

Impact of Professional Lightning Detection and WBGT Monitoring Tools

2025 ATHLETIC TRAINER SURVEY

Insights from a national survey of high school athletic trainers on weather safety.

A New Playbook for Weather Safety

Athletic trainers wear a lot of hats—managing injuries, hydration, logistics, and safety—all while watching the sky for heat stress and lightning threats.



Yet until recently, most relied on handheld Kestrel meters, free apps like WeatherBug, and manual “flash-to-bang” math—forcing them to collect data manually, interpret it on the fly, and justify every weather-related stoppage to coaches.

In early 2025, Perry Weather surveyed **100 high school athletic trainers** across the U.S. who switched from legacy weather-monitoring tools to Perry Weather.



The Goal

To understand the operational, safety, and communication impact of professional-grade WBGT and lightning detection.

Our survey shows a decisive shift after switching to Perry Weather

43%

REDUCTION IN TIME SPENT
ON WBGT READINGS.

THAT'S **40 HOURS**
EVERY FOOTBALL SEASON!



Key findings from the survey include:

- **90%** of athletic trainers said Perry Weather's **real-time WBGT and lightning data** is more accurate and trustworthy than their old tools.
- **54%** saved **60-180 minutes per day** on weather monitoring tasks after automating readings.
- 58% drop in weather-related schedule disputes with coaches.
- **87%** reported avoiding 3+ delays each season. Over 60% avoided 5 or more delays.
- **85%** reported **improved communication** with coaches and staff through automated alerts and centralized dashboards.
- **Zero lightning "false clears"** versus an average of two per season with free apps.



The Results are Clear

Perry Weather helps ATs save valuable time, enforce consistent safety protocols, and protect student-athletes without unnecessarily interrupting games or practices.

Athletic trainers and school athletic decision-makers can use these findings to evaluate how an investment in professional weather technology like Perry Weather keeps athletes safer and games on track.

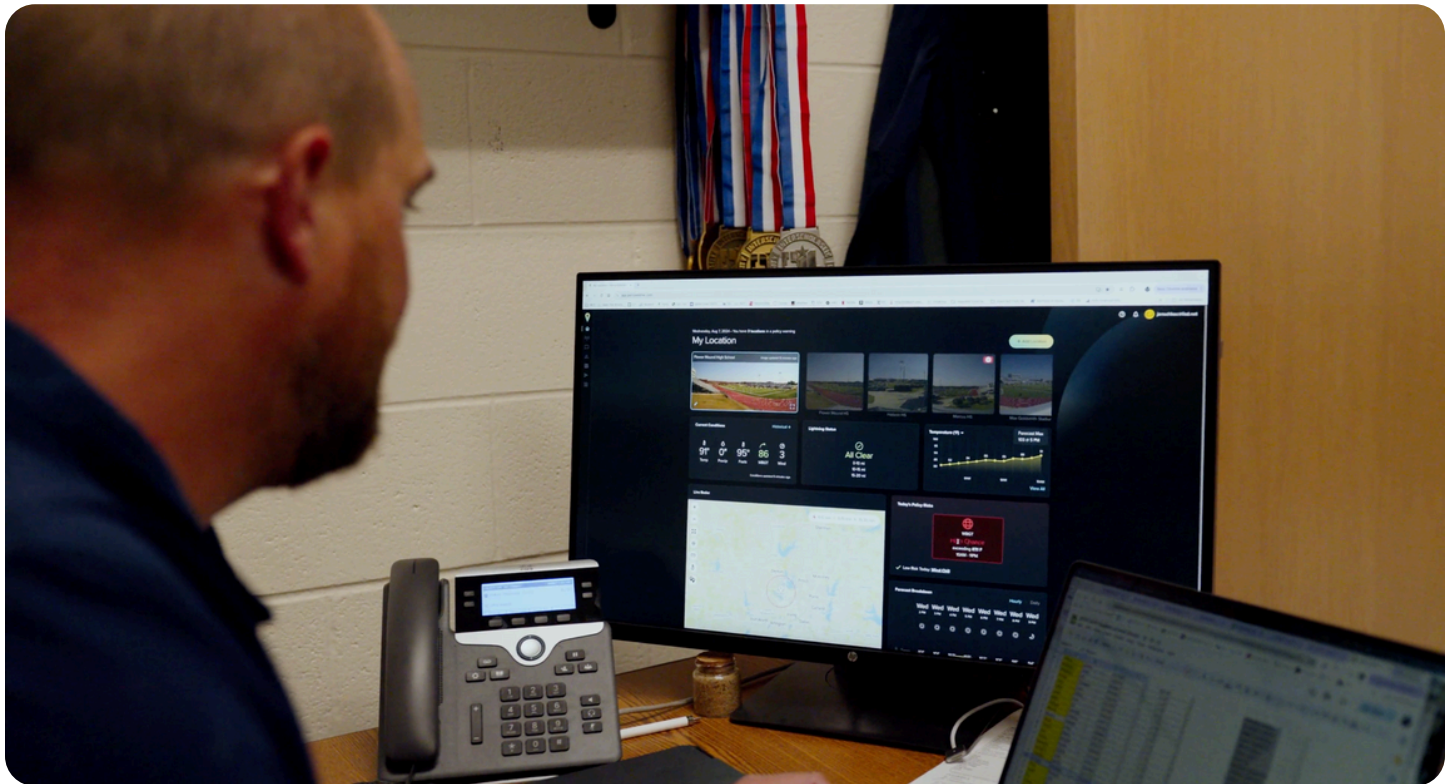
Note: All data and quotes are drawn from customer stories and a 2025 survey of 100 athletic trainers using Perry Weather.

Key Findings

Athletic trainers often act as first responders for weather decisions – from pausing practice in high heat to clearing fields when lightning looms.

This report breaks down key findings from the survey, comparing the real-world experiences of athletic programs using Perry Weather versus their previous tools – especially handheld Kestrel WBGT devices, free weather websites, and free weather apps like WeatherBug.

Weather Safety Is Now Part of the Athletic Trainer's Job



- 100%** of athletic trainers surveyed said weather monitoring is a critical part of their responsibilities.
- Growing enforcement of **state-level heat policies** and more frequent severe weather alerts has expanded the trainer's role beyond injury response.

