

On the Crest of a (Short) Wave: The Rise and Fall of International Radio Broadcasting

A Thesis

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“Canst thou send lightnings, that they may go and say unto thee, Here we are?”  
*Job 38:35*

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## **Abstract**

Since 1927 international broadcasters have spanned oceans and transcended borders through the use of shortwave radio. In the beginning of the 21<sup>st</sup> century, some longtime shortwave stations have sharply cut back their English languages services, particularly to North America and the Pacific region; at least one station has signed off forever.

This paper examines the history of shortwave broadcasting—how it came to be, how it was used and by whom. Through interviews with broadcasters and listeners, it also explores the nature of the shortwave “experience”—especially how shortwave listening is different from listening to other media. Finally, this paper looks at what forces have precipitated such rapid and drastic changes in an 80-year old medium, why some adherents say new technologies are not necessarily suitable substitutes for shortwave, and what the near future holds for international radio broadcasting

Keywords: Shortwave radio, international broadcasting, radio broadcasting, radio propaganda.

## Preface

Anyone who has been called for jury duty likely has had to answer the question, “Can you be impartial and unbiased?” Those who answer truthfully that they cannot are usually dismissed to the jury pool room or sent home. Those who truly believe they are without prejudice along with those who just hope their “better angels” will take the helm are left to hear the case.

The inherent flaw in the notion of true impartiality, in my opinion, is that each of us being the sum (or perhaps the *gestalt*) of our experiences means that we will always perceive things through our own set of filters. We can cognitively adjust these filters to a point, and learn to work around their sway in many situations, but I don’t believe we can ever shed ourselves completely of the influences our life’s experiences have on how we perceive and process things. This makes us frustrating and fun and human.

So, why would I start a treatise on a subject that encompasses technology, history, and politics on such a philosophical note? I guess this is my way of telling the reader that I find it difficult to be fully impartial about the topic.

The truth is, I am much too close to the subject to be completely objective. From childhood I have been immersed in a magical and personal medium called radio; my interest in and passion for radio have profoundly shaped my life. My hobbies and pastimes, my career—even my choice of honeymoon venue—all have had a radio thread. While there would probably be too much of a whiff of the pathological to say that radio has been my best friend, the truth is most of my best *human* friends have been folks with a similar passion.

I didn’t really recognize it at as such when he was alive, but my father had a thing for radio, too. He seemed always to have a radio playing, either his old bakelite Bendix tube-type

bedside set, or one of a couple of Hallicrafters shortwave receivers, including a 1939-vintage beauty called the “Sky Buddy”, a radio that figured prominently in the development of my fascination with the medium.

The Sky Buddy was a crinkly black steel cabinet not a great deal larger than a shoe box, with a simple front panel that was beckoning and mysterious, all-so-technical yet nonetheless friendly. To the left was a silver metal disc about eight inches in diameter with concentric circles that delineated the various bands the unit was capable of receiving and tick marks showing the frequencies; this was the main tuning dial. To the right was a circular black metal mesh grill of the same diameter, bisected by a stylized lowercase “h”; this was the speaker. Between these two in the upper front panel there was a black bakelite square with a semi-circular window through which glowed a warm amber light; this was the fine tuning indicator. Beneath this were two black plastic knobs, the left of which turned the main tuning dial, the right of which caused numbers to turn past in the glowing window as the fine tuning was adjusted. A few smaller knobs to control volume, sensitivity, etc., a couple of slide switches, a headphone jack, and a “Send-Receive” toggle switch completed the front panel.



**Figure 1**  
*Hallicrafters S-19  
“Sky Buddy” receiver*

Photo by Richard Post, used  
by permission.

The latter control revealed the Sky Buddy's heritage as a piece of communications gear. Indeed, my older brother used the radio to receive transmissions from fellow ham operators when he got his license in the late 1950s. Although he was some nine years my senior, we shared a bedroom in which I often awoke to the magical chirps of Morse Code coming from the iconic "h" speaker, the darkness pierced only by the warm glow emanating from the thumbnail-shaped window of the fine tuning dial.

After my brother graduated to a more sophisticated receiver (and later lost interest in ham radio altogether), the Sky Buddy ended up in my father's fishing camp in Bay St. Louis, Mississippi where it, along with a late-1940s vintage 78 rpm phonograph-AM/FM radio combo, comprised the cabin's full range of home entertainment gear.

I spent many weekends and summer weeks at the cabin (some idyllic, some contentious, but that is for another memoir), the soundtrack of which always seemed to include either the old phono-radio or the Sky Buddy. Late Saturday nights we would listen in the darkness to WSM Nashville gently fade in and out: "This portion of the Grand Ol' Opry is brought to you by Martha White flour!" I developed a taste for a form of country music many folks dismiss as "too whiny" and an almost spiritual connection to the radio. Lying in the dark listening to the rolling fade of a distant station is like being out in the ether<sup>1</sup>, like being of and in the universe.

My dad, a retired Army lieutenant colonel, had a maddening habit of prescribing elaborate operating instructions for virtually everything (the refrigerator door in his cabin had red

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<sup>1</sup> For the medium's first several decades, there was a general belief that radio waves propagated through an invisible, inert material dubbed "ether". According to a 1946 U.S. Navy training manual, "It is present EVERYWHERE, even in a vacuum. Like the wind, no one has ever seen the ether, or probably ever will. The ether's reaction to magnetic fields indicates that it is an ELASTIC substance, capable of being pulled or pushed out of shape. But when the force used to produce the distortion is removed, the ether springs back to its normal position." (*Introduction to Radio Equipment* 160).



marker-on-masking-tape enjoinders), and yet I don't recall his ever doing so for the Sky Buddy; I seemed free to explore at will.

And with the magic black radio and another Hallicrafters—a brown leather-cased suitcase of a portable he kept back in the city—I tuned the dials and heard not only regular AM broadcasts, but weird bleeps and bloops and transmissions in languages I did not understand and from places much farther away than just Nashville.

When I was eleven, I had to go into the hospital briefly and my dad gave me a little transistor radio to keep me company. While it only received AM standard broadcast, I tuned it with the same zeal I would the Sky Buddy, at night picking up the clear-channel giants WLS and WBBM Chicago, WJR Detroit, KAAY Little Rock, and the “50,000 red-hot watts” of KMOX St. Louis.

As I mentioned earlier, retrospection has revealed that my father was as much of an acolyte in the “Church of the Ether” as I was. Although he never became a licensed amateur radio operator as my brother (and later I) had, he regaled me with stories about building radio sets as a youth—including the tragic tale of saving up to order an early vacuum tube only to have it arrive broken. He claimed to have been written up in the Tucson newspaper: “Local Youth Receives Cuba on Wireless”, but I have never been able to verify this.

By age fourteen I had earned my first amateur radio license and had adopted my brother's old Hammarlund HQ-150, a hulking 1950s era communications receiver. As I had with the Sky Buddy, I spent hours tuning the bands; I learned that certain frequencies were active at certain times of the day and at certain times of the year. I heard ham operators from Fiji and Australia and I began to recognize the “interval signals” of many of the major shortwave broadcast stations.



**Figure 2**  
*Mid-1950s era Hammarlund HQ-150 communications receiver.*

This was a large receiver, almost 20 inches across. This type of radio would have been used by hams and government and commercial radio operators. It also made a dandy shortwave listening receiver!

Photo by Richard Post, used by permission.

Interval signals are distinctive sounds or tunes repeatedly played by a station five to ten minutes before sign-on to facilitate proper tuning. Radio RSA, the Voice of South Africa, had an acoustic guitar melody punctuated by bird sounds, Radio Australia “Waltzing Matilda”, Swiss Radio International a music box, and the Voice of America a rousing version of “Yankee Doodle”<sup>2</sup>. (Audio files of some interval signals may be heard in the *Appendix*).

As I began listening to the various international broadcasters I quickly realized that their programs were very different from what one would normally hear on the regular AM/FM radio. First, there were almost never any commercials, and second there weren’t many disc-jockey style shows. There *were* music shows, but most programming consisted of news, current events, magazine-style shows, and politics, all imbued with the flavor of the country of origin.

Some programs offered a fascinating window into other cultures, but many were frankly boring to me, being diatribes heavy with ideology and statistics. Remember this was the thick of the Cold War, so many of the Soviet bloc nations aired programs touting the latest five-year plan

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<sup>2</sup> When I first began listening to shortwave, the Voice of America used “Columbia the Gem of the Ocean” as its interval signal, later switching to the much better known “Yankee Doodle.” Interval signals generally reflect the culture of the country of origin. The reader is encouraged to listen to other examples of interval signals at <http://www.intervalsignals.net>.

or recitations of beet production on collective farms. Even so, there was something magic about being able to hear accented English from such exotic locales as Bucharest, Romania, Sofia, Bulgaria or Prague, Czechoslovakia.

Indeed, although I did not hear it myself, I had acquaintances who had heard the drama of 1968's "Prague Spring" unfold live over Radio Prague, complete with plaintive commentary from announcers as Soviet tanks rolled into the city.

I think it worth mentioning that shortwave listeners can be roughly divided into two broad groups. Longtime Radio Canada International host Ian McFarland categorizes them as "program listeners"—those who tune to a station to hear a particular program or programs, and "DXers"<sup>3</sup>—hobbyists who enjoy the technical challenge of ferreting out and logging distant stations (E-mail interview). Like many listeners, I had a foot firmly in each camp; there were stations I tuned to just for the sport of the challenge, but many I tuned to because I enjoyed what I was hearing.

As I grew older I spent less time chasing after exotic stations and more time actually *listening* to certain broadcasters, notably the BBC World Service, Radio Australia, Radio Canada International, Radio Nederland, Swiss Radio International, occasionally the Voice of America, and when possible, Radio New Zealand International. Listening to shortwave became a regular part of my daily routine; I kept a receiver by my bedside and frequently fell asleep listening to the gentle fade-in, fade-out of a distant station, just as I had to the old Sky Buddy in my youth.

Through this process my knowledge of the world grew in breadth and depth; I often learned of significant events days before they were covered (if at all) in the newspaper. I learned

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<sup>3</sup> DX is radio shorthand for "distance". Long before the advent of Instant Messaging or e-mail, Morse code operators truncated their conversations with abbreviations like CUL ("see you later") and GL ("good luck"). DXer has come to mean a radio operator or listener seeking out distant or exotic locales.

to synthesize my understanding of current events by drawing on disparate sources and to craft a worldview that was, well, more *worldly*.

I also honed my technical skills. Along with my ham radio hobby, shortwave listening helped me understand the peculiarities of radio propagation. I learned how to optimize reception and how to push through the challenges inherent to shortwave listening.

