

# The Source

## Information Radio Newsletter

September 2019 Issue

## Tower Down!

### Norfolk's WJOI Maintains Operations with Quick Switch to New HPR.0990 AM Antenna



**That was close! Dramatic footage of WJOI/WNOR radio tower collapsing into Chesapeake Bay. The station's temporary AM antenna is clearly visible (circled). Watch the video below.**

NORFOLK, VA: The salty ocean breeze that blows past the antenna tower of WJOI Radio in Virginia finally won. Standing valiantly beside the sea since 1973, the corrosion finally compromised, and engineers told the owner that they had no choice but to let it topple into Chesapeake Bay. Demolition happened last Saturday, September 14th. [See the video.](#)

But keeping the 1230 AM WJOI signal on the air at 1/4 power during the next 4 months, while the replacement tower is constructed, could have been a tricky and expensive proposition. Saga Communications' Tom Atkins observes: "It was problematic to find a suitable [alternate] location to operate WJOI-AM from temporarily." But Atkins was able to leverage his association with [Information Station Specialists](#) to obtain the company's first production model of their new [HPR.0990 High Performance AM Antenna](#) so they could continue operations from the same site.

***"...the perfect solution to continue operation..."***

**Tom Atkins, Saga Communications**

Attached to a temporary mast lashed to the station's transmitter shack, the antenna is currently handling the 157 watts of power, allowed by the FCC under a Special Temporary Operating Authority (STA). The newly designed antenna is unique in its ability to handle hundreds of AM watts, while not requiring a tower, an elaborate foundation or climbing-labor to install. The savings to Saga Communications – both in time and equipment costs – was

significant compared to other alternatives they had for maintaining the service.

States Atkins: “The HPR-0990, with its 300-watt power handling capability and its efficient cost, was the perfect solution to continue operation from the existing transmitter location under an FCC STA while the new tower is being constructed.”



**The damaging effect of salt air on metal – as illustrated by a speed limit sign near the WJOI antenna site.**

When WJOI’s new broadcast tower is completed and power is restored to 630 watts, Saga Communications has the option to use the HPR.0990 Antenna again, should it be needed as an auxiliary.

The new HPR.0990 Antenna will allow an AM broadcaster to utilize his main transmitter – at reduced levels – to produce a much larger temporary coverage footprint than would be possible with previously available whip antennas, such as Information Station Specialists’ standard “ANXX” antenna, which is limited to 25 watts.

Yet, for some station owners, the lower capacity antenna solution remains ideal. Example: In Atlanta, WYZE AM 1480 has been dark for several months, having lost access to their licensed tower site. New owner New Ground Broadcasting plans to begin operating soon on a STA with 10 watts using a temporary kit provided by Information Station Specialists that consists of a low power transmitter, the ANXX antenna on a temporary stand and a quick-deploy groundplane. The short-term operation will commence from a building roof, adjacent to the station’s newly acquired transmitter location.

[Email here](#) to request more information about the HPR.0990 Antenna.



## Maine Makes Waves

### Waldo County Emergency Management Agency First in USA to Deploy New Wide-Area "RadioSAFE" (TIS/HAR) Service

BELFAST, ME: It's not the first time a communication innovation has come out of the State of Maine. In 1868, Mainer Joseph Stearns came up with a way to carry on two ends of a conversation simultaneously on the same wire, revolutionizing the telegraph – and later what would become the telephone – industries.

In that spirit, one Maine county, with the assistance of seasoned Amateur Radio Operators, is implementing the nation's first county-wide emergency broadcast system, utilizing universally available AM radio channels. The new wide-area "[RadioSAFE](#)" system will be utilized in emergency / disaster situations in which citizens are cut off from power and communications – something that could easily have happened had Hurricane Dorian steered a slightly different course.

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***"We realized that the last option most people have for getting information is by broadcast radio."***

**Dale Rowley, Waldo County Emergency Management Director**

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It was December 2013 when the County experienced a massive ice storm that crippled the power grid for a full week. EMA Director Dale Rowley recounts, "We established an emergency shelter but could not get the word to residents that the shelter was open! They couldn't watch TV; and their smart phones batteries were dead. We realized that the last option that most people have for getting information is by broadcast radio through their car radio or with small battery-operated receiver. Then we found out about emergency radio advisory stations."



Though a power outage is the number one situation in which they will utilize the service, emergency management officials say it also could be helpful in large-scale evacuations due to forest fires, HAZMAT spill or other hazard that would endanger the public.

The County is erecting signs and will be using all local media to promote the presence of the emergency service. "Then during an emergency, we will send out a WEA (Wireless Emergency Alert) to cell phones directing people to tune to the AM station for more detailed information." adds Rowley.