Consistent Decision-Making Reduces Conflict

29% of athletic trainers reported increased confidence in decisions

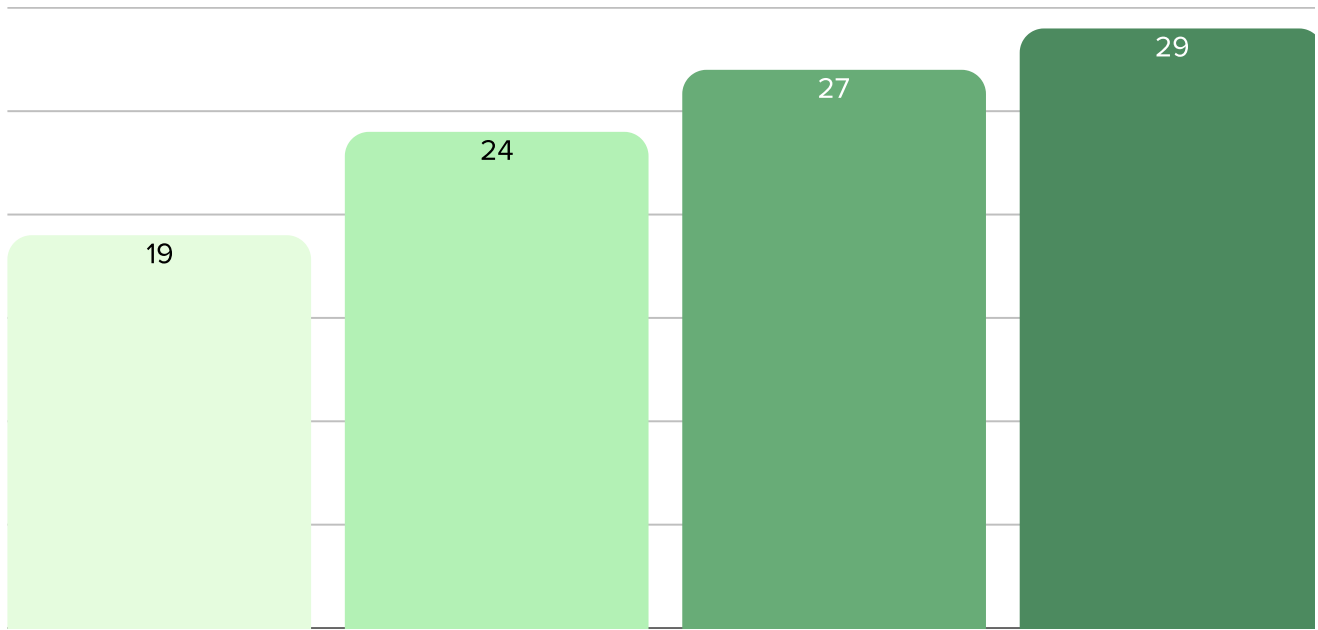


- **27%** reported more consistent actions across all teams and departments
- **24%** less time spent on persuading coaches
- **19%** spent more time with athletes, less time taking measurements

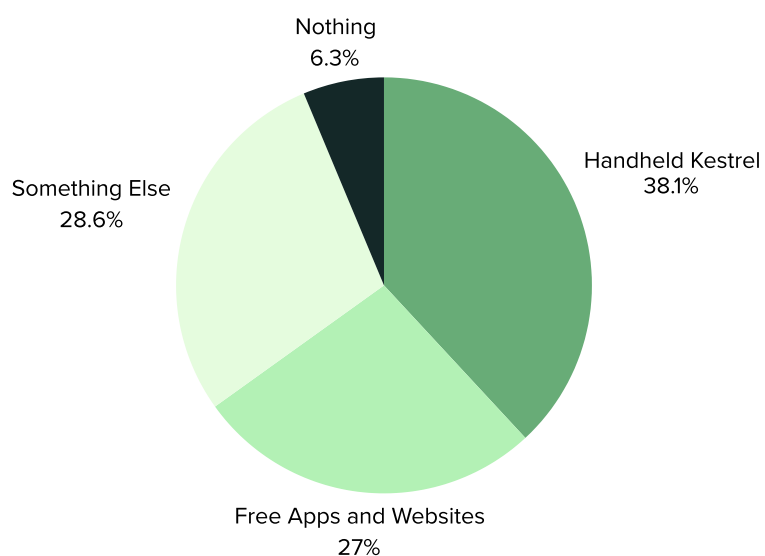
- Athletic trainers also reported a higher level of confidence and lower weather-related disputes with coaches and ADs.
- With Perry Weather:

- All stakeholders follow the **same data and safety policies**
- Policy-based alerts eliminate judgment calls and second-guessing.

- More time with athletes, less time on measurements
- Less time spent persuading coaches when practice adjustments need to be made
- More consistent actions across all teams and departments
- Increased confidence in my decisions on heat-impacted days



Traditional Weather Monitoring Methods Aren't Enough



What Athletic Trainers Used Before Perry Weather

38% of ATs previously relied on handheld Kestrels, **27%** on free apps like WeatherBug, or manual flash-to-bang methods.

These methods often led to:

- Inconsistent decision-making
- Delayed reactions
- Confusion across coaching staff

Perry Weather replaces these with a single, centralized platform that automates readings and alerts.

Automated Monitoring Saves Time and Effort

54%

OF ATHLETIC
TRAINERS **SAVED**
1-3 HOURS WEEKLY
ON WBGT READINGS.



Athletic trainers no longer need to:

- a. Manually stabilize and read devices every 30–60 minutes
- b. Record data by hand or update spreadsheets
 - Time saved is reallocated to **athlete care, rehab, and injury prevention**.

Improved Communication Enhances Safety and Operational Efficiency

Integrated, automated alerts notify **all staff simultaneously**—no more relying on calls, texts, or scattered apps.

- **Zero lightning false clears** reported post-adoption
- Faster, more consistent responses to severe weather
- Reduced risk and downtime across practices and games

Challenges with Traditional Weather Monitoring Tools

In our 2025 survey of 100 athletic trainers, one message stood out loud and clear:



Traditional weather monitoring tools fell short when it mattered most

Before adopting Perry Weather, most athletic trainers relied on a mix of handheld WBGT devices (primarily Kestrel 5400s), free weather apps and websites, and manual note-taking.

These tools often created delays, inconsistencies, and safety blind spots at critical moments.

Handheld Devices (e.g., Kestrel 5400)



PROBLEMS WITH HANDHELD KESTRELS

1. Lengthy Setup and Calibration Times
2. Inaccurate and Inconsistent Readings
3. Manual Data Logging and Record-Keeping
4. Lack of Alerting and Communication Capabilities
5. Inconsistent Enforcement

Lengthy Setup and Calibration Times

- Require 10–20 minutes to stabilize before providing accurate readings.
- Must be held at specific height/angle and constantly repositioned.

Athletic trainers reported wasting valuable time on setup—time that could have been spent on athlete care.



“That’s time I wasn’t taping ankles or helping kids recover”.

— Tim Moscicki, Head Athletic Trainer, Loyola Public School



Inaccurate and Inconsistent Readings

Handheld Kestrels have been found to **consistently overestimate WBGT readings**, with major spikes and swings in the readings. They also require tedious manual operation.

- A [University of Georgia study](#) found:
 - ~**40%** of readings with a popular Kestrel model would have **triggered unnecessary activity restrictions**.
 - These false positives led to canceled or modified practices when conditions were actually safe.

Manual Data Logging and Record-Keeping

Handheld devices lack internal memory or logging capabilities, making them impractical for sustained use.