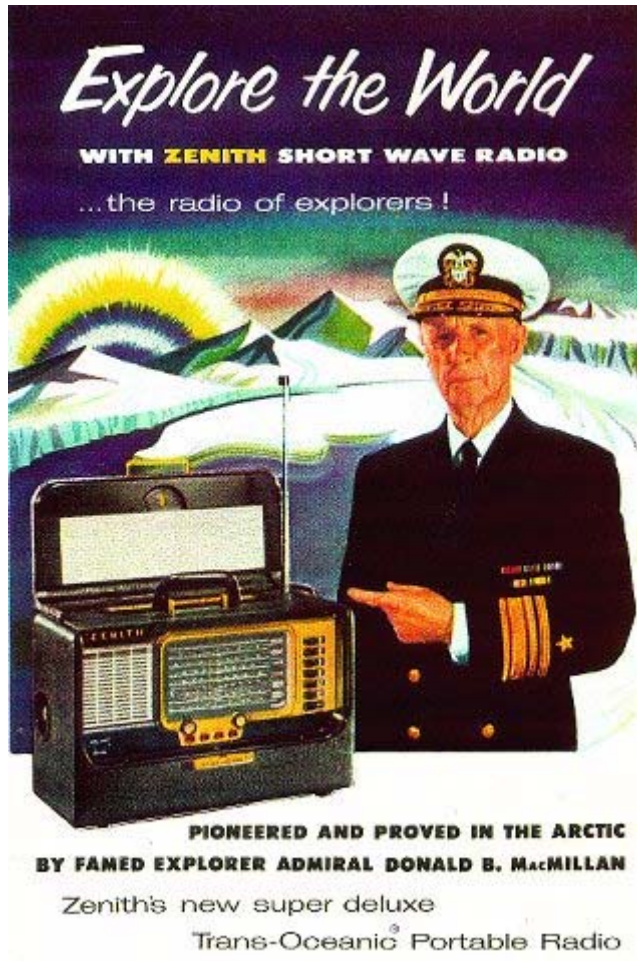
Although radio manufacturers often used to print the names of world capitals on tuning dials, listening to shortwave radio has never been as simple as turning on a receiver and spinning the dial; the listener must contend with atmospheric noise, interference (intentional and otherwise), seasonal changes in reception, stations changing frequencies, sunspots and solar flares that sometimes enhance and sometimes block reception, and the ever-present phenomenon of fading. As Radio Canada's McFarland puts it:

There is a certain challenge to digging out and listening to a program from a station in some far off spot in the world and being able to hear it despite all the fading, interference and just plain bad reception conditions. I've always been extremely impressed at what some listeners say they went through to tune in...(E-mail interview).

For more than 40 years I have persevered through static and interference. It should be evident then that my relationship with radio, particularly shortwave, is much too long-standing and entrenched for me to offer a treatise on the subject that is without a touch of bias.

To compound matters, I, along with other shortwave enthusiasts, have noticed massive changes in shortwave broadcasting over the past several years, changes that seem to threaten the very continuation of the medium. The latter part of this thesis deals with these changes. While I will strive to maintain the academic standards required of such a work, if a sense of this being an elegy for a friend occasionally informs this effort, I make no apologies.

My hope is that this thesis will be readable, enjoyable, and in some ways advance the scholarship and understanding of an important, but somewhat understudied medium.



*Figure 3*

*1955 Zenith magazine ad.*

This advertisement is for the popular Zenith Trans-Oceanic portable shortwave radio.

From the collection of Richard Post who says, "The ads in period National Geographic and Holiday magazines always evoked for me a sense of traveling adventure" (*Zenith Trans-Oceanic T-600 Receiver*).

## Introduction

Imagine you turn on the radio at your bedside or in your car and find that your favorite station isn't there. No signal, no music, no announcers, just silence. You might at first guess that the station was undergoing repair and simply tune to another station.

But, imagine further that your favorite station *never* returns to the air or does so for only half hour a day, and over time your alternate choices likewise disappear one by one, leaving both the AM and FM dials largely empty save a handful of evangelical stations and a few foreign language broadcasters.

Radio is so ubiquitous and mature a medium that such a scenario seems highly unlikely; isn't your favorite station more apt to change formats than simply sign off forever? And yet, a growing number of specialized stations worldwide have turned off their transmitters or sharply curtailed operations, leaving the airwaves in favor of other media and their listeners to adapt or quit listening.

These are international broadcasting stations, most often state-run operations, which aim their programs not at domestic listeners but to those in other countries, stations that, depending upon the nature of the governments they serve, air propaganda or unbiased truth, paeans of nationalism or of neutrality; they represent both beacons of bluster and voices of hope.

For some 80 years international broadcasters have hopped oceans and skipped national borders via shortwave<sup>4</sup> radio, a medium once so commonplace that household consoles and tabletop receivers alike often included shortwave bands. Shortwave allowed expatriates to keep up with home, radio tourists to learn about other cultures, and those in remote areas or in countries with tightly controlled media to get unvarnished news and vital information. Edward

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<sup>4</sup> Throughout this paper I will use the one-word spelling of "shortwave" rather than the two-word or hyphenated forms ("short wave" or "short-wave") except in the main title and when quoting other sources that use these variant spellings. All spellings are common in the literature and I use "shortwave" merely as a personal preference.

R. Murrow described the storm-clouds of war via shortwave (Bernstein 1) and the protesters of the ill-fated “Peking Spring” gathered around portable shortwave sets in Tiananmen Square to soak up news from abroad (Heil 8).

In the first decade of the 21<sup>st</sup> Century international broadcasters—including such giants as the Voice of America and the BBC World Service—have so sharply cut back their shortwave operations that as a lifelong listener I felt compelled to ask: What’s going on with shortwave radio? Why have so many stations reduced or eliminated their shortwave operations?

Just a few years ago, international radio conferences struggled to deal with overcrowding and interference on shortwave bands that are now sparsely occupied (Leinwoll *The Coming Revolution* 1-4). In this thesis I will offer a history of the development of shortwave, examine some of the objectives of international broadcasting, attempt to capture the nature of the shortwave listening experience, explore why shortwave radio seems to be falling out of favor with many longtime international broadcasters, and will try to discover what influences—technological and political—are driving the change. I also will note which member of the community of nations is surprisingly embracing the medium afresh.

While I will rely on sources in the literature—notably James Wood’s History of International Broadcasting, Donald R. Browne’s International Broadcasting: The Limits of the Limitless Medium, and Stanley Leinwoll’s From Spark to Satellite: A History of Radio Communications among others—for a historical perspective and an examination of the propaganda aspects of shortwave broadcasting, I will rely more on direct sources for discussions on the “shortwave experience” and on the rapidly declining use of shortwave.

Very few articles exist on this latter topic (the most salient of which seems to be Anderson’s *Changes at the BBC World Service: Documenting the World Service’s Move From*

*Shortwave to Web Radio in North America, Australia, and New Zealand*), so I will make extensive use of one-on-one interviews and e-mail correspondence with shortwave broadcasters and their listeners.

My methodology will be straightforward reportage flavored occasionally with personal observations.

Finally, it seems pertinent to ask: Is shortwave radio still viable, or are we seeing the death of a medium?



## Chapter 1

### *Voices from the Ether*

Radio did not start as a medium of music and news, dance bands and dramatic productions; early radio wasn't even broadcasting. From its inception, radio was seen as a point-to-point communications method—a telegraph freed from the limits of dry land and untethered from wires. Radio offered unprecedented opportunities for military commanders to track and direct their soldiers and sailors, business leaders to monitor shipments of goods, and above all else, for ships at sea to receive weather bulletins and call for help when needed. Wireless, as historian James Wood points out, “asserted itself as the most important development of the early 20<sup>th</sup> century” (7).

But, the idea of broadcasting—or for that matter even sending voices via radio—was not (to use an anachronistic metaphor) even on the radar. As Wood puts it, “...there seemed little prospect of wireless telephony ever becoming a viable proposition. Apart from a few lone voices, no one in authority had ever talked of a need for telephony broadcasting” (7).

While some visionaries—notably young wireless operator David Sarnoff who reportedly tried (unsuccessfully) to interest his superiors at the American Marconi company in a “radio music box” scheme in a now famous memorandum<sup>5</sup> (Bilby 39)—saw radio’s value beyond strictly utilitarian communications, radio broadcasting as we know it did not occur until decades after Marconi’s first experiments (Lindell 265).

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<sup>5</sup> Although many radio history texts repeat the story of young David Sarnoff valiantly staying at the telegraph key for three days and nights as he relayed information about the sinking of the *Titanic*, some—including biographer Kenneth Bilby—say that accounts of Sarnoff’s early accomplishments were at the very least colored by the man’s prodigious ego and possibly inflated by RCA’s public relations department (Bilby 30-35, Lewis 106-107). The “radio music box” memo is likewise a point of contention for historians because it is unclear whether the document was penned in 1915 as Sarnoff claimed or in 1916 or 1920 as some evidence suggests (White 1). Regardless of the date, the man who would become head of RCA at 38 and indelibly identified with that company, was clearly farsighted in his view of radio: “I have in mind a plan of development which would make radio a ‘household utility’ in the same sense as the piano or phonograph,” he wrote to his Marconi bosses, “The idea is to bring music into the house by wireless.” (quoted in Bilby 39).

Canadian-born inventor Reginald Fessenden is generally credited with the first real radio broadcast—a 1906 Christmas Eve program of phonograph music, a Bible recital, and a short violin performance by the inventor in a broadcast that reportedly shocked and amazed shipboard wireless operators (Raby 127-8). The 100<sup>th</sup> anniversary of the occasion in 2006 has brought fresh historical inquiry into the veracity of the event, but regardless of whether or not he performed the “first broadcast”, Fessenden did theorize the possibility of the wireless transmission of speech and music, and by 1907 the deed had been done, if not by him then by fellow radio pioneer Lee De Forest (O’Neal 1-16).

While World War I no doubt played a role in delaying radio’s evolution from a dots and dashes utility to a household source of news and entertainment, it is worth noting that more than a decade would pass between the earliest transmissions of speech and KDKA’s November, 1920 coverage of the Harding-Cox presidential election, the event usually hailed as the start of broadcasting as we now know it (Lewis 152-153).

KDKA’s groundbreaking transmission ushered the way for other stations. Like the Internet explosion we experienced in the 1990s, radio broadcasting started with a handful of “early adopters”—28 licensees in 1921—and grew geometrically afterwards. Just two years after KDKA’s maiden broadcast, the United States had almost 600 licensed stations and an estimated 400,000 receivers in use to receive them (Pusateri 8).

Such growth was not without problems. Today we’re used to the relatively broad swaths of “radio real estate” in the AM and FM broadcast bands, but in 1922 the stations were mostly clustered around a government assigned wavelength of 360 meters (about 833 kHz). The overlapping of stations meant broadcasters had to work out elaborate schedules amongst

themselves (Rhoades 39); to avoid interference some just took it upon themselves to wander off to other wavelengths (Pusateri 52).

Chaos of the airwaves was nothing new. From the beginning of wireless communications, the radio waves had a “party-line” aspect; government stations, the Army and Navy, commercial shipping, and amateur radio operators all shared the same general frequency range. The earliest wireless sets transmitted via an electrical spark, a technique which gave the dots and dashes a distinctive buzzing sound, but also made some signals exceptionally broad in bandwidth (DeSoto 28, 60). Imagine the cacophony of all these radio hornets buzzing at the same time!

