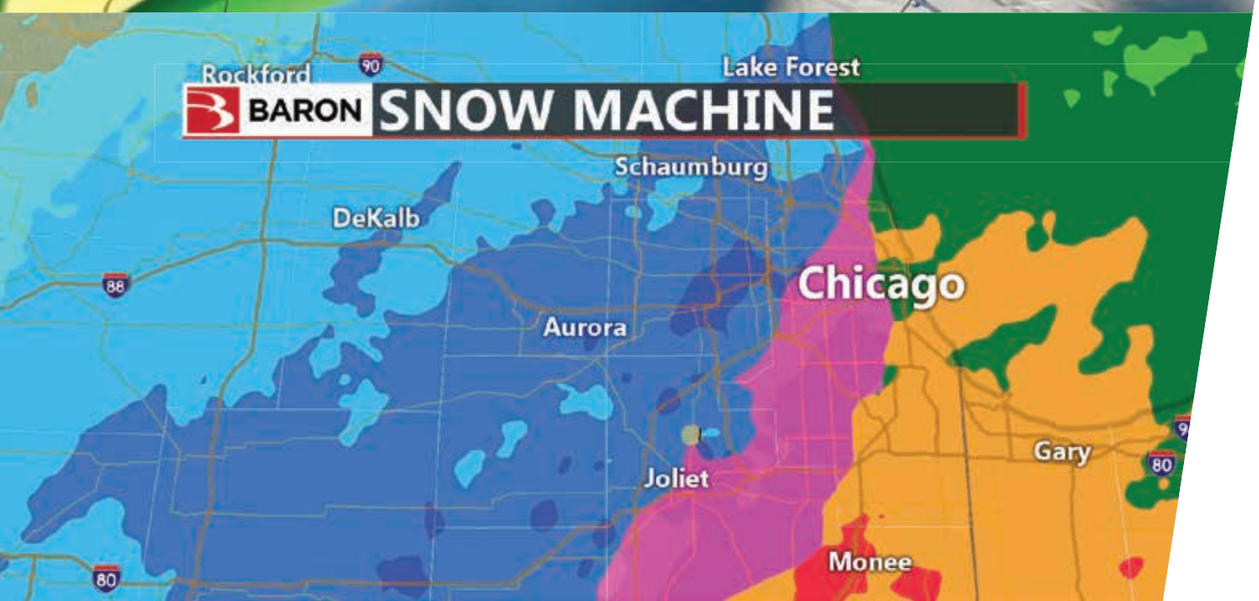
- Identify the presence of hail and track its movement across the region
- Accurately monitor flooding using dual-pol rainfall rate and accumulations
- View a composite image of flooding rains, hail and wind shear, for a comprehensive view of complex storm systems
- Locate and track severe storms with a projection fan and estimated times of arrival











TORNADO IDENTIFICATION

- Automatically pinpoint potential tornadoes with Baron-generated storm tracks, wind shear detection and De-aliased Level II Velocity
- Evaluate the probability of tornadic development within a storm cell, on a scale of 1-10, using the Baron Tornado Index (BTI)
- Identify and track the path of debris lofted by tornado touchdowns
- Track the presence of wind shear regionally and nationally

WINTER WEATHER ANALYSIS & FORECASTING

- Identify precipitation type and amounts with Baron Snow Machine
- Use dual-pol NEXRAD to distinguish snow and ice from rain, greatly enhancing wintertime forecasts
- Anticipate winter outbreaks days in advance with the Baron forecast model

SUPERIOR DATA, SUPERIOR LEARNING

Regardless of application, the data powering Baron systems has advanced the field of meteorology. Whether analyzing tornadoes, flooding, hail cores, convective or winter weather, students receive powerful new tools that reveal the weather's true threats. This brings a powerful verification to their nowcasting and forecasting exercises—powerful, precision data that no other vendor provides.

REACHING STUDENTS & FACULTY ON EVERY PLATFORM

Beyond academics, your meteorology department may have other weather duties in the community. Baron tools help make sharing easier and more streamlined.