With handheld WBGT devices, athletic trainers had to:



- Stand outside in the heat to get a reading **every 30–60 minutes**.
 - Wait 10-15 minutes for the device to stabilize while holding it at the correct angle.
 - Manually write down each value.
 - Maintain spreadsheets to comply with safety requirements.
- High Risk of Human Error
 - Forgotten entries or lost records created compliance risks.
 - Made audit preparation and historical review time-consuming and error-prone.

Lack of Alerting and Communication Capabilities

Perhaps the biggest limitation of a handheld is that it’s *only* a measuring tool – it can’t automatically warn others.

- With Kestrels, ATs had to:
 - Interpret the data manually.
 - Alert coaches and staff individually.
 - Enforce weather stoppages with no automated system backing them up.

Inconsistent Enforcement

- Without automated alerts or policy integration, weather decisions varied from person and team to team.
- Delays in communicating risks reduced reaction time, increasing the chance of athletes being exposed to unsafe conditions.

Free Weather Apps and Websites (WeatherBug)



PROBLEMS WITH FREE WEATHER APPS

1. Lack of Site-Specific Accuracy
2. Slow, Unreliable Alerts
3. Inaccurate and Ambiguous Lightning Data
4. Lack of Unified Communication
5. Lack of Policy Compliance
6. Cluttered with Ads

While free weather apps like WeatherBug, websites like Weather Channel, and NOAA are convenient, readily available, and cost nothing, they weren't built for the specific demands of athletic programs and real-time safety decisions on the field:

Lack of Site-Specific Accuracy

- Free apps rely on general weather data from distant city centers or airports, which may differ significantly from conditions at the actual athletic field.
- Localized weather phenomena, especially lightning and heat stress, often go unnoticed or are detected too late.

By contrast, Perry Weather uses on-site weather stations combined with the [National Lightning Detection Network \(NLDN\)](#) to monitor exact conditions at your school campus.

Slow, Unreliable Alerts

- Survey respondents noted that free weather apps typically update on fixed intervals (every 15–30 minutes) or require manual refreshing.
- Athletic trainers in the survey said Perry Weather's alerts reached them "faster and more reliably" than the free apps they used before.

This manual monitoring is not only time-consuming, it's prone to human error and inconsistencies between different teams or schools.



“We used to rely on WeatherBug, but it would sometimes miss lightning that was actually close by.

Since Perry Weather, I haven't been caught off guard once. It alerts our whole staff immediately and we trust it completely.”

– Athletic Trainer, Survey Respondent



Inaccurate and Ambiguous Lightning Data

A common frustration with basic apps is figuring out how close lightning really is.

- Generic apps typically source lightning data from far-off sensors (e.g. an airport or a general network) rather than the exact location, so the strikes shown might not reflect what's happening overhead.

They also provide vague lightning warnings (e.g., "lightning nearby" or "in your area"), forcing trainers to estimate if it's within the danger zone.

Lack of Unified Communication

Free apps don't automatically share information with the rest of your staff.

- Free apps are primarily designed for single-user experiences without built-in capabilities to notify multiple coaches, administrators, or teams simultaneously.



Athletic trainers often lose crucial minutes manually contacting staff, creating fragmented and delayed responses to threats

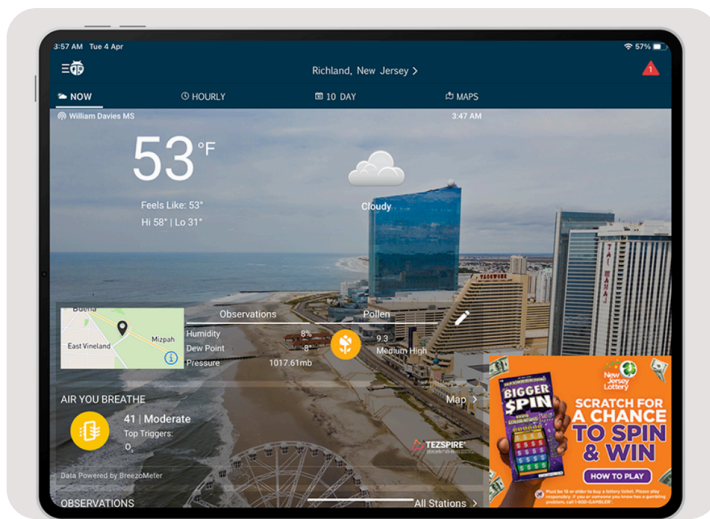
Lack of Policy Compliance

Free apps are not built for organizational safety compliance.

- There is no automation or policy integration – meaning the burden is on coaches or trainers to interpret data and decide when to act.
- They can't incorporate specific school policies (like “clear the field for 30 minutes if lightning is within 10 miles”) and won't automatically notify all coaches or students.

ATs must interpret generic data manually, significantly increasing the risk of human error and inconsistent enforcement of safety standards.

Cluttered with Ads



Consumer weather apps are often ad-supported and cluttered with unrelated info that distract from critical alerts.

Perry Weather's dashboard is focused purely on the data and alerts you need, with no distractions.

The survey found that reliability and precision were the top reasons trainers switched to Perry Weather – and once they did, they gained peace of mind that free tools and handhelds just couldn't provide.



Ultimately, while free weather apps and handheld Kestrels are fine for casual daily use like a backyard barbecue, athletic trainers need a professional solution to protect students.

Ditching Traditional Weather Monitoring for a Smarter Solution

What key benefits did athletic trainers see after switching to Perry Weather?

1. Significant Time Savings

Over 75% of surveyed ATs said Perry Weather helped them “significantly reduce” time spent on weather duties, allowing them to devote more attention to injury prevention, rehab, and on-field coaching support.

75%

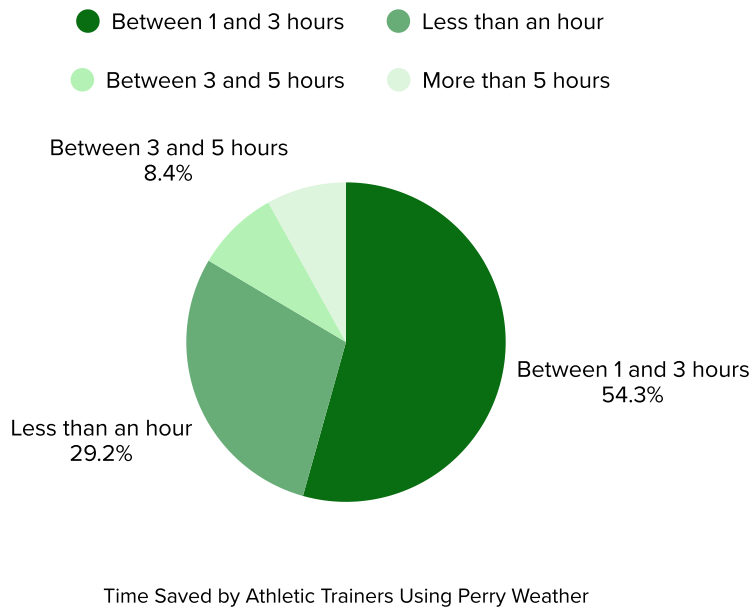
SAID PERRY WEATHER
“SIGNIFICANTLY
REDUCED” TIME SPENT
ON WEATHER DUTIES



Key time-saving improvements included:

43% Reduction in WBGT Monitoring Time

54% of former Kestrel and free app users reported saving **1–3 hours per week** by switching to Perry Weather’s automated WBGT monitoring.