To compound matters, there was a belief widely held by the technical mavens of the time that longer wavelengths (lower radio frequencies) would afford the longest communications distances (Wood 17). As the various wireless interests—commercial and military, government and amateur—vied for supremacy of the airwaves, it became apparent that order had to be brought to the chaos (DeSoto 28).

Those with the most to lose from regulation were the radio amateurs. From the beginning, wireless experimenters—home lab enthusiasts, self-taught electricians, and aspiring inventors—took to radio in a big way. These radio “hams”<sup>6</sup> did much to advance the radio art, but were not always held in universal regard by those with whom they shared the airwaves:

Many of them had better and more powerful stations than those used by the Navy and commercial services, and their indifference

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<sup>6</sup> To date no one has conclusively determined the origins of the term “ham”, but there is ample evidence that it was originally a pejorative. Many of the early commercial operators made the transition from landline telegraph to wireless and brought their jargon with them, including apparently the term “ham” to describe a clumsy or inconsiderate operator. The technique with which a telegrapher works the key was described as his or her “fist” (referring to how the knob of the key is gripped as dots and dashes are tapped out), and an inept operator could be said to be “ham-fisted”. Another possibility is that early amateurs operating exceptionally broad and strong spark signals “hogged” the airwaves, leading the hapless commercial operators to complain about the “hams”. It seems likely that amateur operators adopted the insult and turned it into a sobriquet (*Why Do They Call Themselves “Hams”?*).

to the pleas of these operators to cease operating when there was murderous interference was sublime. Their intolerance, which was the impersonal consequence of their obvious superiority, was equaled only by their contempt for the hapless commercial operators and their inadequate equipment. There were hundreds of high-powered amateur stations at the time, and with the Navy and commercial stations coming to only 15 or 20 percent of the total, it was the amateur who dominated the air (DeSoto 28).

As early as 1909, there were attempts to rein in the radio mess via legislation. Clinton DeSoto, author of the definitive history of amateur radio *Two Hundred Meters and Down* says, “This legislative battle, and the many which followed, were shining masterpieces of competitive intrigue” (28). Commercial interests, equipment manufacturers, the military, and of course the amateurs, each had a stake.

As one might predict, the non-commercial experimenter ham operators got what appeared to be the short end of the legislative stick. In 1911 the Alexander Bill was introduced into the House, aimed at outlawing amateur radio completely. Although it did not at first pass, a provision of a newly signed international radio treaty was incorporated into a revised version of the bill which cleared Congress to become the Radio Act of 1912 (Leinwoll 58). This treaty provision—the historic Regulation Fifteenth—would have deep ramifications, not only for the amateurs, but for all of the radio art (DeSoto 30-31).

Rather than ban amateur radio altogether, this regulation simply moved all private stations to wavelengths below 200 meters (effectively *up* in frequency). Remember, conventional wisdom of the time dictated that shorter wavelengths were of little use for long-distance communications (DeSoto 31). The hams were effectively sent off to a “radio ghetto” where they wouldn’t interfere with the commercial, military, and government stations, and where their transmitting range would be limited.

The framers of the new law, according to DeSoto, were not just intent on shuffling the potential interference away, but in stymieing the growth of amateur radio:

Limited to...a region provenly incapable of giving reliable communication except at great inefficiency and over short distances compared with the longer waves, how could amateur radio, whose thousands had previously roamed at will, a band of wild and irresponsible freebooters, over the entire territory below a thousand meters—how could it survive? Slowly its adherents would lose interest and break away. Soon it would be reduced in numbers to just a few hundreds—and then...(32).

Fate, though, has a funny way of intervening. As historian Stanley Leinwoll notes: "...of the many important contributions radio amateurs have made to the radio art over the years, this regulation, the fifteenth, would lead to the greatest contribution of all" (59).

Meanwhile, despite the legislators' intentions, the popularity of amateur radio continued to grow (DeSoto 34); the hams, though, had only a few years of getting used to their new territory before World War I shut down all amateur communications (Leinwoll 105).

The radio amateurs performed yeoman service during the Great War, putting both their operating skills and their technical expertise to the test. Records are unclear, but some 3500 to 4000 hams are estimated to have seen military service during World War I (DeSoto 52).

Once the war was over, the amateurs were keen to resume their activities—even if only from their less desirable sub-200 meter spectrum—but it would not be until the fall of 1919 before the wartime ban on transmitting was lifted. By mid-1920 the Department of Commerce had issued almost 6000 amateur licenses; returning veterans and bright young experimenters alike were ready to play in the ether (Leinwoll 105).

For better or worse, war often has a tendency to nudge technology forward. Many hams had worked with newly developed vacuum tubes while in the service and had seen first-hand how a low-powered tube transmitter could often outperform a powerful spark-gap unit (Leinwoll

105). Just as the early 1920s marked an explosion in the growth of broadcasting, so too did the era usher in a period of massive experimentation among the radio hams.

As hams worked with new continuous-wave (CW) transmitters and explored sensitive new vacuum tube receiver designs, they pushed both the state-of-the-art and communications distance barriers. The experimenters also found the new CW units generated far less interference than the old spark transmitters (Leinwoll 106). With the ready availability of vacuum tubes at reasonably affordable prices, the popularity of amateur radio soared; by mid-1921—just a year-and-a-half after the wartime ban was removed—the Department of Commerce had issued some *11,000* licenses (Leinwoll 108)!

In December of the same year, one of amateur radio's top experts—American Paul Godley (amateur callsign 2XE) temporarily set up a modern receiving station on the blustery coast of Scotland. There he was able to receive the signals of more than 30 U.S. amateur stations (Leinwoll 109). The lead story in the next month's *QST*<sup>7</sup> magazine breathlessly exclaimed: “Oh, Mr. Printer, how many exclamation points have you got? Trot ‘em all out, as we’re going to need them badly, because WE GOT ACROSS!!!!!!” (Quoted in DeSoto 73).

This was, indeed, a milestone; not only had radio effectively spanned the Atlantic<sup>8</sup>, but it had done so through the efforts of non-commercial experimenters operating on or near the 200 meter frontier (Leinwoll 109).

The hams, though, were not content with mere one-way reception; they wanted a full *two-way* contact between an American station and one across the Atlantic. It would take two

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<sup>7</sup> *QST* is the official journal of the American Radio Relay League—the national organization of ham operators—and has been published with few (mostly war-related) interruptions since its inception in 1915 (DeSoto 43).

<sup>8</sup> Marconi's tenuous 1901 reception in Newfoundland of the letter “S” sent from England is generally hailed as the first trans-oceanic radio link (Weightman 100). Some contemporary critics have argued that Marconi's operating wavelength, the time of day, and the method of transmission—spark—virtually precluded success. As scientist John S. Belrose points out though, “Whether Marconi really heard the faint dots or not is unimportant.... His claim...kick started the race, by Marconi himself and Fessenden...to achieve reliable transatlantic wireless communications” (4).

more years, but in the fall of 1923 French amateur Léon Deloy completed a Morse code exchange with U.S. ham Fred Schnell saying, “R R QRK UR SIGS QSA VY ONE FOOT FROM PHONES ON GREBE FB OM HEARTY CONGRATULATIONS THIS IS FINE DAY....”<sup>9</sup>(DeSoto 87).

It *was* a fine day. The amateurs had succeeded in bridging the ocean with two-way radio communications, but especially amazing was that they had done so not on 200 meters, but on an astounding wavelength of *100 meters*! (Leinwoll 111).

The next year brought a blur of ham radio activity: distance records fell and then were surpassed again, American amateurs made Morse contact with England, then repeated the feat using voice communications, and all the while the experimenters continued to hone and refine both equipment and techniques (Leinwoll 113). During this time the hams began to try shorter and shorter wavelengths—not so much to experiment, but to help alleviate the growing problem of interference.

In the process, the amateurs began to learn that these shorter wavelengths (or higher frequencies) performed nothing like what had been predicted (DeSoto 95). They found out that they could not only bridge very long distances, but that some bands afforded unheard of *daylight* communications over those spans. The hams learned about the properties of the ionosphere, about “skip distance,” and about seasonal variations of propagation (Leinwoll 113-115). And, this all occurred in a portion of the radio spectrum thought by the experts to be useless! For the amateurs it was like being relegated to a seemingly barren reservation only to discover unbelievably fertile soil. And oil. And gold.

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<sup>9</sup> Radio operators using Morse code—rather like today’s text-messagers—have always used sparsely spelled abbreviations and procedural signals to achieve economy of communications. My translation for Deloy’s transmission? “Received, received very intelligibly. Your signals are strong enough that I can hear you on my Grebe receiver with the headphones one foot away! Fine business, Old Man....”

The key to the amateurs' success lay in how high frequency radio waves—those between about 3 million cycles per second (3 MHz) and 30 millions cycles per second (30 MHz)—interact with the ionosphere, a region of the atmosphere from about 60 km up to almost 500 km above the earth's surface. Sunlight (or a lack thereof) causes different layers of the ionosphere to reflect, refract, or absorb radio waves depending on their frequency. High frequency (or short) waves propagate especially well over very long distances by “skipping” off the ionosphere, then back to earth, or sometimes by making multiple hops. Time of day and year, as well as an eleven year sunspot cycle, all affect which ionospheric layers will allow which radio wavelengths to skip and to where (Leinwoll 120-121). Need to communicate with a particular part of the globe? Choose your optimum frequency based on the clock and the calendar!

As one might expect, it took commercial interests only a short time to exploit the amateurs' amazing shortwave breakthrough. By the mid-1920s, for example, RCA completely abandoned plans for a worldwide network of longwave communications stations in favor of the reliability and economy of shortwave (Leinwoll 138). Remember, too, that this was the exact era in which conventional broadcasting was burgeoning; how long would it be before a new long-distance radio station took to the air?

Any student of radio history will tell you the medium is fraught with claims and counter-claims of who did what first: Popov or Marconi? De Forest or Armstrong? WHA or KDKA? Likewise historian Donald R. Browne notes that while the Soviets claim to have launched the earliest shortwave broadcasts, these were short-lived; the first (generally) continuous shortwave broadcast service aimed at an audience overseas appears to have been started in Holland in 1927 (48).



There are a number of reasons why a group or state would want to broadcast via shortwave—reasons I plan to explore in greater depth a bit later—but, for the Netherlands in 1927, mounting an international radio station was simply a matter of serving Dutch citizens stationed or living in the outposts of their widespread colonial empire. By using shortwave, the government could offer a taste of home to subjects living abroad. As Browne points out, “...it is doubtful that many listeners who were not Dutch citizens or expatriates listened to this service,” but this first step paved the way for other nations to start similar services of their own (48-49).

At about the time of the emergence of “colonial service” shortwave stations, there developed a second form of international broadcaster: what Browne dubs (for lack of a better name) the “politically ideological” station (49). I think it worth noting that of the shortwave stations still on the air in 2007, both forms are still present.