MOBILE & TABLET APPS

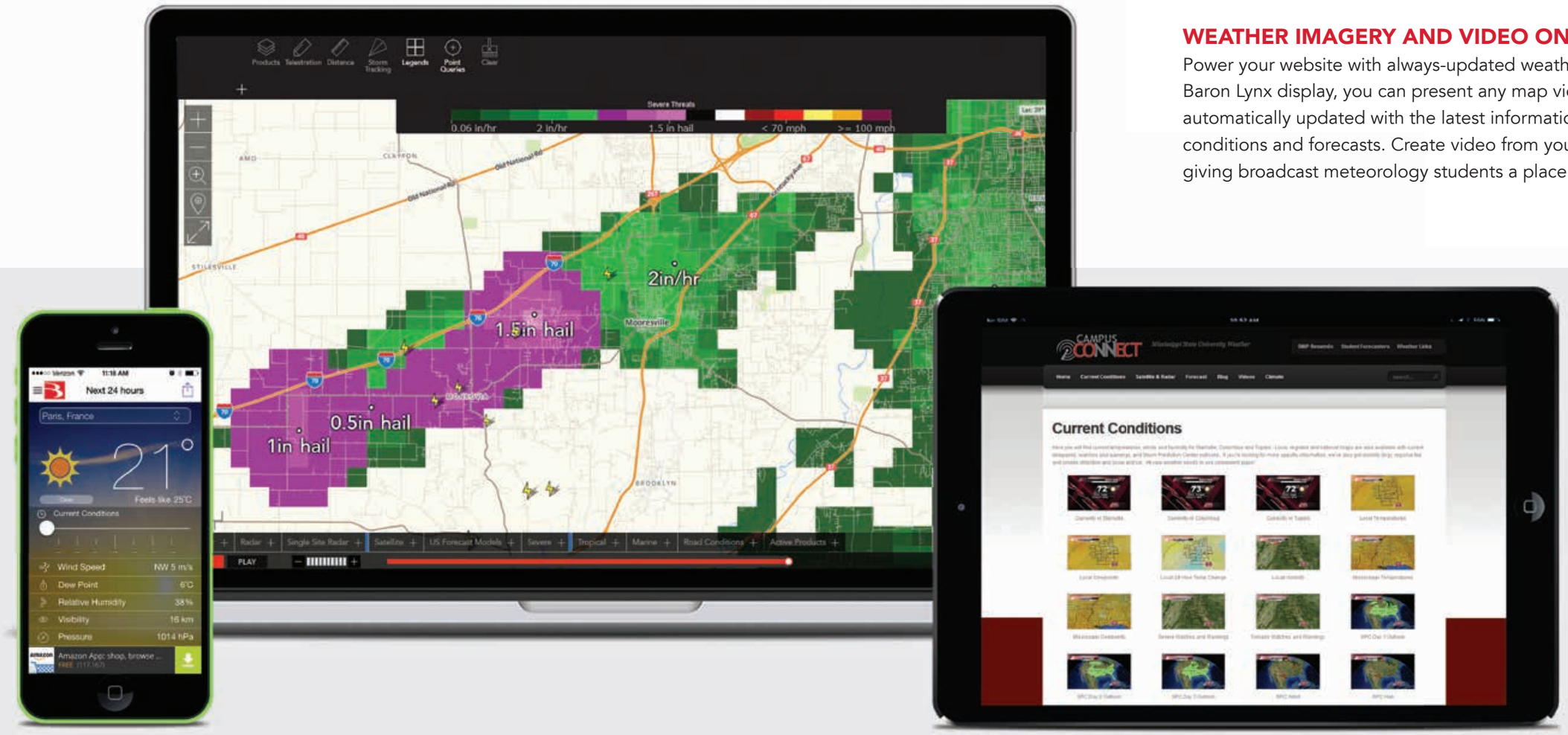
Enhance your school's visibility and weather preparedness efforts. Custom-branded with your logo and identity, Baron weather apps connect with students, faculty and the general public on their iOS and Android devices, keeping them informed any time severe weather approaches. There's a radar map, daily forecasts and current conditions, too. A convenient and secure web portal lets you manually update your custom forecasts at any time. And if you have a Baron radar, you can share its observations with the rest of the community.

WEB WIDGETS

Customized weather widgets populate your website with the latest information, from radar data to current conditions and forecasts. An easy-to-use interactive map lets users pan, zoom, layer data products and more, supplying yet another service from your school and showcasing your commitment to meteorology.