**Waldo County's Aborn Hill Road antenna site will host the first RadioSAFE System.**

Recognizing that an emergency AM radio system capable of covering their entire county was not an off-the-shelf item, in 2018 Waldo County reached out to [Information Station Specialists](#) to propose the parameters of the new service. That prompted the company to design the [HPR.0990 High Performance Antenna](#), which has the efficiency and power handling capability to cover a radius of more than 20 miles. The antenna is designed so that existing Information Station licensees can upgrade to it, if the physical and spectrum space exists at their locations. Condensed versions of the Radio**SAFE** system are also available that have 6-10-mile and 3-5-mile signal coverage radii. Depending on the version, a waiver and/or a Temporary Authority (STA) may be required from the Federal Communications Commission.

The County then obtained a Subrecipient State Homeland Security Grant to cover the costs. The Radio**SAFE** Wide-Area Emergency Broadcast System was designed as a result of the County's expressed needs and is under construction at this time on a hilltop tower site, centrally located near the town of Knox, Maine. Adjacent Lincoln County in Maine is proceeding with engineering work on a similar system for their jurisdiction.

Amateur radio pros Brit Rothrock (Communications) and Robert Hoey (GIS) within the Waldo County Emergency Management Agency are doing the system planning and will be installing the new service at the County's Aborn Hill tower site. The County's Radio**SAFE** System will operate on AM frequency 530 kHz, a channel designated exclusively for TIS service in the United States. There are no other broadcast stations on 530 kHz in the Nation now, making it an ideal channel for emergency use.

Frequencies for Radio**SAFE** operation are not universally available. Planning a new system – or considering an upgrade to wide-area coverage by an existing Information Station operator – will begin with a frequency search to determine availability.

The new Radio**SAFE** System will be offered in 3 coverage levels:

1. RSF.500.10X - 10-watt enhanced coverage 24/7 plus wide-area coverage on a temporary basis.
2. RSF.10X – 10-watt enhanced coverage 24/7.
3. RSF.10L – localized coverage 24/7.

In subsequent issues of *The Source*, we will keep you in touch with progress, so you can track each stage of the Waldo County station's construction. [Email us](#) for more information on Radio**SAFE** Systems for your community.

# High on Safety

## California Amateur Radio Club: Funding Now Likely for Emergency Radio Station Expansion



Left to right: Bill Tell of Mile High Radio Club; Bruce Barton, Riverside County Director of Emergency Management; Stacie Kelly, Emergency Services Coordinator - District 3.

IDYLLWILD, CA: Good things can come to those who wait, and that appears to be holding true for Idyllwild, CA's, Mile High Radio Club, which for years has been patiently planning a major expansion of their community's Information Radio System, which broadcasts on AM frequency 1610. Spokesman Bill Tell explains, "Our plan for expanding WNKI578's broadcast coverage has become a top funding priority."

**"Winky" is Information**



"Winky," as it is affectionately dubbed, was first licensed at Idyllwild, California, in the 1980s to advise the public of wildfire, earthquake and storm dangers. Recent events such as the Cranston and Esperanza Fires have underscored the need for increased signal coverage, now possible through (1) [high performance antennas](#), (2) [GPS synchronization](#) and (3) signal strength waivers. The plan is to widen the station's coverage footprint so it can be picked up from Poppet Flats to Pinyon Pines, California, a radius increase from the current 3 miles to nearly 20 miles.

Tell adds, "On this mountain, we have the potential for complete isolation, as we experienced during major road washouts recently, severing our ability to freely commute in and out. With the possibility of wind events or power being turned off during peak fire season, communications have become very critical throughout our region for safety and possible evacuations.

"Station WNKI578 proved its worth during the [Cranston Fire of 2018](#). It never ceased to operate, even when power was shut off to our community for several days. It continued to keep residents updated as requested by unified command."

See a [video playback](#) of Riverside County Emergency Management Director Bruce Barton sharing news with the Idyllwild community about the County's support for a planned Winky coverage-area expansion.

See the below examples of how and why other municipalities use radio technology for emergency management:

- [Isolated Bainbridge Island, WA, and flood-prone Lago Vista, TX, prepare for emergencies.](#)

- Montecito, CA, delivers critical info to evacuating residents over the air and by internet streamed broadcasts.
- Gatlinburg, TN, upgrades warning systems to include radio stations, warning sirens and special signage.

# Florida District to Use Radio at School "Reunification Stations"

## First in Nation to Leverage Radio to Inform Parents about Children in Emergencies

OKALOOSA COUNTY, FL: The hope is that it will never be required; but one school district in Florida is testing the [InfOspot License Free Radio Station](#) for possible use at parent/child "Reunification Stations" – the meeting places where parents and children reconnect after a school emergency.



Via text/call, the District will advise parents of the pick-up location. As they approach it, they will see portable signage set up by the District to direct them to the radio frequency. The repeating broadcast will give important procedural information and what to do and expect, when they get out of their cars.

See the article "[School district's active shooter training focuses on student reunification; training teaches how to reunite parents, students after emergency](#)" by Ezzy Castro, July 18, 2019, at *Orlando.com News*.

Some schools such as Hunter Middle School near Chattanooga, Tennessee, use the system for day-to-day parent information, often with messages recorded by students as part of their media educational experience.

Watch future issues of *The Source* to learn about the development of this technology for school districts.