

Sound solutions

Case Study



The client:

Cerjan Acoustics

Vaisala solution:

Weather Transmitter
WXT530 Series

Cerjan Acoustics enhances accuracy and reliability for noise monitoring services with Vaisala weather sensors

Cerjan Acoustics, based in Fort Lauderdale, Florida, U.S.A., provides noise monitoring and modeling services, which often require long-term continuous measurements – from days to weeks, months, or even years.

A wide variety of industries, such as renewable energy, transportation and music venues, are required to collect and document acoustic measurements to comply with noise ordinances set by government and other regulating bodies such as the International Organization for Standardization (ISO), Federal Energy Regulatory Commission and American National Standards Institute.

THE CHALLENGE:

Reliable weather measurements for accurate noise monitoring

Cerjan Acoustics' noise monitoring systems require wind and other weather data, as the weather affects noise – and can also create it. Not only does Cerjan Acoustics use the data to calibrate their noise modeling software, the data helps correct background noise levels, model noise propagation, monitor compliance with weather-dependent criteria, and identify noise sources. This integration improves accuracy, impact assessments, and noise management strategies.

The organization struggled to find sensors with the right combination of reliability and accuracy for their noise monitoring projects. Many

"One of the key benefits of using these Vaisala sensors is their precision. We have used equipment from various manufacturers, and have found the performance of the WXT530 sensor to be rock solid. We require having accurate simultaneous meteorological data, such as wind speed and direction, to ensure our measured noise data is in compliance with the applicable regulations. The Vaisala products have certainly allowed us to trust our data and results."

*Jeff Cerjan
Principal Consultant, Cerjan Acoustics*

sensors just didn't perform reliably over the long term. Cerjan Acoustics needed accurate and reliable sensors that not only perform over long periods of time, but could also be deployed in remote locations.

THE APPROACH:

Dependable measurements for the long haul

Cerjan Acoustics chose Vaisala Weather Transmitter WXT530 Series sensors to measure temperature, humidity, rainfall, wind speed and wind direction.

WXT530 sensors are known for providing world-class accuracy and reliability, all in a compact, affordable package. Their rugged design stands up to the weather for low lifetime costs and dependable operation.

Cerjan Acoustics appreciates how the Vaisala sensors mesh well into integrated systems, like solar panels and batteries. It is also important that the sensors have no moving parts, because

moving parts emit noise that can interfere with their noise measurements. The compact size is also a plus when they need to haul the equipment to remote sites.

THE RESULTS:

Highly accurate measurements enhance business

Vaisala's high quality, reliable and user-friendly sensors have provided the right foundation for Cerjan Acoustics' projects. Measurement instrument reliability and life in the field are important – for the weather data and the noise modeling software that uses it.

Reliability and ease of communication are important for Cerjan Acoustics. Precise weather data also enhance their business by helping them to provide highly accurate noise measurements for their clients who need them.

Why Vaisala?

As the global leader in weather and environmental measurements, Vaisala empowers businesses and community leaders to build resilience to climate change and extreme weather events. Our 85+ years of expertise is grounded in science, innovation and our unwavering commitment to constantly evolving.

We boldly demonstrate that a culture of resilience and a connection to nature can create new ways of smarter, resilient living. We are champions for smarter, safer and more sustainable urban communities.