Eliminates Hourly Interruptions:

Under the old system, athletic trainers had to pause every 30 minutes to take WBGT readings.

No Setup and Calibration Delays:

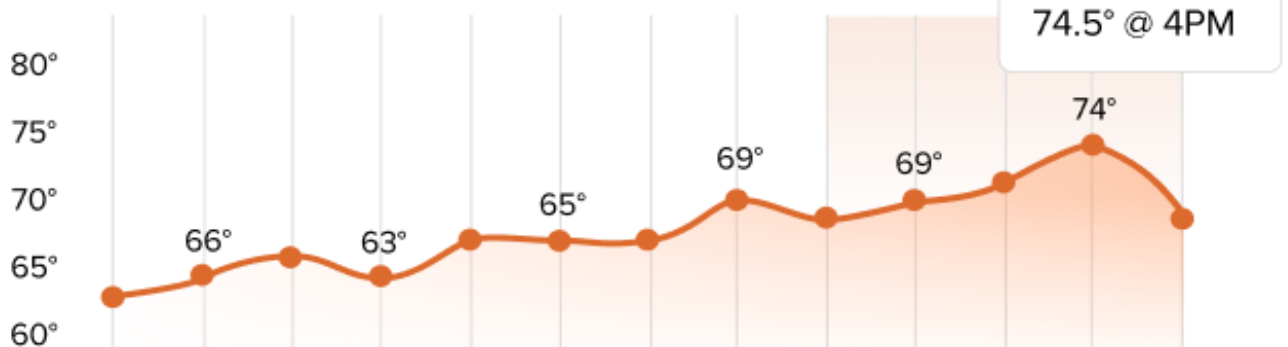
Unlike Kestrels which need 10–20 minutes to stabilize, Perry Weather:

- Needs only a single initial calibration—no warm-up time required
- Provides instant, continuously updated [WBGT readings](#) without delay.

No More Manual Data Logging

- Previously, ATs would spend additional time writing down readings or updating spreadsheets to comply with state requirements.
- **Built-In Automatic Data Log:** With Perry Weather, all WBGT data is **automatically recorded and stored**—no manual entry or spreadsheets required.
- Historical WBGT readings can be easily downloaded, simplifying recordkeeping for audits and reporting.

WBGT ▾



Faster Lightning Alerts

Lightning Policy

- 1 Notify at... **10 mi** ▾
- 2 Send all clear after... **30 min** ▾

Actions

⚡ Lightning detected within 3 miles of your location. Seek shelter inside the nearest building immediately.

- Athletic trainers reported receiving [lightning alerts](#) **several minutes earlier** than with free apps.
- Early warnings help staff clear fields quickly—critical when seconds count.

Fewer Interruptions, More Time for Athletes

- Over **75%** of athletic trainers said Perry Weather significantly reduced time spent on weather tasks—freeing them up to focus on injury prevention, recovery, hydration, and on-field support.
- Athletic trainers no longer need to continuously scan weather apps – they're alerted only when action is needed. The **automated alerts and on-site sensors free up dozens of minutes each day.**

Streamlines Game-Day Prep and Decisions



- Instead of juggling weather duties while managing events, athletic trainers use Perry Weather to get **quick, reliable updates** that free them to focus on hydration, injuries, and coaching support.

“

“I got into athletic training to help kids, not to be a meteorologist. Perry Weather handles the weather monitoring, so I can do my job faster and focus on the athletes.”

— Mike Hopper, Head Athletic Trainer, Bishop Lynch High School

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2. Consistent Action: Everyone on the Same Page Across Teams

Before Perry Weather, athletic programs struggled with inconsistent weather calls—WBGT readings varied by device, and coaches often interpreted guidelines differently.

Perry Weather solves this by centralizing weather data, automating alerts, and aligning all teams under one system. Surveyed athletic trainers reported a significant shift toward unified, policy-driven decision-making with:

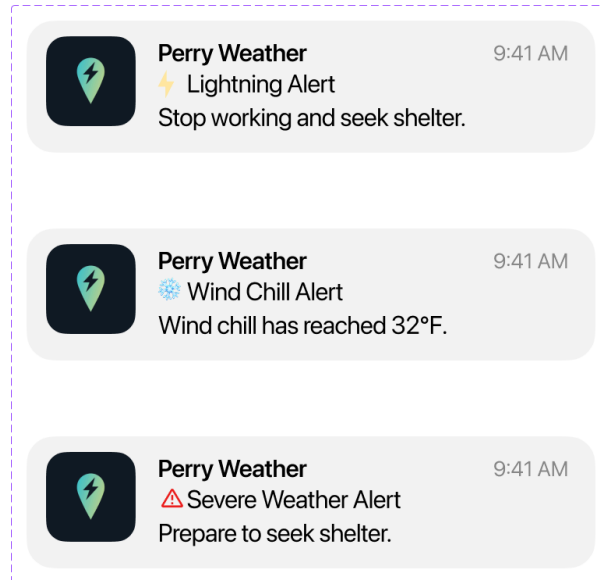
Improved Alignment on Safety Protocols with Custom Policy Settings

The screenshot shows a mobile application interface for editing a weather policy. At the top, it says 'User Groups' and 'Editing Wind Chill Policy'. Below this is a subtitle: 'Update the notification settings you would like to enforce.' The form includes several fields: 'Policy *' with a dropdown menu set to 'Wind Chill'; 'Notify At *' with a numeric input set to '0' and a unit dropdown set to 'F'; 'All Clear *' with a numeric input set to '60' and a unit dropdown set to 'M'; and 'Apply to *' with a dropdown menu set to 'J'. There is a checkbox labeled 'Apply to All Groups' which is currently unchecked. Below these fields is an 'Actions' section with two checkboxes: 'Notify Users' (unchecked) and 'Show on Dashboard' (checked). At the bottom of the form are three buttons: 'Delete' (red), 'Cancel' (grey), and 'Save' (green).

- Perry Weather applies weather policies across all teams and streamlines compliance with safety regulations.
- The system automatically enforces these rules, so every team adheres to the same standards.
- With precise WBGT data, schools can execute heat policies exactly as intended – cancelling or modifying practice when thresholds are truly exceeded, and confidently continuing activities when conditions are within safe limits.