The Soviets get credit for the first “politically ideological” shortwave outlet—a station first mounted in 1927 to celebrate the tenth anniversary of the Bolshevik Revolution. Dignitaries visiting for the anniversary celebration were allowed to beam broadcasts back home; when the celebrations ended, the station stayed on the air transmitting ideological programs over what would become known as Radio Moscow (now the Voice of Russia) (Browne 50).

Domestic broadcasters also began using shortwaves, primarily for remote relays. KDKA added shortwave capability within a short time of its premier broadcast, and by 1924 had set up a network of such stations (Anderson 287), including an operation in Cleveland—KDPM—that simply retransmitted the Pittsburgh station (Barnouw 151).

Although many of these shortwave efforts showed the serious capability of the medium, others fell into the “because we can” novelty category. One such transmission involved relaying

the song “I Love You Truly” around the world, another a “conversation” between a yowling cat in Schenectady, New York and a barking dog in Sydney, Australia (Barnouw 246).

By 1930, CBS had worked out an agreement with the BBC to use the latter’s studios and facilities to relay programs and interviews with the luminaries of the day (Barnouw 248).

Shortwave was moving well beyond the “gee whiz” stage and into a useful tool for the broadcaster.

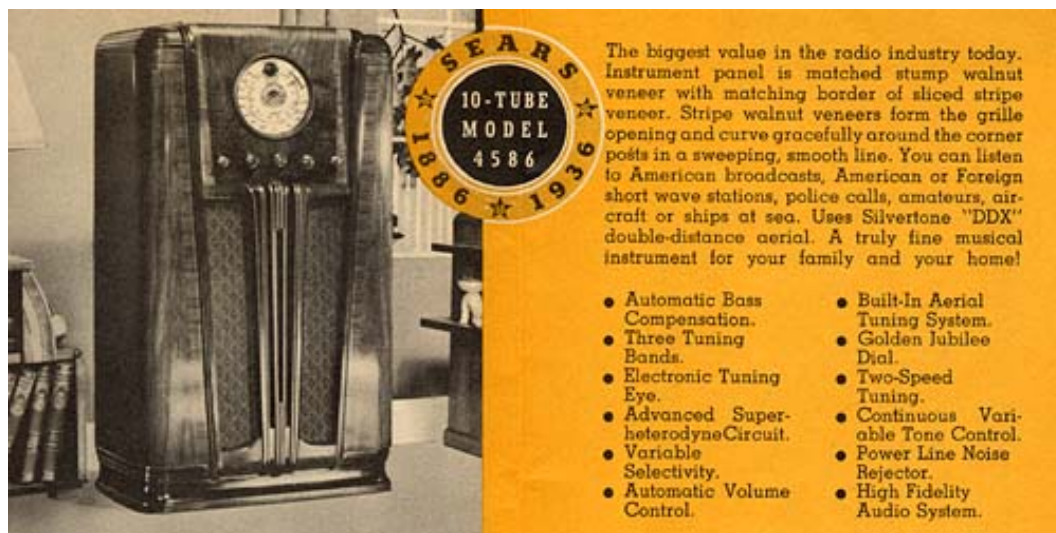
France, Belgium, and Italy added their own shortwave voices as the roster of international stations continued to grow (Shulman 4). Germany established a shortwave service as early as 1929, and Japan joined the external broadcasting community in 1934 (Browne 49).

One of the best known and most respected of international broadcasters began regular shortwave transmissions in 1932 with the advent of the British Broadcasting Corporation’s “Empire Service. Like the earlier Dutch shortwave service, the BBC’s effort was initially designed to reach subjects throughout the nation’s far-flung empire. Not long after the BBC initiated shortwave broadcasts, King George V made a Christmas Day address to the “men and women so cut off by the snows and the deserts that only voices out of the air can reach them” (*When Did the World Service Start?*).

It didn’t take long for the shortwave broadcasters to realize that they were attracting a secondary audience—listeners who weren’t expatriates or even citizens of the originating country and who had mailed in comments about what they were hearing (Browne 49). These early shortwave listeners were the pioneers who ventured beyond the familiar confines of the standard AM dial to explore and ferret out exotic voices from the ether.

During about the same period that many shortwave broadcasters were first signing on, some police departments began experimenting with radio to dispatch patrol cars. Many, if not

most, of these efforts involved one-way transmissions on frequencies right above the standard AM band (Petersen 1). Radio manufacturers responded to public interest in both the police transmissions and shortwave broadcasts by offering models with frequency coverage beyond just the standard AM band. As early as 1929 a table model shortwave radio—the Pilot A.C. Super-Wasp—hit the market, albeit in do-it-yourself kit form (Grimes 4). The brochure for one 1936 Sears Silvertone model says, “You can listen to American broadcasts, American or foreign short wave stations, police calls, amateurs, aircraft, or ships at sea” (*See Figure 4*).



**Figure 4** Brochure for 1936 Sears Silvertone console radio. From the collection of John C. Pelham.



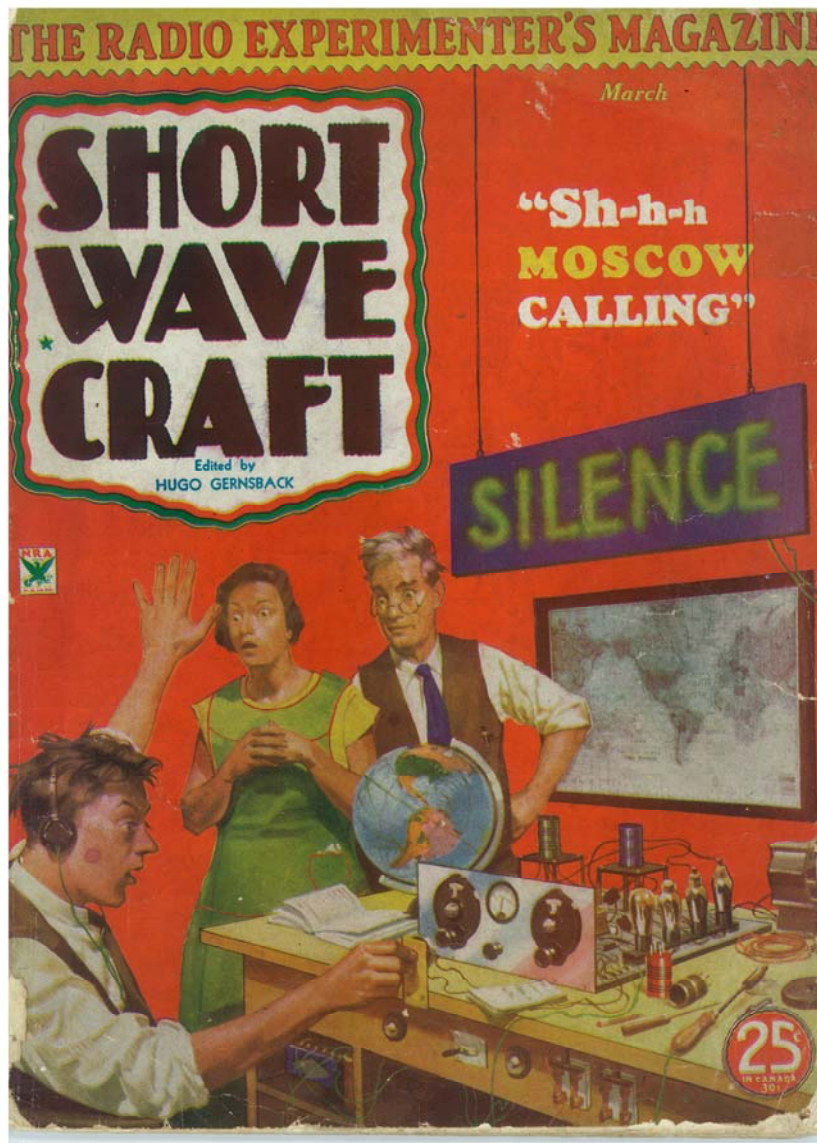
**Figure 5**  
Views of a restored 1936 Sears Silvertone console radio with shortwave bands.

The green “eye” tube was a tuning aid: the dark triangle at the bottom expanded or narrowed depending on signal strength and precision of tuning.

Photos by John C. Pelham used by permission.

Radio truly matured in the 1930s; the growth of the networks, advances in technology, refinement of programming, and the medium's role in the Great Depression have all been the subject of intense scholarship (MacDonald 27-62, Rhoades 95-169, Barnouw 235-253, et al).

During the 1930s shortwave broadcasting grew as well, with religious groups, commercial stations, and many state-run outlets adding their efforts to the international voices. The decade also saw the first volleys fired in what would become a decades-long "war of the airwaves", as I will soon explore (Browne 50-51).



**Figure 6**  
Cover of March, 1934  
*Short Wave Craft* magazine.

The interior caption reads:

"S-s-s-h! MOSCOW CALLING! The young Marconi of the family has Pa and Ma duly impressed, apparently, for they seem quite stunned indeed. This dramatic situation has undoubtedly happened in hundreds of homes, when the thrill of hearing his first DX station electrified the short-wave 'fan'".

*Short Wave Craft* was a typical hobbyist publication of the day with lots of circuit diagrams, frequency listings, etc. It was published by Hugo Gernsback, who also created *Amazing Stories* magazine, and for whom the science fiction "Hugo" award was named (*Hugo Gernsback*).

From the author's collection.

## Chapter 2

### *The Stations of Nations*

Why would any institution—especially a national government—go through the trouble and expense of building and operating an international radio station? We’ve seen at least one motivation, exemplified by the Dutch and BBC colonial services, of keeping expatriates in touch with the homeland, but why else would a country or group try to reach an external audience?

International broadcasting scholar Douglas A. Boyd offers four main reasons: “(1) to enhance national prestige, (2) to promote national interests, (3) to attempt religious or political indoctrination, and (4) to foster cultural ties” (290). Historian Donald R. Browne provides a somewhat broader view and outlines eight purposes for external broadcasting: instrument of foreign policy, mirror of society, symbolic presence, converter and sustainer, coercer and intimidator, educator, entertainer, and seller of goods (30-37).

From my perspective of over 40 years of tuning the shortwave bands, I would argue that while both taxonomies have merit, Browne’s may offer a touch more nuance and thus greater opportunity for understanding the nature of international broadcasting. I would, however, take minor exception to his category “seller of goods”: although there *are* a few commercial stations on shortwave, there is actually very little marketing of goods (other than religious items); most of the “selling” that goes on is of ideas, politics, and prestige. In that regard, I defer to Boyd.

Rather than offer an extended treatise on each of the above reasons for external broadcasting<sup>10</sup>, I will touch on some of them briefly, but then would like to return to a more historical perspective, with hopes that I can integrate these concepts into some “real world” examples, particularly with regard to the role of shortwave as a propaganda medium.

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<sup>10</sup> The reader who wishes to delve deeper into these motivations is encouraged to read Browne’s scholarly but readable 1982 text *International Radio Broadcasting: The Limits of the Limitless Medium*, published by Praeger.

As Browne points out, there is “little evidence that international radio broadcasting plays any role in policy *making*” [emphasis added], but this does not mean that the stations are not involved in foreign policy. Quite the contrary, the international station may be the executor of policies created by other agencies within a government (30-31).