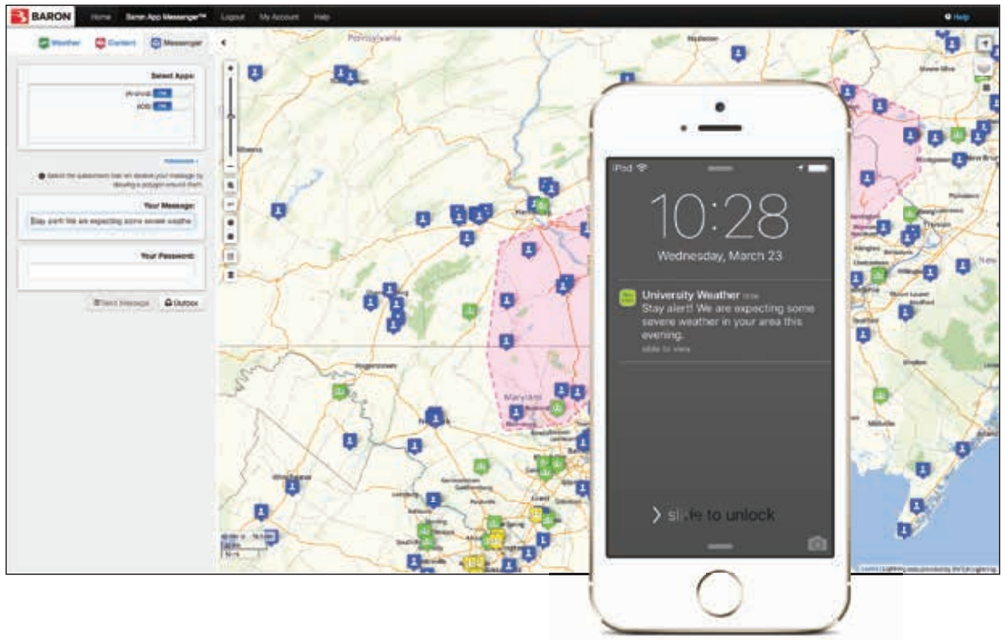
WEATHER IMAGERY AND VIDEO ON YOUR WEBSITE

Power your website with always-updated weather imagery. With the Baron Lynx display, you can present any map views and most data, automatically updated with the latest information, including current conditions and forecasts. Create video from your Lynx system, as well, giving broadcast meteorology students a place to shine.



DIRECT COMMUNICATION DURING EMERGENCIES

For reaching out to students and faculty when it matters most, Baron offers personalized solutions for notifying users of your customized Baron apps.



Custom Push Notifications

When campus security is a concern, users of your app can be alerted of inclement weather, safety concerns, school closings and more. Create and send personalized messages for faculty and students in harm's way, using an easy web portal to select areas to notify.

Automated Weather Alerting

Administration, students and faculty can stay weather-aware and safe with Baron Safety Net alerts. Whether Baron-generated alerts for dangerous and tornadic storms, or National Weather Service-issued weather warnings, alerts are provided via push notifications or text message (no Baron app required). Patented technology ensures that if you aren't affected, you aren't alerted.

DEVELOPMENT TOOLS

For truly custom applications, the Baron Weather API (Applied Programming Interface) allows easy, efficient development using common file formats and extensive documentation. A scalable architecture means data delivery to any of your custom-developed apps, websites and software clients is fast and reliable. Additionally, an easy-to-implement SDK (Software Development Kit) allows you to efficiently add Baron weather data, alerting and maps to any of your existing apps.

ADVANCING RADAR RESEARCH

Equipped with a Baron signal processor and the next generation of clutter suppression, Baron Gen3 radars deliver more accurate weather detection, with better reliability and easier maintenance for reduced operating costs. With dual-polarization as a standard option, there is no meteorological tool more adept at detailed analysis of weather systems.

CUSTOMIZABLE CONFIGURATIONS

Different weather environments and applications demand unique requirements. You can choose between a magnetron (350 kW or 1 MW) or klystron (1 MW) transmitter, in either C-band, X-band or high-frequency S-band configurations. Mobile C-band and X-band designs are also available.

ADVANCED RADAR PROCESSING

An onboard Baron signal processor delivers value-added product creation and automated storm tracking. Full command and control enables on-the-fly RHI and sector scans at the meteorologist's discretion.

SUPERIOR CLUTTER SUPPRESSION

Available exclusively from Baron though a license of technology with the University of Oklahoma, CLEAN-AP™ enables superior ground clutter suppression, in addition to optimally and dynamically adapting the suppression process to the ground clutter environment.