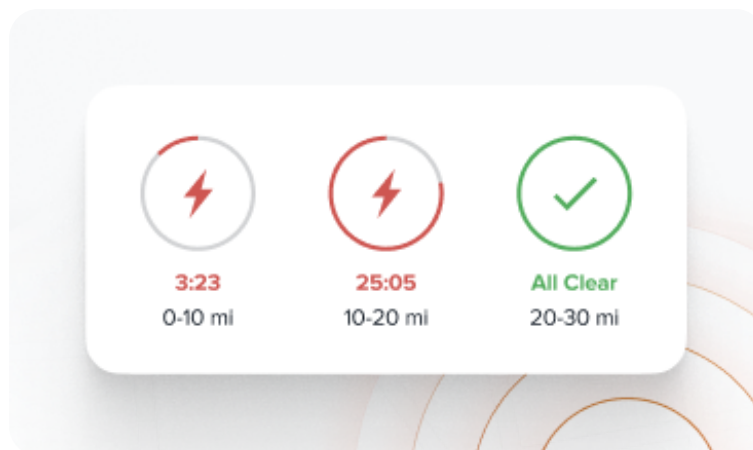
Real-time Policy-Based Automated Alerts

- With automated policy-based alerts sent to everyone who needs to know, the whole athletics department moves in sync.
- Perry Weather sends instant mobile alerts for lightning, high heat, or severe weather based on your pre-set thresholds.



Automatic Lightning Countdown Timers

- When an alert is triggered for lightning detected nearby, Perry Weather not only notifies everyone, it also starts a countdown timer for the all-clear.
- This way, **every coach and trainer knows exactly when it's safe to resume activities.**



District-Wide Alignment

- In multi-school districts or campuses, having a single weather platform means a **fair, coordinated response.**
- With features like multiple location monitoring, a district can now oversee weather for all its campuses centrally.
- Every field and facility receives consistent alerts and follows the same policy logic.

Increased Trust and Credibility

- ATs no longer have to justify weather decisions—alerts and actions are based on policy and real-time data.
- Coaches and spectators see the same information, reducing pushback and confusion during weather delays.

Integrated Alerts and Real-Time Communication

- Once safety thresholds are crossed, Perry Weather:
 - Sends **automated texts and app notifications** to all relevant personnel.
 - Delivers **clear, policy-aligned instructions** to coaches, assistants, and administrators.
- Eliminates the need for athletic trainers to personally deliver warnings or coordinate evacuations.



Watch how a [97-school district](#) in Virginia leveraged Perry Weather to create a single, trusted source for weather safety decisions across all its schools.

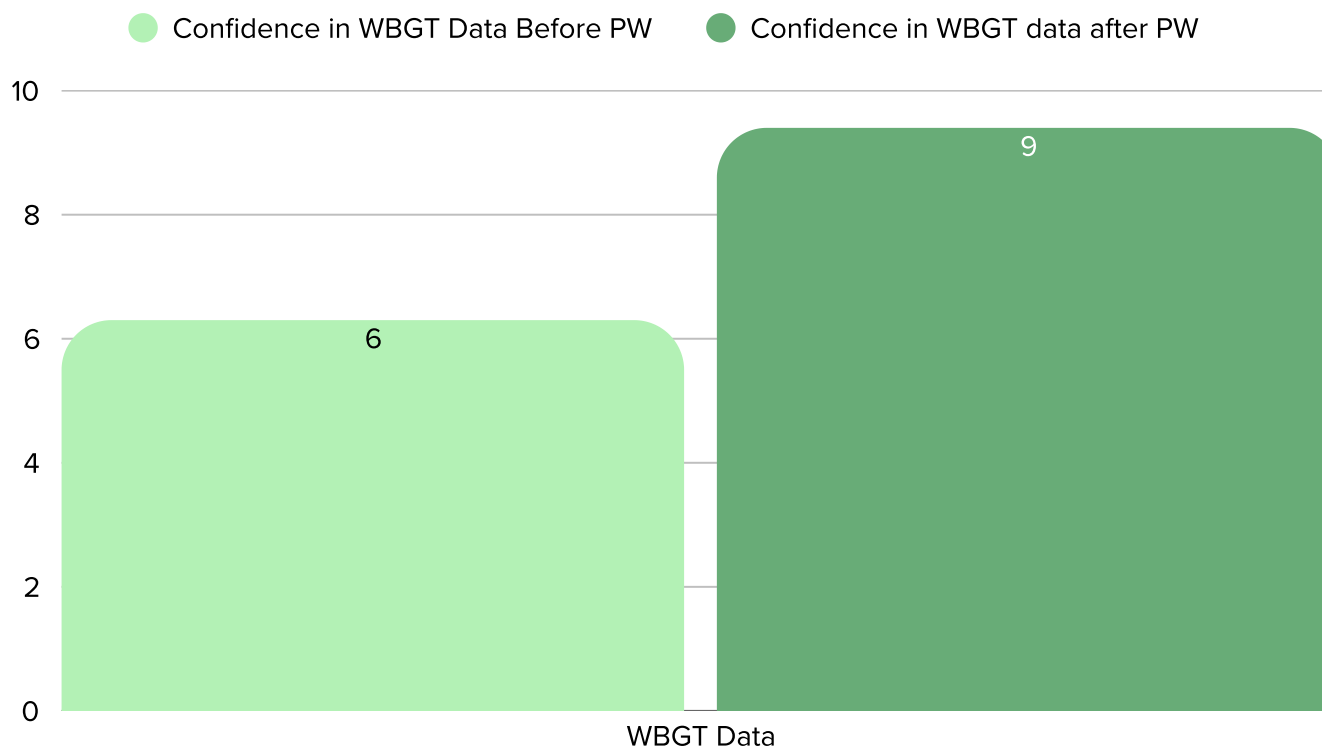
This central oversight was impossible with each school using different apps or tools.

3. Safer Outcomes and Fewer Missed Play Opportunities

Athletic trainers using Perry Weather reported stronger confidence in every weather-related call—translating directly into improved safety and more uninterrupted athletic time.

90% Reported Improved Decision Confidence

- In our national survey, 9 out of 10 athletic trainers said Perry Weather improved the accuracy and confidence of their safety decisions.
- After using Perry Weather, the average confidence score was 9.4 out of 10, reflecting a high degree of certainty in the data used to make critical decisions.
- Athletic trainers credited this to real-time on-site data and automatic alerts aligned with their policies.



Accurate, On-Site Readings—No Guesswork

- Perry Weather uses a **professional-grade 3.5" black globe sensor** installed on-site.
- Measures true WBGT continuously at the exact field location—no reliance on approximations or manual input.
- Delivers precise, real-time data unaffected by improper handling or setup errors.

Fewer False Alarms, Less Disruption

- Handheld devices and free apps often trigger unnecessary delays due to false high WBGT readings or delayed lightning alerts.
- Since switching to Perry Weather, ATs report a sharp drop in false evacuations and schedule disruptions.
- The survey results showed that Perry Weather significantly reduced such variability.