The choice of languages in which a station broadcasts may involve government policy as well; an emphasis on transmitting to a specific region may reflect that area’s “hot spot” status, or be the particular focus of government initiatives, either friendly or adversarial (Browne 31).

Most external broadcasters justify their operations, at least in part, by purporting to reflect the nature of their country’s culture and society. This “mirroring” can be highly selective, though, with negative aspects downplayed and positives emphasized (Browne 33). This is not unexpected, but some stations—notably the Voice of America and the BBC—have garnered reputations for being unbiased *because* they sometimes are critical of their home countries.

Some nations have mounted shortwave operations as a matter of prestige—to show that they are “real players” on the world stage. Others began operations for one function, but continued broadcasting after that function ceased, if no other reason than to continue to electronically “wave the flag” (Browne 33).

Many of the stations still active today on shortwave fall under Browne’s “converter and sustainer” rubric, in that they are Christian evangelical stations (34). Quite a few of these stations are of the “fire and brimstone” fundamentalist type, while a few practice what I call “soft-sell evangelism”, a topic I’ll explore in greater depth later. Although it may seem incongruous to group evangelistic broadcasts with political propaganda, the two share some

similarities: they seek to convince the unconvinced and give reinforcement to the true believer; both the Gospel and Mao's "Little Red Book" have certainly been heard on shortwave (Browne 34).

Browne notes that "coercion and intimidation continue to appear as elements in international broadcasting, although seldom as blatantly as during World War II". He points out that the war "saw a far greater use of coercion and intimidation through international radio, as most of the major participants employed it to one or both of these ends" (35). The famous "Lord Haw Haw," "Lili Marlene," and "Tokyo Rose" broadcasts of the era were certainly aired as much as instruments of intimidation as of propaganda (Wood 68-69).

Whatever the purpose, though, the stuff of shortwave broadcasting—high power and high frequencies—lend themselves well to one nation's efforts to broadcast to another. Through choice of frequency and the use of directional antennas, the national broadcaster can target the area and audience desired (Church 210).

It might serve us well at this juncture to spend some time exploring the nature of propaganda, since it is so inextricably linked with shortwave broadcasting. The term "propaganda" seems to be a bit of a hot button, particularly within modern Western culture, and it often takes on a decidedly derogatory meaning equated with "lying". At its most benign, propaganda—taken from the Latin verb *propagare*, to spread or propagate—can simply be a systematic means of persuasion (not unlike advertising); at its most corrosive, propaganda can be the deliberate spreading of untruths—actual lying—in furtherance of a (frequently political) goal. A Manichean view might suggest that "bad guys" use propaganda and "good guys" tell the truth, or that "our" propaganda serves good, while "theirs" serves evil. Needless to say, this is terribly simplistic.



There is no way that I can adequately and completely discuss all of the ramifications of propaganda—this is well beyond the scope of this thesis, and certainly outside my own level of scholarship—but, if we use political scientist Harold D. Lasswell’s definition of propaganda as “the management of collective attitudes by the manipulation of significant symbols” (627) we at least have a starting point for examining propaganda in the context of international radio.

In the case of broadcasting, those “significant symbols” may be stirring music or drum beats, but are far more likely simply to be crafted language, implemented I would argue, to accomplish virtually all of the goals outlined by both Boyd and Browne. Does propaganda not have the potential to be an instrument of foreign policy, a mirror of society (albeit occasionally a funhouse mirror), a symbolic presence, a converter and sustainer, as well as a coercer and intimidator?

This is in no way to suggest that all shortwave broadcasts are propaganda—to be sure there are (and have been) stations with generally altruistic motives—but for a significant part of the history of the medium, propaganda—or at least the attempts to manage collective attitudes of *external* audiences—seems to have been a significant part of the landscape<sup>11</sup>. Whether a broadcast simply touts the beauty of a country in hopes of engendering good will or attracting tourists, or it decries the alleged hegemony or aggression of another nation, I contend there is usually the intent to achieve a political purpose through “management of collective attitudes”. Here we return to the basic question of why one country would want to broadcast to an audience in another (Church 209).

In the run-up to World War II, Germany had distinct plans for radio, not only to reach external audiences but to speak to those in the homeland. Indeed, as Wood points out:

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<sup>11</sup> I make the distinction between external and internal audiences in this case because we are discussing broadcasts aimed at listeners in other countries. Needless to say, propaganda can certainly be directed toward a homeland audience.



In 1934, when the Nazi party staged a putsch in Vienna, the first move was not towards the government buildings but to the radio station and its studio, from which they broadcast their version of truth to the world. This was the first practical demonstration of the newly acquired strategic status of the radio transmitter. It was a pattern that was to be repeated over and over again in the war in Europe that was to follow (66).

After the outbreak of war, the Nazis seized control of key radio stations as they marched across Europe; they also began constructing powerful new transmitters, and by summer's end in 1940, the Germans had control of almost every radio station in the continent (Wood 67).

And yet, as the German external propaganda voice grew in power and reach, Hitler himself saw radio in a somewhat different light—that of morale booster and as a source of stability in occupied lands. While the Nazis controlled the stations across Europe, day-to-day operations continued under the auspices of the occupied governments. This was done in an effort to maintain economic stability and good will (as such) between occupier and the occupied (Wood 68).

But, the Nazis also used at least twelve shortwave transmitters on four different bands, plus powerful medium-wave outlets to reach overseas audiences. The programs they offered were works of German craftsmanship: entertaining and refined, with high production values and a decidedly positive slant on German life. These broadcasts also offered contests and competitions, the prizes for which would be items of Nazi paraphernalia, replete with swastikas! Although German broadcasts of the mid-1930s sometimes offered criticism of the British, the strongest attacks were reserved for the Russian Bolsheviks (Wood 40).

By 1938 the propaganda role of shortwave broadcasting in Europe was set; as Wood notes, “[it] had given ample evidence of its potential as a weapon of cold war and in laying the seeds of a real war” (42). The radio war of words heated up right along with the actual war and

both the Allies and the Axis engaged in various broadcasts designed to undermine, confuse, and/or demoralize the enemy. Browne analyzed transcripts of the era and notes certain themes seem to inform these transmissions:

“We have the strength to win.”

“Your friends (both allies and fellow citizens) aren’t your friend.”

“If you think it’s tough now, just wait.”

“Your leaders are misleading you.”

“The world we’re struggling to create will be a better world” (66-67).

The content of these propaganda broadcasts could be as direct as calls for soldiers to lay down their weapons, or as subtle as “slice-of-life” dramas portraying the quiet resolve of a country’s citizens (Browne 67-71).

The British, responding to both actual bombs and the bombast of Nazi broadcasts, redoubled their radio efforts:

The expenditure on broadcasting equipment by the British during the war years was staggering. In the normally accepted sense of war, its importance would not rank higher than expenditure on military weapons; but Britain was not in a position to pursue a military war against Germany, having been evicted from France in May of 1940. Seen in this context, it is easier to understand why it assumed the importance it did (Wood 60).

Churchill was reportedly fascinated with radio propaganda and was particularly fixated on the construction of a transmitter powerful enough to reach Berlin (Browne 65).

But, where were the Americans in this “war of the waves”? Had not the U.S. led the way with the development of shortwave broadcasting? At the outbreak of the war, there *were* American shortwave stations, but these were privately run commercial operations—relay stations of the big networks, re-broadcasters of local stations, and other special interest outlets (Wood 76-

77). Simply put, when World War II broke out, the United States had no government-run external broadcasting service.

It would take the bombing of Pearl Harbor and some “behind the microphone” philosophical and bureaucratic battles before America would add its own voice to the shortwave chorus.

### Chapter 3

#### *America Finds its Voice*

Was America's late entry into the world of state-run international broadcasting a reflection of pre-war isolation, an inherent cultural reaction to the concept of propaganda, suspicion of the notion of government media, representative of the generally commercial nature of U.S. broadcasting, or perhaps a little of all of these? Regardless, America finally *did* enter the radio war of words, and did so just 79 days after the Japanese attacked Pearl Harbor (Heil 32).

That attack, James Wood notes, changed America's attitude toward just about everything, including international broadcasting: "Although successive governments had been slow to realize the value of sound broadcasting as a propaganda weapon, the US Government under Roosevelt took immediate steps to correct previous deficiencies in this direction. However, the problems in the way were immense" (75).

Not the least of these immense problems was a lack of actual radio stations from which to broadcast. The newly formed Office of War Information (OWI), acting under direct control of the White House, found a ready solution by virtually commandeering—albeit for a price<sup>12</sup>—the shortwave transmitters run by commercial broadcasters NBC, CBS, Crosley Radio, Westinghouse Electric, and the Worldwide Broadcasting Corporation (Weldon 82).

If the technical challenges of lashing together such a network would prove daunting, they would be nothing in comparison to the philosophical and bureaucratic battles that would come with cobbling together both a mission for this fledgling American voice, as well as the personnel to accomplish it.

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<sup>12</sup> There was talk at the time of nationalizing the shortwave broadcasters, but ultimately the government contracted with the companies to air their programs on a cost-only basis. This plan gave the government immediate outlets for their programs and allowed the commercial broadcasters to remain in control of their stations, all while avoiding any appearance of their making a profit off of the war effort (Wood 77). As an aside, I cannot help but note the stark contrast between the corporate attitudes of the World War II era with the unblushing endorsement of war-derived profits exhibited by not a few companies today.

The agencies involved with mounting this international broadcasting effort formed—to use an all-too-apt cliché—an alphabet soup. The COI, FIS, the aforementioned OWI, and even the OSS had or tried to have a say in what role the new station would play and say. These were, respectively, the Coordinator of Information, the Foreign Information Service, Office of War Information, and the Office of Strategic Services, the wartime predecessor of the CIA (Shulman 16-18, 93).

Anyone who has worked for or with the government can attest that different agencies or even directorates within a single agency can exhibit rivalries, even in a time of war. Different philosophies, management styles, and political outlooks can shape a goal and inform how it is pursued.

Likewise, although the reason—alarm over Nazi propaganda—was sufficient to precipitate the creation of a new American external radio service, the nature of the broadcasts was not immediately clear. Should this station be involved with cloak-and-dagger matters the way the BBC sometimes was? Should the station try to match the Nazi propaganda machine at its own game? Should this be the radio voice that calls the occupied peoples of Europe to rise up against their oppressors? Should it offer what we now call “spin” or simply the truth? (Shulman 14-33).

For President Roosevelt the perfect person to sort this through was his speech writer, the renowned playwright Robert Sherwood. Liberal, but not “too left-wing”, Sherwood had a stellar reputation and virtually no political enemies. Sherwood took the threat of Nazi tyranny all too seriously (Shulman 18), but he also strongly believed that his country’s new international radio presence should concentrate on news about America and America’s war effort, and that the

answer to Axis propaganda lay not in carefully crafted stage pieces, but from “the power of truth” (Meserve 175).

