Radio archaeology

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City was site of early broadcast station

BY DAVE PISZCZ

BELFAST — Amateur historians and radio buffs have uncovered evidence pointing to the city's important place in the history of telecommunications.

A 400-acre parcel of land, including a site on Congress Street and the original Armory building, was home to two massive Beverage Wave Antenna systems and a Radio Corporation of America (RCA) shortwave relay station, according to Harold Nelson of Newport and Bruce Clark of Belfast.

The pair, in concert with Belfast Historical Society, is looking for artifacts and photographs related to the installation.

In March 1925, the Belfast station received and relayed the first trans-Atlantic broadcast by the British Broadcasting Company (BBC). According to an old recording of the broadcast, the program featured an English dance band playing a number called "Alabamy Bound," amid dense static, from station "5XX, Daventry, the High Power Station of the British Broadcasting Company."

The Belfast station received the program on the Beverage antenna via long wave signal, and rebroadcast it by shortwave to WJZ in New York and WRC in Washington, D.C.

It was the first time American radio listeners had ever heard live music from across the Atlantic. At that point, most radio transmissions consisted of the dots and dashes of Morse code, rather than audio signals, so the broadcast of music was a major event.

"This technology was evolving as fast as computers today," said Nelson.

Coded messages were relayed from Europe or from ocean liners and relayed to telegraph facilities in New York.

The original wireless station was known by the call sign 1XR and was licensed in 1920 to the International Radio Telegraph Company as a ship-to-shore communications device. The entire outfit, including 400 acres of land, was sold to RCA in September 1921, becoming station 1XAO.

Radio experiments began in 1923. A three-story brick building, now part of Belfast Armory, was constructed around 1926, to house the control room and staff quarters.

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The May 5, 1927, edition of the *Journal* reported the new station was "of brick and concrete construction, entirely fireproof and certainly the last word in receiving station design."

The building held 12 long wave receivers and 16 separate radio telegraph channels, and operated with its own power plant and water system.

"To handle the volume of traffic going through the Belfast station alone, including radiograms from Norway, Sweden, Great Britain, Germany, France, Holland, Poland and Italy requires a permanent staff of ten men," the *Journal* noted.

Part of the reason the station required so much land was the need to construct Beverage antennas to capture signals from England and South America.

The technology was named for its inventor, Harold Henry Beverage, born in North Haven in 1893. He graduated from the University of Maine in 1915. He worked first with General Electric in 1916 and a few years later, joined RCA. Beverage designed an antenna system at Otter Cliffs on Mount Desert, which picked up the first word that the Armistice had been signed, ending World War I. He went on to become chief research engineer for RCA and died at the ripe old age of 99, in January 1993.

Nelson and Clark believe there were two Beverage antennas, which consisted of two parallel lines of utility poles carrying a pair of wires, set out in a V-shaped pattern and generally aimed in the direction of the incoming signal.

Nelson believes a 14-mile-long Beverage antenna stretched from Belfast to Monroe, aimed at South America.

Clark speculates a second Beverage line, probably the one that captured the historic trans-Atlantic broadcast of 1926, stretched from Congress Street across Route 52 to Dog Island on Little River. The other end of the antenna ran down the hill toward the city center. Some of the old poles were still standing in the 1940s, Clark said.



On upper Congress St., nearly 80 years ago, these heavy eye-bolts and massive concrete blocks held guy wires securing the tower of Belfast radio station 1XAO, an early experiment in radio telecommunications. DAVE PISZCZ

Few traces remain today. "They looked different from the electric poles and they went in the wrong direction," said Clark.

Old aerial photos have revealed what may have been the path of one of the Beverage systems.

The Nelson-Clark expedition is seeking photos and artifacts such as wires or insulators, once part of the antenna systems.

Long wave technology proved unsuitable for commercial uses, being replaced by shortwave, and, for the Golden Age of Radio, by Amplitude Modulation (AM), and later Frequency Modulation (FM) signals.

The operation was closed down in October 1929 and apparently abandoned until 1941, when the city purchased the land and the building for about $5,000.

Belfast Airport was also being built that year, spurred on by rising concern over the war in Europe. The city deeded the property to the state for the purpose of building an armory on the site.

Belfast's place in the development of wireless technology faded into the mists of history, until the Nelson-Clark expedition this year.

Persons with any information, documentation, photographs, artifacts or knowledge of station 1XAO are encouraged to contact Megan Pinette at Belfast Museum at 338-9229. ■