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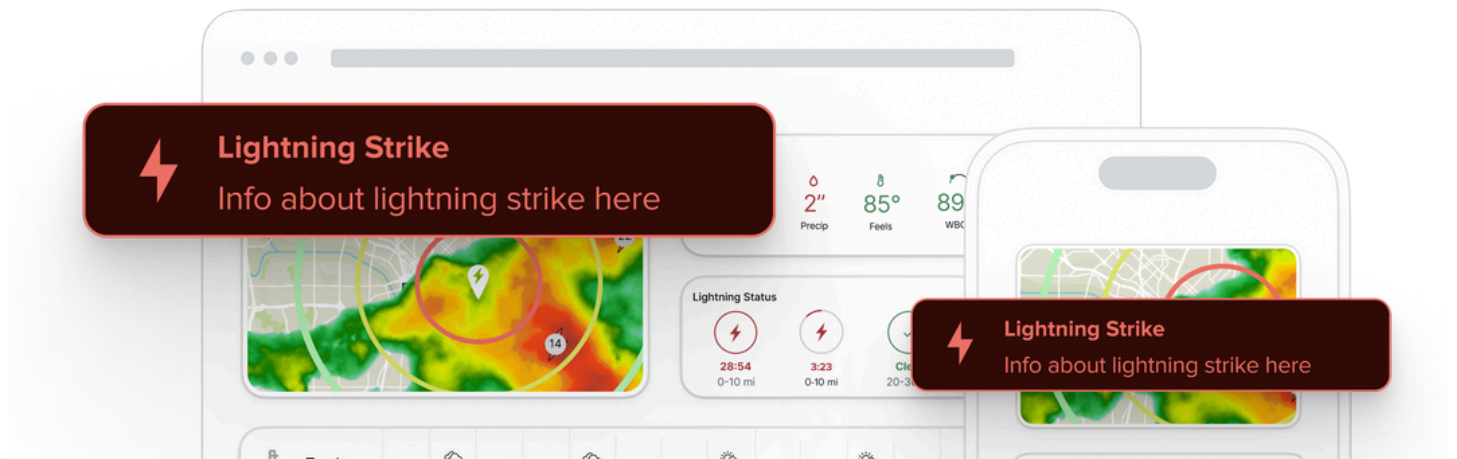
“Switching to Perry Weather was one of the best decisions I’ve made. I feel much safer knowing we have accurate weather readings for our student-athletes.”

— Ryan Livezey, Head Football Coach, Saint Francis High School

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No Missed Warnings

- Free apps and manual methods (like flash-to-bang) often miss lightning strikes or alert too late.
- Perry Weather integrates with the National Lightning Detection Network (NLDN), detecting strikes with 98% accuracy and microsecond timing.
- Automated, instant alerts ensure no weather threat is missed—even when staff are focused on athletes.



More Play Time, Less Waiting

- The lightning all-clear timer automatically resets with each new strike and notifies all staff when it's safe to resume.
- This eliminates unnecessary delays, helping coaches make the most of safe weather windows.

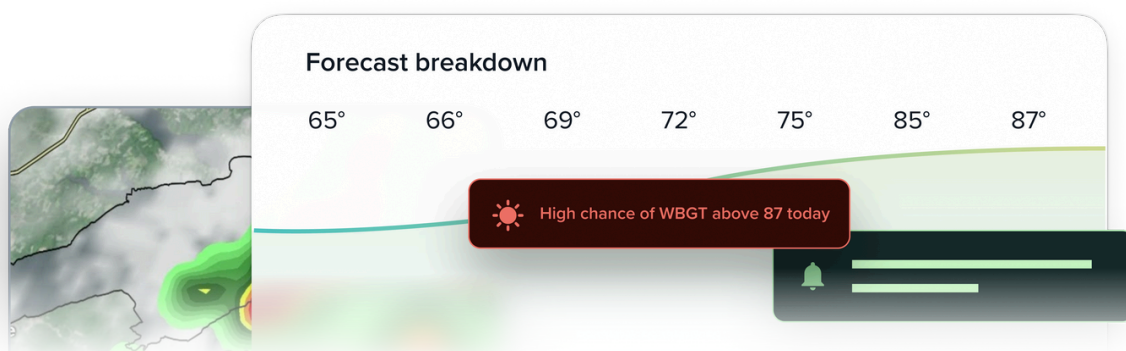
Together, these factors mean **athletes stay safer without sacrificing development or competition time.**

4. Quicker Decision-Making Across Teams and Facilities

Perry Weather gives athletic trainers the tools to make faster, data-driven decisions—eliminating guesswork, delays, and miscommunication across programs.

Data-Driven Decisions, Not Personal Discretion

- Legacy tools left decisions open to interpretation, often causing inconsistency across teams.
- Perry Weather standardizes decision-making with automated alerts tied directly to your policies—no room for guesswork.

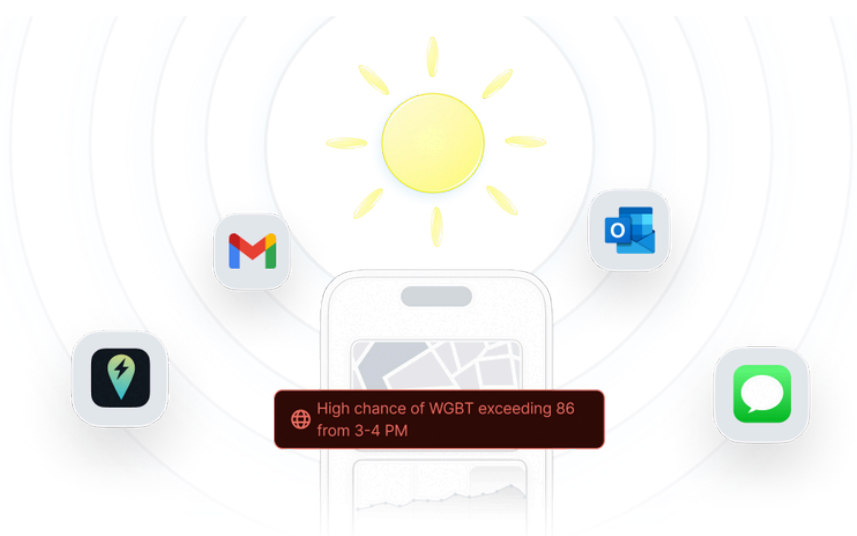


Proactive Planning Replaces Reactive Scrambles

- 100% of surveyed trainers agreed Perry Weather improved planning and decision-making.
- Real-time alerts and forecasts allow schools to adjust practice and game schedules in advance, reducing last-minute disruptions.

