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Quick, Timely Reads
On the Waterfront

**Crystal Set Creates a Monster:
Radio Nights**

By David Frew

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Editor's note: Following is an "On the Waterfront Classic" by Jefferson Scholar-in-Residence David Frew. It was published originally in January 2021.



*'Who knows what evil lurks
in the hearts and minds of men?
The Shadow knows.'*

I now understand that I was the kind of kid who drives parents crazy. One of the most challenging problems of raising me was bedtime. When my parents had finally reached their breaking point from dealing with a wacko kid who raced around the house creating chaos and decided to create some peace by putting me to bed, I fought as though it was a death sentence. Then one day my father, who was an electronics salesman at Warren Radio, gave me a gift that seemed to solve the problems of bludgeoning me into submission each night. He presented me with a tiny, unsophisticated crystal radio. Plain and without fancy accessories or markings, it was simply a copper coil mounted on a small board with a headphone. But it was a magical device that needed no electrical power. All I had to do was attach two alligator clips and stretch out a 12-inch antenna wire on a suction cup. The instructions suggested that with the clips connected to any metal object and the factory-installed wire and suction cup antenna in place I should be able to bring in as many as a dozen actual radio broadcasts. That little set opened a Pandora's door of opportunities.

Instead of fighting against bedtime, I would happily retreat to the bedroom, hook up the crystal radio and begin a nightly routine of searching for stations. But there were problems. No matter what metal object I hooked up to or where I

stuck the antenna it was difficult to find stations. Unlike the family floor model radio in the living room, which had AM, FM, and Short Wave bands that could bring in hundreds of interesting broadcasts, my crystal set was not good at finding stations. There was no tuner in the traditional sense. Just a pointer that could be pushed along a copper core. If I was lucky enough to find a great station one night, I would have to start from scratch the next evening as I pushed the tuning needle across the copper coil. The headboard of my bed was made of steel, so that was where I attached the alligator clips.



Typical basic crystal set, with one headphone

A friend lived in a large apartment above the Bayview Tavern on the corner of West Fourth and Cascade streets in Erie, Pennsylvania. After I told him about my crystal set, he bought one, and when I visited, I was shocked to learn that his set received way more stations than mine, and that his reception was much better. I soon learned that the secret of his success was the antenna. Instead of clipping his radio to a metal bed headboard as I had, he hooked up to a radiator in his bedroom. To improve reception, he had taken a coin and scratched the paint off of less-than-obvious sections of the radiator where he placed his clips. As it turned out, the radiator in his bedroom was connected via steel piping through the entire building and went down to a boiler in the basement. Also, his bedroom was on the second floor and offered a clear line of sight to Presque Isle Bay. He had extended his antenna with extra wire and tape and squeezed the end out of the top of his bedroom window. After listening to all the stations he was able to get, I knew I had to make some system modifications.

Fortunately, my father had literally filled our basement with extra electronic “stuff” that he had acquired while doing his job. His work area contained an astonishing array of old radios, wire, vacuum tubes, components, switches, soldering equipment, and other parts. It looked like the back room at Radio Shack and there was so much stuff that it did not seem like borrowing a few items would be a problem. My first acquisition from the basement spare parts depot was wire

and black electrical tape. I suspected that if I could attach the alligator clips to my metal bedsprings instead of my headboard, there would be a major improvement and all I had to do was lengthen the wires that led to the clips. Next, I extended the antenna wire and ran it out my bedroom window just like my friend had. With that done, the reception improved but it was still not as amazing as that of my friend. Also, the tuner was totally inadequate. I was painstakingly finding stations by feel each evening but the next time that I used the radio I would have no idea how to return to them. I needed a tuner with a dial like the one on the floor model radio in our family living room.

After another basement workshop raid, I uncovered the guts of a small table-model radio, which had a standard tuner with a dial and numbers. The only thing missing was a power cord. But there were several disconnected bits of wire with switches and plugs and I was able to cobble together a power cord and wall plug. By luck or magic, after I connected the cord to the place where there seemed to be a missing one and plugged the radio into a wall socket, it worked! A few dabs of solder (I had watched my father do it) and some electrical tape and I was in business. My work might not have passed stringent modern electrical codes, but why fret over details in a house equipped with knob and tube wiring?