Sherwood thought that real events about real people, along with speeches by government officials, all crafted into listenable radio programs, could do more to highlight Allied morale and undermine the enemy’s will than anything else, and he set about assembling those who could best execute such a policy (Shulman 18).

He recruited journalistic luminaries like *New York Herald Tribune* foreign news editor Joseph Barnes and CBS’s Edd Johnson, as well as renowned actor and director John Houseman to head production (Heil 33-34).

From offices and studios in New York, the Foreign Information Service (FIS) of the Office of War Information (OWI), was soon ready to add a new set of letters to the alphabet soup: VOA—the Voice of America.

At 2:30 a.m. on February 25, 1942, author and banker William Harlan Hale became the Voice of America’s first announcer saying, “We bring you Voices from America. Today, and daily from now on, we shall speak to you about America and the war. The news may be good for us. The news may be bad. But we shall tell you the truth” (quoted in Heil 32).

Telling the truth was not sufficient for some; Colonel William “Wild Bill” Donovan<sup>13</sup>, who would later helm the wartime spy agency Office of Strategic Services, had been instrumental in getting the Voice of America going, but he saw a more covert “psy-ops” role for the station (Heil 40). As historian Holly Cowan Shuman notes in her history of the VOA and its propaganda role, “For Donovan, propaganda was not a news service; it was a weapon that used

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<sup>13</sup> Donovan was a friend and colleague of British master spy William Stephenson, the subject of a book and TV mini-series entitled “A Man Called Intrepid” (Shulman 14).

news as guns fire bullets. He wanted to persuade listeners in Europe to fight the Axis, and he did not care whether propaganda carefully stuck to the truth or not” (14).

There were tensions, too, between those crafting the broadcasts in the New York studios of the Voice of America, and overseers in Washington. Some of this reflected the geographic separation between the groups, some the agendas of the respective participants (Heil 35).

Personality and political squabbles may have precipitated changes in the players, but ultimately the Office of War Information pressed ahead with expansion of the Voice of America, adding ambitious new transmitter sites to their plans (Wood 78). By summer of 1944, the VOA had a staff of 3,000 and broadcast in more than forty different languages (Heil 44).

As the war progressed, the Voice’s policy of truth-telling proved to be the right choice; listeners in occupied lands later testified that the VOA’s coverage of bad news and battlefield setbacks for the Allies convinced them that the station was truthful (Heil 44).

Victory in Europe came in May of 1945 and the Japanese surrender took place the following August. With the end of the war, the OWI was dismantled and the Voice of America’s future looked cloudy (Heil 45). What role, if any, would there be for a program designed to disseminate American information abroad in the post-war era?

## **Chapter 4**

### ***Cold War, Heated Voices***

The end of World War II brought about the beginning of a new world political climate that would dominate international broadcasting for most of the next 40 years. Winston Churchill described an “Iron Curtain” descending across Eastern Europe and the Soviet Union began broadcasting sharp verbal attacks on their former allies in the West (Heil 47).

Meanwhile, more than 200 members of Congress who had visited post-war Europe discovered that the United States was on the stinging end of continuing criticism, particularly from the Iron Curtain nations (Browne 97-98). The Voice of America launched its Russian Service in February of 1947 to counter these attacks, and the following fall, a joint congressional committee concluded that America desperately needed to revitalize its international information program—a program lagging far behind those of the Soviet Union, England, and even the Netherlands (Heil 47).

In January of 1948, Congress passed and President Truman signed into law the United States Information and Educational Exchange Act (sometimes called the Smith-Mundt Act or Public Law 402). This new law set into motion a concerted effort by the U.S. government to “promote a better understanding of the United States in other countries, and to increase mutual understanding between the people of the United States and other countries”. Could Radio Moscow’s virulence be the catalyst for saving the VOA? (Heil 47).

The Voice of America now had a new mission, new funding, and some new guidelines. As VOA historian Alan L. Heil, Jr. points out:

“The law made clear...that no product of U.S. government agencies, including VOA, could be disseminated within the United States. In 1948, memories of Nazi Germany’s propaganda machine were still fresh, and Congress wanted to make certain that



no government agency could ever be used to influence American citizens the way Hitler had used his German information service (48).

But, while state financing of broadcasts aimed only at distant constituencies may circumvent the likelihood of domestic propagandizing, the scheme has some downsides, as I will discuss in a later chapter.

1948 was quite a year; the Marshall Plan promised aid to countries willing to renounce communism (Wood 105), as the Soviets blockaded Berlin and Czechoslovakia fell to the Communists (Heil 48). The Voice of America nonetheless maintained a positive, pro-American tone to its broadcasts. By time the Korean war broke out in 1950, the kid gloves were off; President Truman launched a “Campaign of Truth” and called upon all American media to “promote the truth about America in order to combat Communist distortions” (Browne 98). The Cold War was in full swing.

The clash between capitalism and communism may have been one impetus for the Cold War, but, as Wood notes, “...the fact remains that the existence of the atomic bomb and the means of delivery, supported by an onslaught of propaganda broadcasting, made the world unsafe” (105).

The airwaves crackled with accusations and counter-accusations. The British, who had mothballed one of their main shortwave sites as a post-war economy move, turned the transmitters back on to air a barrage of propaganda. The Soviets responded in kind with jamming, and the Brits retaliated by dropping some broadcasts to friendly nations in order to use those transmitters to reach the Eastern Bloc (Wood 105-106).

Shortwave radio’s ability to transcend borders made it a key weapon in the war of words, particularly because of its capability of bypassing other media and going directly to the listener.

While international broadcasting in World War II sometimes took on the cloak of covert operations, Cold War broadcasting became—despite the sometimes virulent nature of the content—a much more overt process. As Wood observes, “This change in status was responsible for much of the growth rate that has characterized international broadcasting since the 1950s” (106).

And, as the ideological battle heated up, so too did an arms race of sorts, with broadcasters employing higher and higher powered transmitters. Likewise, nations seeking to block these broadcasts resorted to new jamming schemes (Wood 106). Unlike domestic broadcasters, shortwave stations generally do not remain on a single channel all day, but change frequencies and bands in order to best reach target listeners. Stations trying to avoid jamming tend to change frequencies even more often, and frequently send out the same program on multiple bands and channels.

By the late 1950s, some 31 nations were broadcasting to an international audience. Over the next three decades, dozens more would add their radio voices to the chorus (Wood 107). While many of these were partisan battlers, many were not; they served other interests—cultural, religious, and political (among others)—and did so in ways less confrontational and subversive than the hard-line Cold Warriors.

## Chapter 5

### *Surfing the Shortwaves*

While propaganda may have been a substantial part of shortwave broadcasting during the Cold War years, not every program had an “in-your-face” political quality. Although much of Western international broadcasting *was* aimed at the Eastern Bloc, many programs—in fact, many stations—offered an ideological “soft sell” through popular music, cultural commentaries, dramas, magazine shows, and the like. The government sponsors of these stations may well have had a foreign policy aim, but that purpose could be as simple as “this is who we are as a people”.

An excellent example of this would be the Canadian Broadcasting Corporation’s International Service (now known as Radio Canada International), which, according to longtime Canadian broadcaster Ian McFarland:

...served a useful purpose for anyone in Europe who was thinking about immigrating to Canada in the post war years. At the very outset, when the I.S. went on the air in 1945 it was largely a service to Canadian troops in Europe who were in the process of being demobbed [demobilized] and sent back to Canada. After all the troops were back home the main I.S. purpose was telling the world about Canada. Living so close to the USA we tend to be looked upon as an appendage to the U.S., so it is important for us to explain to the world that while we are North Americans we are not *northern* [emphasis added] Americans (E-mail interview).

A host of other stations offered listenable programs designed to give those who tuned in a window into the culture of their country. After the war, for example, there was a growing German interest in “telling the world about Germany” and by 1953, Deutsche Welle (the “German Wave”) was on the air (Browne 191). Deutsche Welle grew rapidly through the 1960s and 70s, adding dozens of new language services and improved transmitter sites to air them (Browne 192).

The Dutch, who had started the first regular shortwave service to its colonies in 1927, sought a broader audience after the war. While Radio Nederland (now Radio Netherlands) chose not to be involved in the Cold War and aimed few of its broadcasts to the Eastern Bloc, it continued servicing its former colonies and other regions with Dutch interests, all while expanding programs aimed at developing nations (Browne 1999).

Radio Nederland also broadcast the longest-running shortwave show (and one of the longest running programs on any medium), “The Happy Station”, which entertained listeners with a mix of contemporary and nostalgic music, features on Dutch culture, and light chatter from 1928 until its cancellation in 1995 (*Happy Station Show*). (See *Appendix* for an audio clip).

As a teenager I was a great fan of Radio Nederland’s request program “His and Hers” hosted by husband-and-wife team Jerry and Dody Cowan<sup>14</sup>. I even mailed in my own “long distance dedication” and had them play a Simon and Garfunkel tune for my high-school sweetheart who was away at summer camp! My then girlfriend probably would have appreciated the gesture more had she owned a shortwave radio.

Other countries offered listenable, largely non-propaganda fare. I can recall stations such as Radio Sweden, Swiss Radio International, Radio Japan and Radio Australia offering national and international news, feature programs, magazine shows, and music. These programs often reflected the culture of their originating countries as much by their production values as by their content.

The Voice of America meanwhile sought to tell the world about the nature of U.S. culture through that distinctly American synthesis of African and Caribbean musical traditions, jazz. The music some have called “the music of freedom” became a hallmark of VOA broadcasts.

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<sup>14</sup> I confess for the first time publicly here that I had an intense “shortwave crush” on Dody Cowan, whose on-air delivery was sparkling and fun and tinged with lightly-accented mischief.

Jazz had tremendous appeal to overseas audiences and VOA broadcasts of the music proved exceptionally popular. They also made an international superstar of one American who, because of the law prohibiting the Voice from broadcasting to the U.S., was comparatively unknown in his home country (Heil 289).

Willis Conover had a deep, resonant voice, a measured and deliberate style of announcing, and an encyclopedic knowledge of jazz and jazz musicians, all of which—with the great music—made his programs on the Voice of America wildly popular. For more than 40 years, Conover held court on the VOA, spinning discs of jazz greats like Armstrong, Basie, Coltrane, and Gillespie. For more than 40 years he held his audience—many behind the Iron Curtain—in rapt attention (Heil 289-290).

Jazz virtuoso Adam Makowicz was a teenager studying classical piano in 1950s Poland when he discovered Willis Conover and his remarkable music:

...a friend brought [in] a shortwave radio, a scarcity at the time, and a group of us congregated around it to listen to that new, enchanting, improvised music coming from Willis' program on the Voice of America. We were hooked! From then on, every night at 11 p.m. sharp, we tuned to shortwave to await, with anticipation, what would follow the famous "Take the 'A' Train" theme, and the announcement *This is Music USA—Jazz Hour*. Willis spoke to us distinctly and slowly, so that even those of us who knew very little English could understand.... That music, open to improvisation, coming from a free country, was "our hour of freedom": music we had not known before; it was our hope and joy which helped us to survive dark days of censorship and other oppression (quoted in Heil, 290).