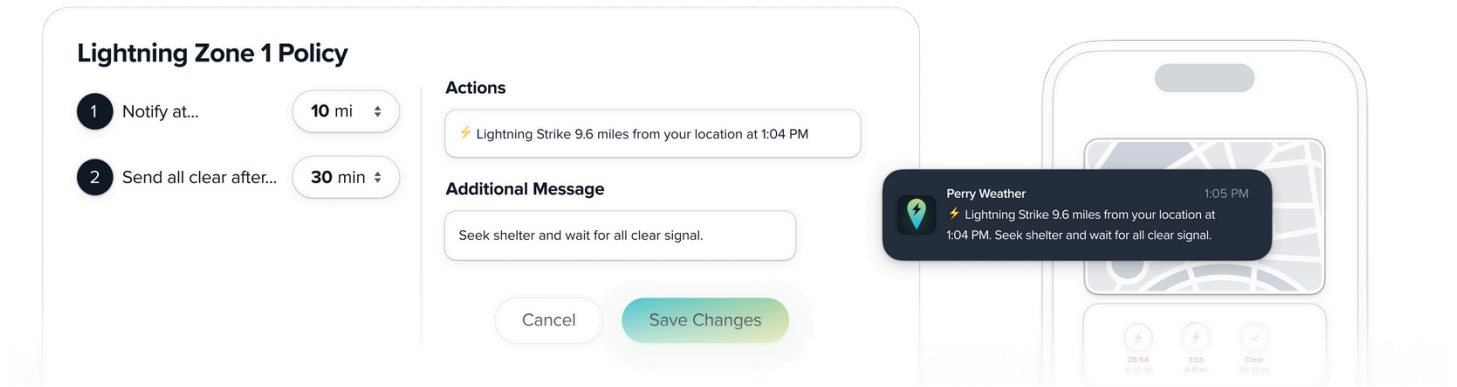
Reliable On-Site Heat Readings

- **Sensor Accuracy:** Perry Weather's station has a [3.5" black globe sensor](#) that is professionally mounted at field level for continuous WBGT readings.
- **Improved Performance:** Perry Weather's larger globe and built-in solar shielding reduce false highs from direct sunlight—common with small handheld devices.
- **Better Policy Execution:** With accurate WBGT readings, schools can follow heat safety protocols with confidence and consistency.



Enhanced Lightning Safety and Storm Management

- **Real-Time Lightning Detection:** Perry Weather utilizes the [National Lightning Detection Network \(NLDN\)](#), the same trusted by NASA and the U.S. military.
- **Instant Alerts:** Perry Weather notifies staff immediately when thresholds are met, unlike free apps that lag 7–60 minutes.
- **Clear, Actionable Instructions:** Alerts come with specific steps based on your policy, ensuring no confusion.
- **All-Clear Countdown Timers:** After each strike, a countdown automatically resets and is visible to all staff, streamlining safe resumption of activities.
- **Full Lifecycle Coverage:** Manages the entire storm response—from first strike to final all-clear—something free tools cannot provide.

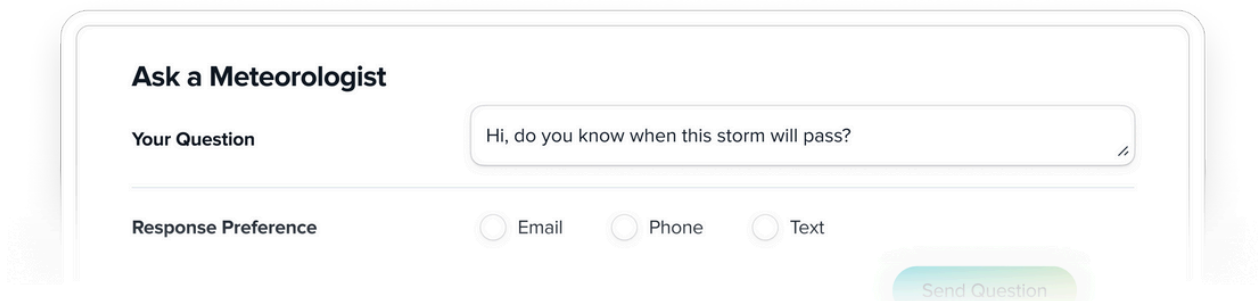


Built-In Air Quality Index (AQI) Monitoring

- **On-Site AQI Sensors:** Provide real-time air quality data so staff can make informed calls on practice during poor air conditions.
- **Additional Layer of Protection:** Especially valuable in regions prone to wildfires or pollution spikes.

On-Demand Meteorologist Support

- **24/7 Expert Access:** Perry Weather customers receive direct access to [professional meteorologists](#) for real-time guidance.
- **Critical for High-Stakes Events:** Experts can confirm forecasts, recommend timing adjustments, or assist with storm tracking.
- **Confidence Booster:** Even when not used frequently, knowing expert support is available gives staff added peace of mind.



Perry Weather enables faster, smarter weather decisions, keeping athletics running safely and smoothly, even when conditions change.



Learn how Perry Weather helped keep [47,000 students safe](#) from severe lightning even when all other methods failed at Round Rock ISD.

5. Seamless Communication and Alerts

Perry Weather eliminates delays, confusion, and inconsistent messaging by providing real-time, automated communication across all teams and staff.

Automated, Real-Time Notifications

- **Instant Alerts:** The moment a safety threshold is triggered, Perry Weather automatically notifies all designated personnel.
- **Multi-Channel Delivery:** Alerts are sent via mobile app, text, or email—whichever method is fastest and most reliable for your team.