A floor model radio was the epicenter of my family's evening entertainment

With my new radio and tuner, I could get more stations than before and, more importantly, return to them later if they had been productive. But I was still not getting as many stations as my friend. Obviously, the problem had to be the antenna, or lack thereof. Consulting a faded schematic on the bottom of my "new" radio, I identified two screws marked external antenna. It was a simple matter to

return to the basement electronic scrap pile, find lengths of wire, attach them to the radio antenna port, and then run them with the old alligator clips from the crystal set to the metal bed springs. That improved the reception markedly, but it was still not as good as the standard crystal set that my friend had in his second-floor bedroom. I needed more height.

Back to the basement. This time, I found a large spool of wire. Using a hand drill, I bored a small hole in the wood window trim leading from my bedroom outside, connected the wire to the bed springs and ran it out the window into the backyard. Not far from the back of the house, there was an old flagpole that looked like it had not been used for decades. I continued the wire along the backyard, stripped the end and connected it to a metal screw that I drove into a hole near the base of the flagpole. Back inside, I fired up the radio and found to my disappointment the extra wire and flagpole antenna had not improved the reception by much.

Days later, I was at my friend's house examining his radio when his father asked what we were doing. When I told him about the disappointing results of my attempts to improve my antenna, he asked if I had connected the ground terminal to the antenna system. When I said that I had not he suggested that I look for a third connection at the back of the radio that was marked ground. I rushed home and, just as he had indicated, next to the two antenna connections was a third screw marked with the letter "G." I ran another wire from the back of the radio to the metal bed springs and the difference was dramatic. Suddenly, I was picking up dozens of radio signals, some in languages that I did not understand (they turned out to be French broadcasts from Canada).

You are probably wondering why I did not ask my own father, the electronics guy, for help with this project. I was doing most of the work on the downlow. What parents in their right mind would allow an 11-year-old to attempt basic electrical wiring, soldering, and circuit experimentations, not to mention helping himself to various electrical supplies from the basement workshop? I should emphasize that while I was untrained in the Rick Griffith professional school sense, I was cautious. I always unplugged the radio before doing any wiring, and when I fired it back up, I was careful to watch for flashes of electricity or sheets of flame before using the radio. On the rare occasions that these things happened, I unplugged the radio immediately. I knew my genericity! With the new ground wire attached to the bed springs and an extension wire leading out of the house and to the flagpole antenna the radio dial lit up. There was a station on almost every tuner "notch." Suddenly, the entire broadcasting world opened into a veritable cornucopia of programming. Meanwhile, I became a bedtime-compliant kid, volunteering to retire each evening before the best programs came on. With the single headphone tucked into a pillow I was glued to the bed as I manipulated the tuner tucked between the bed and the wall, carefully scouring the airwaves for programs.

The 1950s were halcyon years for radio drama. Within weeks, I had identified the best stations and favorite shows. My all-time favorites were “The Shadow” and “Inner Sanctum.” But I also loved “The Green Hornet,” all of the detective shows, including “Sam Spade” and “Philip Marlow.” Other favorites included “I was a Communist for the FBI,” “Dragnet,” “Lux Radio Theater,” “The Falcon,” “Perry Mason” and “The Saint.” Long before the advent of WQLN’s monthly schedule that is sent to members, if a kid needed to keep track of favorite programs, station numbers and broadcast times he had to create his own resource book. Using a notebook that had been intended for one of my weighty academic school subjects I devised a sophisticated matrix that contained the names of my favorite shows and associated metrics.

The most disconcerting aspect of my listening was probably the general theme of my preferences: horror shows and crime dramas. I still recall the creaking, opening sounds of “Inner Sanctum.” But the scarier, the better, as far as I was concerned. Taking my school performance into consideration, it was called to my attention that I had devoted a remarkable effort to the radio nights notebook, possibly at the expense of proper attention to such “important matters” as religion or history. But then I was learning so much during the evenings as I traveled to far-off places with favorite characters. How else would I have known that the Shadow was really Lamont Cranston, or that his lady friend was Margo Lane. Or that his time in the Orient had helped him learn the hypnotic art of making himself seem invisible to ordinary people. As he often explained to Margo on one of the railroad trains that they seemed to be perpetually riding, “It was a trick that he had learned in the Orient.”

