



# SONOMA COUNTY, CALIFORNIA, USA

CASE STUDY



## Customer profile

Law enforcement agencies in Sonoma County, California

## Applications

- Tait QS 2 simulcast

## Business benefits

- High audio quality
- Reliable communications
- Advanced computer technology greatly reducing servicing
- Fitted with existing equipment and infrastructure
- Simple installation

## Products used

- Five channel TaitNet QS Simulcast system

## THE CUSTOMER

Four hundred staff from three law enforcement agencies in Sonoma County, California are using a TaitNet QS Simulcast system to communicate.

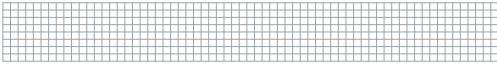
## THE CHALLENGE

When the Russia River basin in Sonoma Country flooded during a storm, local emergency services urgently required additional channel capacity for their radio communications.

Their new Tait QS Simulcast system still had to be commissioned but the first of five channel conversions had just been completed.

The law enforcement agencies were so confident after the build-out of the first Quasi-Sync channel that they encouraged the Sheriff's employees to begin using that channel in emergencies, even before the official acceptance of the system.

The five channel system has now been expanded from seven to eight sites.

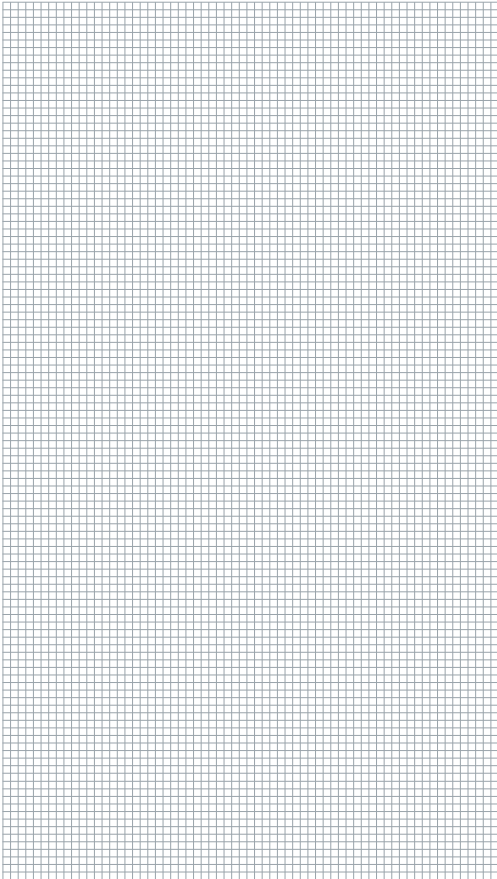


*"The Sheriff Department was very pleased with its performance. In fact we even cross-connected the UHF law enforcement channel with our VHF fire and emergency medical services to better co-ordinate emergency responses. The audio quality is distinctly better than our previous, 12 year old system."*

**Joe Perez**  
Assistant Communications Manager  
Sonoma County



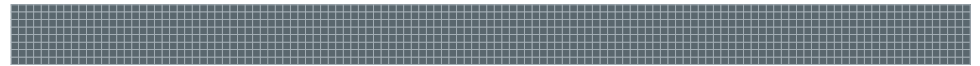
[www.sonoma-county.org](http://www.sonoma-county.org)



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## THE SOLUTION

TaitNet QS's very high simulcast performance significantly reduces maintenance – a key reason for Sonoma County choosing this system. TaitNet QS uses high stability oscillators to maintain a very stable transmitter frequency.

With traditional simulcast systems transmitter frequencies drift over time so regular maintenance is required at each site to avoid distorted audio signals in areas where coverage overlaps.

With TaitNet QS digital signal processing based Line Equalizer Modules - routes audio to each transmitter - analyses the characteristics of a neighboring transmitter and automatically adapts their own signals to match.

The County also chose the system because it was modular, simple to install and because it was able to interface with microwave or radio frequency audio paths or telecommunications lines.

Another feature that appealed to the County was the ability to keep their existing radio infrastructure and fleet radios – significantly reducing the price of the upgrade.

## THE OUTCOME

TaitNet QS System Control equipment, Line Equalizer Modules and Frequency Reference Modules were overlaid on the County's existing radio communications network (base stations and antennae).

Tait has also supplied other QS systems in the USA to Southern Idaho emergency services and the Pittsburgh School Police.

## MORE INFORMATION

For news, product specifications, comprehensive technical information and contact details of your nearest Tait service facility, please visit

[www.taitradio.com](http://www.taitradio.com)