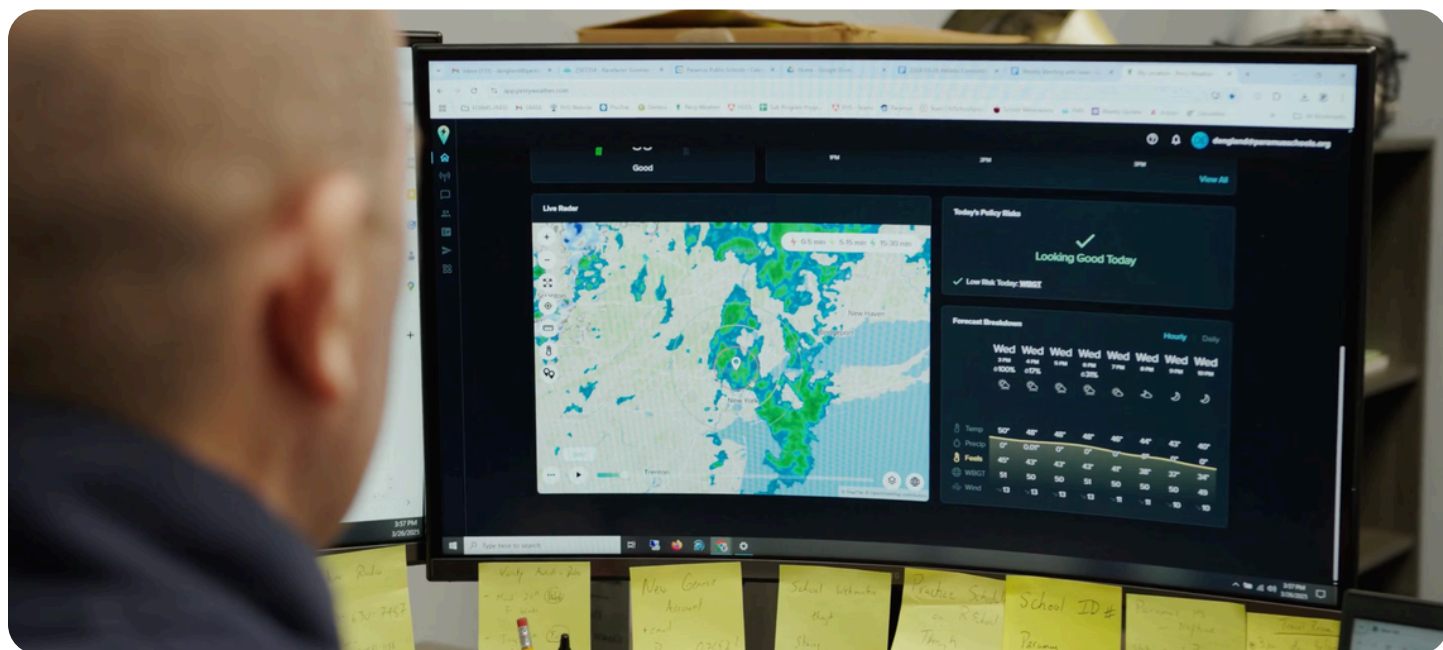
Team-Specific Customization

Perry Weather allows segmentation (by team, facility) so that each group sees the alerts that matter to them.

- **Smart Segmentation:** Alerts can be filtered by team, facility, or role. For example:
 - The football coach doesn't get irrelevant tennis heat alerts.
 - The swim coach isn't pinged about lightning during indoor practices.
- **Role-Based Access:** Only the right people get the right alerts—minimizing noise and maximizing relevance.

One Platform for Everyone

- **Centralized Command:** In multi-team or multi-site districts, Perry Weather enables unified responses across campuses.
- **Consistency Across Roles:** From the head athletic trainer to assistant coaches and bus drivers—everyone follows the same source of truth.



Perry Weather transforms weather communication from a manual, error-prone process into a seamless, automated system that keeps every team aligned and every decision consistent

6. Easier Compliance with State Weather Policies

90%

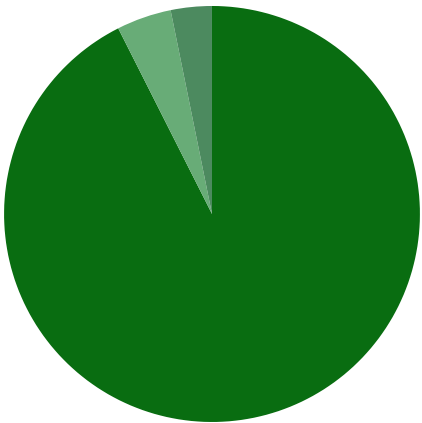
REPORTED MORE
CONFIDENCE IN
MEETING COMPLIANCE
REQUIREMENTS



Real-Time WBGT & Lightning Compliance

● With Perry Weather ● With Handheld Kestrels
● With Free Weather Apps

With Handheld Kestrels
4.3%



With Perry Weather
92.6%

Avoiding Weather Delays

Policy-Driven Messaging: Alerts are tied directly to your safety protocols—no need for trainers to explain or justify actions.

Fewer Disputes: With standardized data and automatic notifications, weather-related calls are easier to enforce and harder to dispute.

Faster Resumptions: Countdown timers and all-clear alerts prevent unnecessary delays once conditions are safe again.

- **On-Site Monitoring:** Perry Weather's station continuously [measures WBGT](#) using professional-grade, meteorologically calibrated sensors.
- **Real-Time Readings:** Data is updated automatically in the app—no delays, no need to wait 10–20 minutes for device stabilization.
- **Consistent Across All Locations:** Whether it's a main campus or a field, all decisions follow the same trigger points.

Perry Weather enforces policy-driven decisions automatically: ensuring consistency, minimizing legal risk, and taking the compliance burden off your plate.

The survey even found that **none of the trainers using Perry Weather wished to return to their previous handheld tools** – not a single one.



The Result?

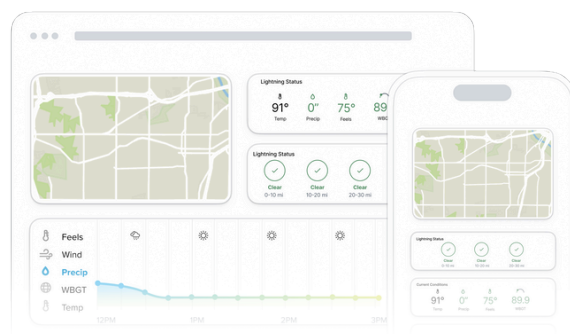
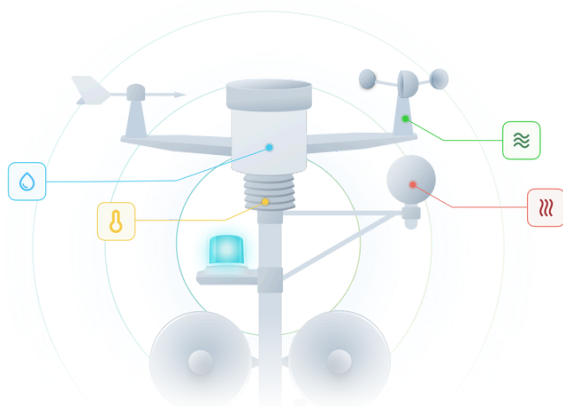
Athletic trainers gain confidence in every safety call, teams avoid unnecessary disruptions, and student-athletes stay safe, focused, and in the game.

Conclusion: A New Standard for Athletic Weather Safety

The experiences of these 100 athletic trainers point to one conclusion: **investing in a dedicated weather monitoring system like Perry Weather pays off for school athletics.**

From the survey data and real-world stories, it's evident that switching to Perry Weather is more than a technology upgrade – it's a holistic improvement in safety operations for athletics.

Perry Weather watches the weather so you don't have to.



By replacing outdated handheld devices and unreliable free weather apps, Perry Weather eliminates uncertainty and delay, empowering trainers with real-time, accurate data and automated alerts tailored to school-specific safety guidelines.

Athletic directors and trainers agree—Perry Weather is the gold standard for athletic weather safety.

As one trainer summarized, "Perry Weather has made my job way easier. There's no guessing anymore. We make decisions based on accurate readings."



Perry Weather replaces outdated, manual tools with a faster, automated system that delivers precision, enhances safety, and saves time.

Ready to learn more?

With Perry Weather in your toolkit, you can focus on what you do best – coaching and caring for athletes – while we handle the forecast.

Visit [Perry Weather online](#) to [get a free trial](#) or [contact us for a demo](#) and see firsthand how these benefits can translate to your school.

Sources

- [WBGT Monitoring in Athletics: Addressing Concerns with Kestrel Devices.](#)
- [Why Organizations Choose Perry Weather Over Free Apps.](#)
- [7 Reasons Why Your Free Lightning Detector App Falls Short.](#)
- [Perry Weather Weather Alert System for High School Athletics.](#)
- [Perry Weather vs. Free Weather Apps: Which is Best for My Organization?](#)
- [How Perry Weather Helps California Athletic Trainers – Case example of Loyola High School \(CA\) adapting to new heat and air quality mandates](#)