Conover grabbed my attention, too, and his programs on the VOA are among my earliest shortwave memories; although I was not a jazz fan *per se*, I found his shows magnetic and mesmerizing. Conover died in 1996, and while we can probably never know how many cracks

his broadcasts cut into the Iron Curtain, who can argue that American jazz and Willis Conover didn't play a part in the Curtain's fall? (Heil 289).

Jazz has certainly not been the only thing aired on the Voice of America; of course news, history and public affairs programs have all been a significant part of the programming mix. For many years, the "Breakfast Show" offered a lively mix of news, topical conversation, and music<sup>15</sup>. The Voice also aired some programs spoken slowly and with deliberate pronunciation in a style called "Special English". (See *Appendix* for an audio example).

The VOA has certainly been one of the powerhouse players of post-war international broadcasting. The other titan of the shortwaves has been the external arm of the British Broadcasting Corporation; no discussion of shortwave would be complete without mentioning the BBC World Service.

The BBC developed (some would argue *cultivated*) a reputation for impeccable honesty, integrity, and balance in its broadcasts. The former Empire Service came of age during World War II; its straightforward reportage sometimes drew the ire of British officials, but cemented the trust of listeners on both sides of the battle lines. As radio historian Donald R. Browne observes:

It was possible for German radio to announce the *Luftwaffe* had shot down, say, 20 British planes, and for BBC to announce that Britain had lost 21. This probably made some listeners wonder at BBC's sanity or loyalty, but it also helped to insure that, when BBC said that 25 German planes had been shot down and German radio said that five had been lost, the British account would be believed (162).

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<sup>15</sup> Although the VOA was prohibited from broadcasting to America that did not mean listeners in the U.S. were prohibited from tuning in. Over the years I often heard the "Breakfast Show", particularly because of the time differences between North America and the target listening zones of Europe. Their breakfast time occurred during our late night—prime listening time for hardcore shortwave enthusiasts and confirmed night owls, of which I was both.

This truth-telling style initially may have had less-than-altruistic motivations; propagandists envisioned a plan whereby the BBC could broadcast accurately for years, and then when the circumstances demanded, the station could transmit deceptive information that would be completely believable (Crossman 323).

Such deviousness seems not to have come much into play. Although the BBC did engage in transmitting coded messages during the war, these were aimed at Allied and resistance operatives working behind the lines (Browne 163). All in all, the BBC's reputation as a straight-talker seems well-earned and deserved.

Following the war, the BBC external services faced both the dreadful state of the British economy and the same questions the VOA had about the future role of international broadcasting. But, the efforts of British "internationalists" and a growing fear of communism assured the continuation of the BBC's international radio efforts (Browne 163).

The main product of the BBC World Service has been news; with an impressively large stable of correspondents worldwide, the BBC has consistently covered the world's hot-spots rapidly and accurately (Browne 171). But, for many years the World Service also offered a peek into British culture through quiz programs like "The Brain of Britain" and "My Word", popular music shows such as "Top of the Pops" and "A Jolly Good Show", along with sports coverage, classical concerts, arts reviews, science programs, radio dramas, book readings, and so on<sup>16</sup>.

Both the BBC World Service and the Voice of America have been "go to" stations during times of crisis. When world events have heated up, listeners have tuned to one or the other or both to get the latest news and information. I am only speculating, but I believe America's

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<sup>16</sup> Within the last several years I have noticed the BBC World Service seems to have shed much of its more entertaining and eclectic fare in favor of a schedule dominated by documentaries and news, especially about and aimed toward developing nations in Africa and Asia. Re-runs of "My Word"—a particularly witty panel game about words and language—occasionally pop up on U.S. public radio stations. The "Brain of Britain"—a general knowledge quiz—to my knowledge still airs, but not on the World Service.

sometimes contentious role on the world stage often may give the BBC a slight edge as to which station is the greater “authority” in times of trouble.

And speaking of contention on the world stage, so far my discussion has had a decidedly Western perspective. One reason for this is that my own experience has been that of a listener in North America. More significantly though, in this chapter I have been concentrating on those stations and programs that reflected the culture of the originating countries with less overt propaganda; in that regard, frankly, I have barely scratched the surface.

Stations like the late, lamented Swiss Radio International, Radio Sweden and the Pacific powerhouses Radio Australia and Radio New Zealand International deserve mention, too, because they, like numerous other shortwave stations, consistently offered programs entertaining and interesting enough to transcend the novelty of coming from far away. Although I have touched upon Deutsche Welle and Radio Canada International, these have also been windows into the collective psyches of their originating countries and deserve more than the passing reference I’ve given them. There are these and many more like them.

But, I would be remiss if I didn’t at least touch on the nature of programming from the Eastern Bloc. Yes, as a young radio enthusiast I listened to these, too, and even corresponded with a few (possibly to the consternation of my letter carrier); for several years I even received from Radio Sofia Bulgaria a *martinitsa*—a red and white tassel symbolizing spring—which I wore with pride even though I found the station’s programs almost painful to listen to. The truth is, Radio Sofia, Radio Prague, Radio Tirana, to a somewhat lesser degree Radio Budapest, and the inescapably ubiquitous Radio Moscow offered a degree of the exotic and forbidden coming from communist countries; their programs, though, were for the most part dreary.



There tended to be somewhat of a drab sameness to broadcasts from behind the Iron Curtain; even music seemed to possess a morose quality. As I mentioned in the Preface to this thesis (and then only slightly tongue-in-cheek), many of the Eastern Bloc broadcasts consisted of dry recitations of statistics charged only with the optimism of the latest Five Year Plan and denunciations of the United States. This is not to suggest that all of the communist broadcasts were exactly alike—there were variations in production values and cultural content—but, a certain “collective farm uniformity” flavored most of the works of what Browne calls the “Red Chorus” (249).

Of course, the grand master of the Iron Curtain broadcasters was Radio Moscow. Radio Moscow did offer some interesting classical music programs and some entertaining question and answer programs, but a great deal of their considerable output extolled the virtues of communism while taking the United States to task for alleged imperialism, aggression and hegemony. At the height of the Cold War, Radio Moscow frequently could be heard simultaneously at a great many different spots over the active shortwave bands; some of those broadcasts were within just a few kilohertz of each other.

Of the station’s programming Browne says:

With enough listening to Radio Moscow, one becomes aware of a heavy and continuing concentration on certain themes, almost as if a sort of *credo* were being recited. One of the strongest elements in this *credo* is “the workers and peasants are the foundation of the Soviet Union and of any true socialist state” (233).

Other themes including the importance of young people and women in Soviet society, the USSR’s economic strength, the country’s desire for peace but readiness for war, and the triumph of communism over capitalism informed Radio Moscow broadcasts (Browne 233).

A neophyte shortwave listener in almost any year between the 1950s and the fall of the Soviet Union would likely find Radio Moscow at several places on his or her dial, but the same could also be said about the VOA or the BBC World Service. That listener could find the didactic and the entertaining, the drearily dogmatic and the remarkably revealing, unfiltered truth and unabashed propaganda, all with the spin of the dial.

And, while a great many of the shortwave stations dealt with news, culture, politics, and the clash of ideologies, quite a few had entirely different missions—in the purest sense of the word—as I’ll explore next.

## Chapter 6

### *Christ, the Qur'an, and Capitalism*

Religion has been a part of broadcasting since there has been such. If we consider Fessenden's 1906 broadcast the premiere, we might also consider it the first *religious* broadcast if for no other reason than it included a Bible verse (Raby 127-128). And, as Browne points out, U.S. stations owned by religious groups and churches have been on the scene since the early 1920s (299).

And if your religion requires you to spread its message with the same zeal with which you would throw a life-preserver to someone drowning, what better way to propagate that message than radio? With its world-spanning, border-crossing capability, it should be no surprise that shortwave would appeal to faith organizations, particularly those with an evangelistic bent.

One of the earliest and most prominent Christian shortwave outlets began broadcasting from Quito, Ecuador in December of 1931 (Graham). HCJB—its call letters signifying “Heralding Christ Jesus’ Blessings” or “Hoy Cristo Jesus Bendice” (“Today Christ Jesus Blesses”)—is a U.S. based missionary broadcaster whose station “high in the Andes”<sup>17</sup> blasted a powerful signal that was exceptionally easy to receive in the States.

HCJB was not the first religious shortwave station—that honor falls to Vatican Radio, which began broadcasts in February of 1931—but, it certainly became one of the best known. And, although these two stations have a common birth-year and are both religious outlets, they represent two inherently different philosophies (and not merely Protestantism versus Catholicism); Vatican Radio's transmissions have tended toward sermons, talks, masses, etc. aimed at sustaining the existing Catholic in far-flung areas, while HCJB's efforts have tended to

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<sup>17</sup> Announcers have traditionally identified the station with a geographical reference, “From high in the Andes, this is HCJB Quito, Ecuador”.

proselytize and evangelize as well as sustain. In short, Vatican Radio looked to serve the already churched, HCJB the unchurched, those of other sects, and those who had not embraced the faith<sup>18</sup> (Browne 299).

Over my years of listening I have noticed that HCJB's approach has been decidedly "soft sell"; rather than relying on the stereotypical "fire and brimstone" often associated with radio evangelism, the station has tended to offer secular-flavored news, cultural, and magazine-style programs along with the more overtly religious. The latter of these often told stories of personal triumph over tragedy and examples of God's love as opposed to broadcasting diatribes about sin and threats of damnation.

This "soft evangelism" can produce some interesting results; a listener who happens upon a secular-sounding program may stay to hear the broadcast even when religion begins to creep in. In my own experience, I tend to bypass hardcore "bible thumping", but have often been drawn into HCJB's programs<sup>19</sup>. Soft evangelism is not without its critics, though, as Allen Graham, HCJB's Director of Training for Latin America explains:

We've actually been criticized by some other Christian broadcasters. We were very committed to not being offensive in our programming, feeling the responsibility was to present the Gospel and from there let the person make a decision and to find out more information or not find out more information, but it wasn't necessary for us to threaten or to coerce. We're still committed to that (Personal interview).

Although it is less common in the genre, other evangelical stations have adopted the HCJB approach. Paul Ladd is Director of Listener Follow-Up for shortwave station KNLS:

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<sup>18</sup> This is not to suggest that HCJB's programming was not meant to sustain the believer—indeed much of the station's work over the years has been aimed at those believed unable to openly practice their faith, but the station's activities were (and are) clearly of a missionary nature (Browne 305).

<sup>19</sup> I have also been chagrined on occasion when I have stumbled across a particularly interesting program only to learn of its evangelistic nature. I don't remember the exact circumstances, but I seem to recall one such program about collecting rare stamps that segued with, "And collecting stamps is a lot like collecting souls...."

Our mission is to bring a positive Christian message to show people there's a better way to live; a lot of people who listen don't have freedom, a lot...have never even heard of God. We're kind of the front lines; we're kind of introducing them: this is God; God cares about you. We don't do a lot of heavy-duty preaching and stuff, that's for other people to do. We don't do that. Our format is magazine-style; we have music and we also have feature reports about things going on in America. Our format could be described as "NPR got religion" (Personal interview).

