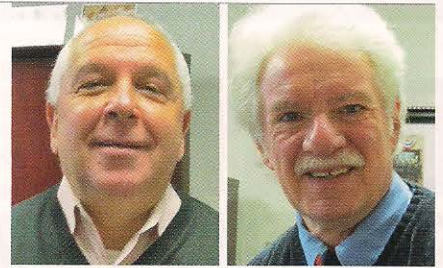


Recommendations for an Emergency Radio System

Radio Comes to the Rescue in North Plainfield



By Michael Giordano, Jr., Mayor
& Rich Phoenix, Borough Clerk,
North Plainfield Borough

In North Plainfield, residents set aside their silenced computers and smart phones, after Hurricane Sandy effectively cut the cord to the worldwide web. Instead, people in the know broke out their old transistor radios, which still worked admirably or got in their cars, and tuned to 1630 AM.

North Plainfield is unusual for a town of its size—we maintain and operate a federally-licensed “Travelers Information Station” (TIS) which is able to function on less current than a couple of incandescent lamps. The AM station 1630 made it possible for us to provide updates of local emergency information at the height of the storm and throughout the power outage.

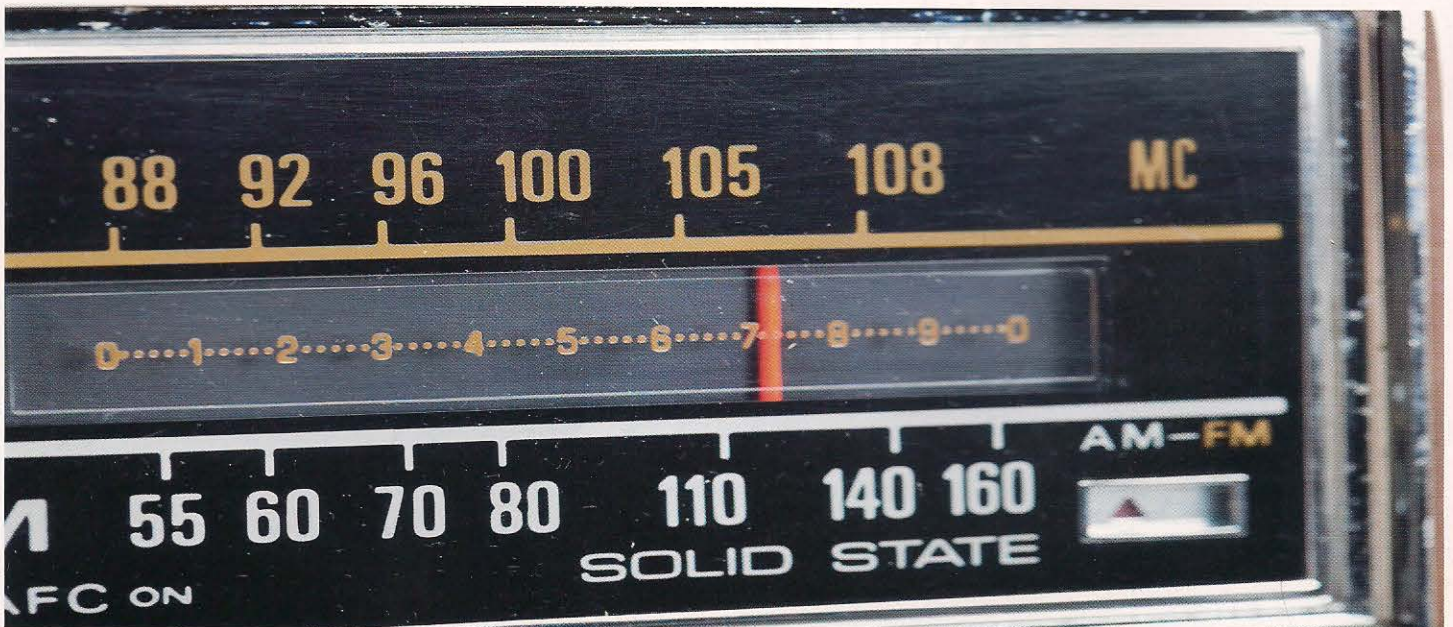
Typically, our emergency station alternated messages between the local and the national weather station in New York City. At the height of Sandy, VHF weather reception from NYC deteriorated very badly. At that juncture, the station’s message queue was adjusted to carry local announcements only. It became a pure “barker” of local information in continuous two-minute parcels of carefully written, direct announcements of where-to-go/where-not-to-go/what was open/emergency phone numbers and the like. We also provided information on shelters and feed-

ing, charging and warming centers in town. On election day, we added the polling locations and district numbers to the message.

