

Building a Safer City: How Weatherstem Enhances New Orleans' Weather Resilience

In the wake of Hurricane Ida, the New Orleans Office of Homeland Security and Emergency Preparedness (NOHSEP) launched a critical partnership with Weatherstem to improve real-time weather monitoring and emergency preparedness across the city. This collaboration was rooted in the urgent need to provide protection and data access to all communities, especially those most vulnerable to extreme weather.

Challenges

- **Improve Real-Time Weather Monitoring:** Establish a network of weather stations to provide accurate, localized weather data.
- **Enhance Emergency Response:** Equip NOHSEP with tools for informed decision-making during weather events.
- **Public Accessibility:** Make weather data readily available to all citizens, media outlets, and educational institutions.

Solution

The initial phase installed 20 robust weather stations at critical sites across New Orleans, including fire and police departments, Sewage and Water Board facilities, the Port of New Orleans, recreation centers, and schools. A deliberate focus was placed on high-risk, underserved communities such as the Lower Ninth Ward and Venetian Isles, areas situated beyond levee protection where emergency services are limited. The objective: to provide access to real-time, hyperlocal data, enabling more informed and safer decision-making for all.

Built to withstand winds up to 185 mph, each station features advanced sensors tracking temperature, humidity, wind, and precipitation. Live data and high-res camera feeds are available via the Weatherwise portal for public and official use.

Building on this success, the city expanded its monitoring to include 26 stations with air quality monitoring to help officials respond to hazards like “super fog.”

By pairing equitable deployment with smart weather tech, New Orleans is giving its most vulnerable residents access to critical, life-saving information.

Results

- ✓ **Enhanced Emergency Preparedness** – NOHSEP utilizes the data for real-time situational awareness, enabling timely alerts and efficient resource deployment during emergencies.
- ✓ **Empowered Public Engagement** – Citizens have direct access to localized weather information, fostering community awareness and preparedness.
- ✓ **Educational Opportunities** – Schools and universities leverage the data for educational purposes, integrating real-world weather monitoring into curricula.
- ✓ **Mitigating the Threat of “Super Fog”** – The integration of air quality sensors has been crucial in monitoring and responding to “super fog” events, which are a hazardous combination of smoke and fog that severely reduces visibility and poses significant road dangers.
- ✓ **National Recognition** – The Weather Channel featured the proactive approach, highlighting how officials utilize Weatherstem's data to manage “Super Fog” events effectively.

In Their Words

“The best way to [mitigate hurricane impacts] is to have solid information from platforms, such as Weatherstem, that we can rely on to keep our people safe in our city.”

–Mayor LaToya Cantrell, City of New Orleans

“Not only will [the stations] be used during hurricane season to give our Emergency Operations Center real-time situational awareness, but they will create new educational opportunities for the public.”

–Collin Arnold, NOHSEP Director