I now realize that it may have been less than prudent for me to lie awake listening to radio dramas each school night (weekend programming was not as exciting) until 1 or 2 a.m. Somehow my grades began to slip, and teachers reported that I seemed tired and was perpetually nodding off. Could it possibly have been that grade-schoolteachers were boring? But then how could they compete with Boris Karloff or Orson Wells? I fully realized that the world of radio was not exactly real. Actors stood around with microphones reading from scripts while a guy in back was crinkling tin foil to simulate a rainstorm or bashing cups up and down to make it seem like a galloping horse. But I still loved it. To reinforce the reality of the crime dramas my mother belonged to a book club and was always receiving crime novels, starring the very same characters who inhabited the radio.



*This photograph of a production of the Lone Ranger show helps illustrate the actual look of a radio stage. The Lone Ranger was produced in Detroit and, believe it or not, the man in the center wearing a black shirt was the Lone Ranger and the bald man next to him was Erie's Fred McCarthy, playing the role of Tonto.
"Truth, Justice, and the American Way."*

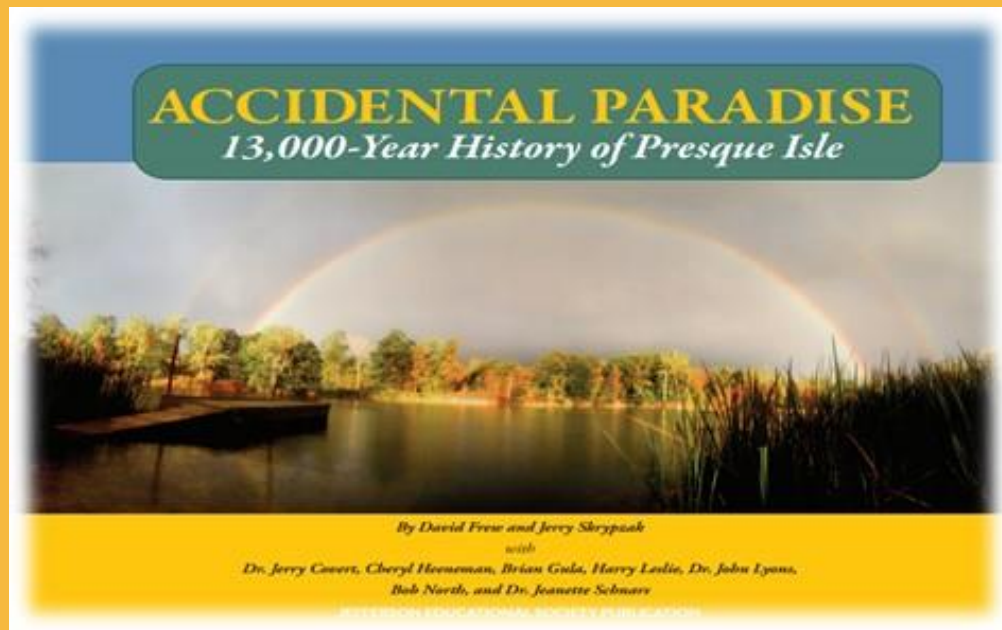
In recent years, I have replaced my Schwinn wanna-be Phantom with a modern car equipped with Sirius XM Radio and one of my favorite features of the modern satellite communication system is the "radio classics" channel. I often tune in during trips to listen to my old favorites but when I do, my wife Mary Ann complains that the programs are too scary. When I mentioned that I used to listen to these programs when I was in grade school, she wanted to know if my parents were nuts. Who would let a little kid listen to the Inner Sanctum?



My all-time favorite show began and ended with a frightening creaking door opening, and then closing. The sound still plays in my mind

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by Dr. David Frew and Jerry Skrypzak



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