The announcements ran on a continuous basis with updates as appropriate. At times, we were updated the message three and four times a day, to reflect changing conditions. The radio station was kept alive day and night via a single Honda generator. Borough personnel from the Department of Public Works and the Fire and Police Departments refueled the generator periodically on a round-robin basis. The changeover to generator power was implemented by the Clerk and Fire Department at the Department of Public Works garage at the height of the storm.

The AM radio transmitter, its memory unit, weather receiver and antenna network are located away from the fray, in a securely wall-mounted aluminum box at the DPW garage. The fire department provided the generator and heavy-duty extension cord so that the generator could be situated in a gated outdoor yard, preventing carbon monoxide infiltration.

Our town clerk, a federally-licensed radiotelephone operator, re-wired the transmitter from commercial to dedicated generator power. Further, he babysat the generator and



transmitter for better than three hours in the (very dark and drafty) garage at the height of Sandy to assure that the broadcast was reliable and stable. He was on hand (alone) with his crank radio and somewhat dodgy personal cell phone that had to be taken outside into the wind and rain to capture an adequate signal.

THE AM STATION 1630
MADE IT POSSIBLE FOR
US TO PROVIDE UPDATES
OF LOCAL EMERGENCY
INFORMATION AT THE
HEIGHT OF THE STORM
AND THROUGHOUT
THE POWER OUTAGE.

As a result of these efforts, the borough's phone system never actually failed. AM 1630 can be programmed via a hard-wired telephone line from anywhere in the world with the proper set of codes. There have been occasions when the Clerk programmed the station via cell from a remote location without a problem. By a bit of good fortune, the garage provides a highly-efficient antenna installation that allows the AM signal to blanket North Plainfield as none other. Better still—the antenna is exceedingly low profile, which minimizes its vulnerability to high winds and icing. Despite Sandy's fierce winds, the antenna was never compromised. (It's the size of a simple ground plane CB antenna without radials.)

The station runs a spartan 10 watts, which is 1/100th the power of WCTC in New Brunswick, 1/5,000th the power of WABC. On a good car radio, you can hear our station clearly into our neighboring towns of Watchung, Scotch Plains, Plainfield and Green Brook. "...."

Sandy has demonstrated the vulnerability of modern wireless communications systems. The internet failed in homes throughout the North Plainfield Borough and in the municipal building. Heroic efforts by the Police Chief included the emergency installation of Verizon WiFi internet connectivity in the municipal building at the height of the event. We are a highly reliable, sophisticated public entity with excellent resources and trained personnel. Residents that could sustain reliable connectivity with "new" media, such as computers, smartphones, even cell phones, were rare. Although the internet and all of the "new" technologies seem to be everyone's darlings, they remain highly vulnerable.

For those who oppose cell towers for aesthetic reasons, Sandy was a practical lesson. Cell services were weakened and failed in many cases when hybrid hard-wired phone connections winked out. "Hybrid" is meant to include any sort of "wired" telephone service reliant on commercial power, such as fibre-optic technology. The phones go out and stay out with the lights. In contrast, there were persistent reports from individuals who had maintained their old copper-wired telephone service and could call out and receive calls.

Television was vulnerable and useless. Those relying on cable and satellite had no reception. All such services require commercial or generator power to operate.

The simple, AM radio proved most effective during this emergency.

Even in the current James Bond Skyfall film, there is a key moment when 007 hauls out a little piece of electronics and addresses his perplexed pursuers with the simple word, "radio" as his helicopter-borne rescuers heave into view! Radio is still basic and affordable, and a TIS station is a valuable part of your town's safety contract with its residents. ▲