RADIAL-BY-RADIAL ZDR CALIBRATION

New patent-pending technology provides reliable and continuous network-wide calibration during any weather conditions, with less maintenance and on-site expertise required.

OPEN DATA ARCHITECTURE

All Baron Gen3 radars feature an open architecture for easier access to data at various points throughout the processing chain. This allows you to tailor data output extensively to maximize your radar investment.

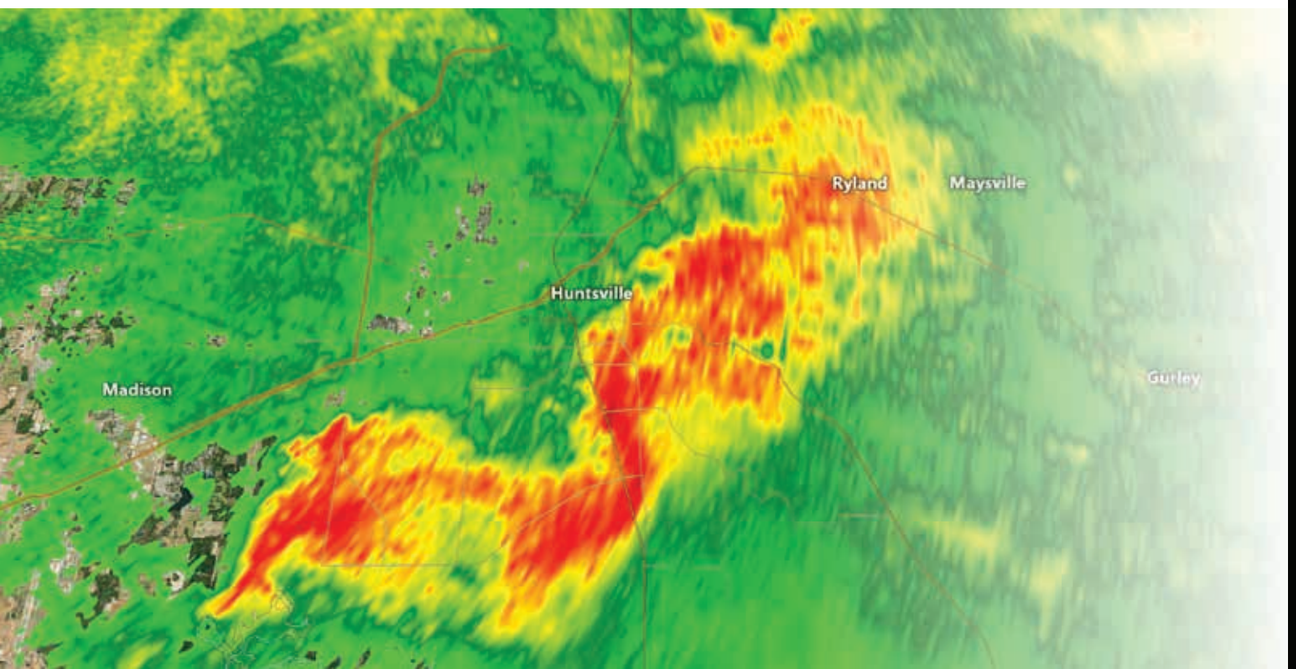
RELIABLE & EASY TO MAINTAIN

Wide-access panels provide easy access to major components, reducing man hours on preventive maintenance and repair. Pedestal motors deliver rugged durability, and can be easily replaced without removing the elevation head.

REMOTE SYSTEM MONITORING & 24/7 SUPPORT

Built-in test equipment provides automatic notification to personnel if potential issues occur. Additionally, meteorologists from the Baron operations center are available to address questions and troubleshooting around the clock.

CLEAN-AP (TM) trademark owned by The Board of Regents of the University of Oklahoma



CONTINUOUS ACCESS TO UNRIVALED SUPPORT

With Baron, you will have reliable, uninterrupted service of quality-assured data. Additionally, a 24/7 Ops Center is available as a dependable source for any questions or assistance.

Our mission is to deliver easy-to-use tools you need to provide students with a comprehensive, effective education, ensuring the next generation of meteorologists is equipped and prepared for whatever challenges the weather brings them. We believe that, by focusing our efforts in this way, the safety of life and property will continue to advance in the future.

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