The decades following World War II saw quite a few religious organizations mount international broadcasting operations. Groups like the Far East Broadcasting Company (FEBC), the Far East Broadcasting Association (an offspring of FEBC), Trans World Radio (TWR) and other radio ministries set up shortwave stations in various parts of the globe, aimed at disparate audiences in a wide range of languages and with a spectrum of evangelical Christian messages (Browne 302).

Many of the religious broadcasts one might hear on shortwave represent fairly mainstream Protestant Christianity, but others evince stronger political views, fierce anti-communist attitudes, or more fundamentalist, sectarian, and apocalyptic doctrines.

Over about the last two and a half decades the number of privately owned shortwave stations in the United States has grown substantially; many of these carry religious programs or are owned by ministries or other religious organizations. Of the 23 non-government shortwave stations authorized<sup>20</sup> in the U.S., 16 are owned outright by religious groups; three others carry

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<sup>20</sup> Not all stations are actually on the air; FCC records show station ownership and technical details such as transmitter power and antenna type, but do not necessarily reflect actual operation. I have compared FCC license data with listings in the 2007 edition of the *World Radio TV Handbook*, the comprehensive directory of the world's broadcasters, and with various station-sponsored websites to try to determine an accurate snapshot of who is on air and who is not. At least three authorized stations—including New Orleans' WRNO Worldwide—are not actually on the air at this writing (WRTH 496-500).

mostly or entirely religious programs on a for-hire basis, and one—WBCQ “The Planet”—airs some religious programs for hire among other fare<sup>21</sup> (*FCC HF Stations*).

The growth of modern private American shortwave stations can largely be traced to the efforts of the late Joseph M. Costello, a New Orleans broadcaster and entrepreneur. He was owner of several Gulf Coast area radio stations including WRNO—billed as the “Rock of New Orleans”—one of the first FM stations in the area to program rock music (D. Brown 1).

Costello was also a ham radio operator and sufficiently wealthy to pursue the dream of expanding WRNO into an international voice. He envisioned a commercial shortwave station from which he could not only broadcast rock and roll, but air advertisements for national and international sponsors. Although there had been earlier commercial shortwave stations in the U.S., the FCC was at first reluctant to grant Costello a license (D. Brown 2).

Whether the FCC based its initial refusal to license on an interpretation of the Smith-Mundt Act that banned the Voice of America from broadcasting domestically or whether the agency was simply unhappy with the concept of commercial shortwave remains unclear, but ultimately Costello prevailed. In the late 1970s he won a precedent-setting decision that gave him the go-ahead to build and operate his shortwave station (D. Brown 2).

WRNO Worldwide signed onto the shortwave bands in 1982 carrying album-oriented rock music, jazz programs, as well as Saints and LSU football. And although Costello never reaped the financial rewards he envisioned from the station<sup>22</sup>, he had opened up the gates for other privately-owned shortwave stations to follow. His goals in starting the station were essentially steeped in capitalism, but WRNO eventually ended up joining the ranks of religious

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<sup>21</sup> WBCQ, Monticello, Maine is a station deserving of its own thesis. Its pay-to-play “free speech” format provides an eclectic mix of offbeat (and sometimes rabid) politics, music, parody, re-creations of old radio shows, ham radio discussions, and, of course, religion.

<sup>22</sup> Advertisers tend to want hard data about listeners, and performing market research with a widespread or overseas audience can be challenging and expensive when it is possible at all.

broadcasters, at first with paid programs, then after Costello's death with the acquisition of the station by Good News World Outreach ministries <sup>23</sup>(D. Brown 3).

The relatively small number of for-profit shortwave stations may be an indicator of the financial challenges inherent in such an operation. Shortwave stations generally need a fair amount of land for their antenna systems and the electricity demands of even modern, efficient transmitters can be expensive. The conventional commercial radio model of selling spot advertisements does not seem to work for the shortwave broadcaster as Jeff White, proprietor of WRMI, Radio Miami International points out:

There are, in fact, very few truly commercial shortwave stations. Most are government-sponsored, and some are owned by religious organizations and operated as non-profit institutions. The handful of commercial shortwave stations have been generally unable to sell spot commercials to sponsor their own programming, so they survive by selling blocks of airtime to outside organizations which are mainly religious and political organizations. So, even the commercial stations transmit primarily non-commercial religious or political programming (E-mail interview).

The number of shortwave stations airing evangelical Christian programming is sufficient enough to give a casual listener the impression that no other religions are represented on the medium, and indeed as Browne points out, "The vast majority of religious broadcasting is done by Christian organizations" (309). The world's other significant evangelical faith—Islam—is not without its stations, but in societies with no separation of religion and state it may be hard to tell which broadcaster represents the government and which the mosque (Browne 309).

Being a non-Arabic speaking listener in North America makes it very difficult for me to adequately comment on Islamic shortwave broadcasts; I have certainly heard what I believe to be Arabic language broadcasts and possibly calls to prayer and Qur'anic programs, but the only

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<sup>23</sup> WRNO Worldwide has been off the air since before Hurricane Katrina—reportedly because of transmitter problems, then as a result of storm damage to the antenna feed line. See *Figure 17* on page 96 for a photo.

program I can state unequivocally as being Islamic came from Radio Cairo<sup>24</sup>. My attempts to positively determine which other shortwave stations air readings of the Holy Qur'an or other Islamic programs have been largely fruitless. Browne mentions the "Voice of the Holy Koran" as having signed on from Egypt in 1964, but I can find no contemporary references to this station (309).

As a related aside, I own what is known as a "Free To Air" (FTA) satellite receiver which allows me to watch a variety of non-subscription television channels, most international in nature. I can certainly confirm that I can receive Islamic TV broadcasts in Arabic, Urdu, and English with the FTA receiver, along with what are likely Islamic radio channels, but again not speaking the languages involved I am unable to confirm this<sup>25</sup>.

There are also a great many Christian evangelical stations available on the FTA receiver as well, and in a variety of languages. But, picking up these stations and their secular counterparts is a very different experience from listening to the shortwave radio.

Of course, I might argue that listening to the shortwave radio is unlike anything else, as I will examine more closely in the next chapter.

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<sup>24</sup> I happened to hear Radio Cairo's "The Holy Qur'an and its Meanings" broadcast just as I was finishing this thesis. The broadcast had recitations of verses from the Qur'an in Arabic followed by English translations. In over 40 years of shortwave listening, this was the first time I could say for certain I was hearing an Islamic religious broadcast, although I am reasonably sure I have heard countless others that I simply could not verify as such.

<sup>25</sup> I will touch on FTA satellite reception as an analog to shortwave listening in a later chapter.



## Chapter 7

### *Zen and the Art of Shortwave Listening*

Before moving on to the contemporary shortwave scene and an examination of the changes I believe are pandemic to the medium, I would like to take a few moments to discuss the nature of the shortwave listening experience. As I mentioned earlier, I have been a lifelong listener, and given the opportunity I can certainly wax poetic about the nature of exploring the ether. In this chapter I hope to capture some of the essence of shortwave radio listening from the enthusiast's perspective, along with some thoughts from broadcasters as well.

While we may have become jaded by the ease and rapidity by which we can communicate around the world via the Internet, satellites, cell phones and the like, there is still something inherently different and special about pulling in a radio signal from some faraway place and *knowing* that that voice or that tune has flown through air across thousands of miles to reach us.

Anyone who has tuned the AM dial on a long nighttime drive has likely experienced a little taste of this: Is that really Chicago I'm hearing? Did that announcer say Salt Lake City? Even if we regularly watch Chicago's WGN-TV on cable or can speed-dial a friend in Utah, there is an extra quality, a certain exotic and mysterious "something" about tuning in a distant radio signal. Maybe the experience appeals to something primal in us, perhaps our explorer or hunter selves; maybe the "I wonder where this road goes" side of our psyches gets piqued.

Over the years, many of the radio enthusiasts I have known have used a particular word to describe the experience: magic. In this chapter I will relay to you the thoughts, opinions—and although we may be on somewhat squishy ground trying to encapsulate such—the feelings of some who have made a pastime of listening to shortwave radio.

In the preface I touched on the difference between what can be called the “program listener”—one who tunes in to a specific station to hear either something specific or the overall output of that station—and the hobbyist more concerned with logging a particular station or country—in radio parlance, a “DXer”. My experience has been that while shortwave enthusiasts will sometimes self-identify as being one or the other, most maintain interests in both camps.

Once introduced to the medium, the neophyte shortwave listener often spends his or her time logging new stations and countries and submitting reception reports to the broadcasters. Traditionally stations have used these reception reports to determine the effectiveness of their transmissions and rewarded the listener with a verification card that certified the accuracy of the report. These verification cards—“QSLs”<sup>26</sup>—give tangible proof that the listener received what he or she thought and become fun souvenirs and keepsakes of hearing a given station.

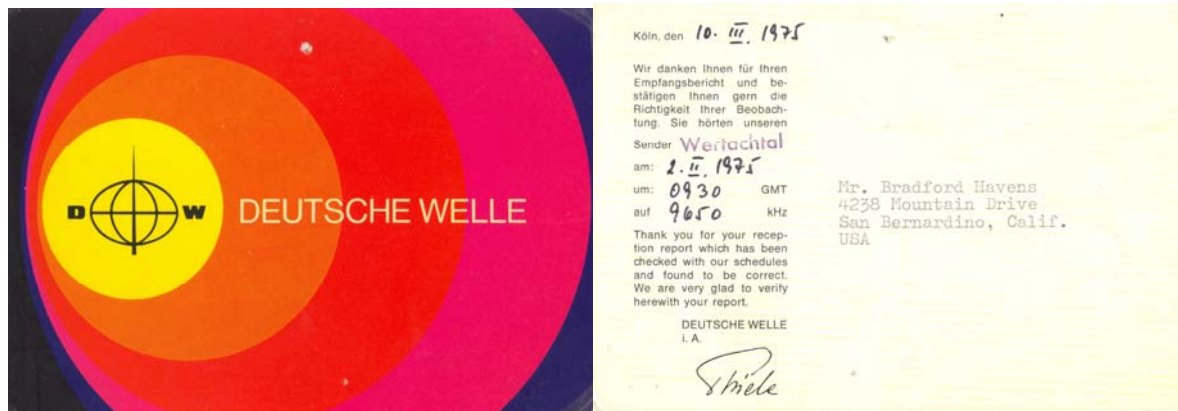
Just as stamp collecting is an activity separate from that which precipitated it (sending letters), collecting QSL cards can be a sub-hobby of listening to shortwave radio; in this case the program content may mean less to the listener than “snagging a new one” and getting the all-important QSL to prove the achievement. (*See Figure 7* for examples of QSL cards).

Over the years, a somewhat standardized method of sending reception reports in to stations has evolved. The “SINPO” code allows the listener to rate reception on a five-point scale in each of five categories: *Signal*, *Interference*, *Noise*, *Propagation*, and *Overall quality*.

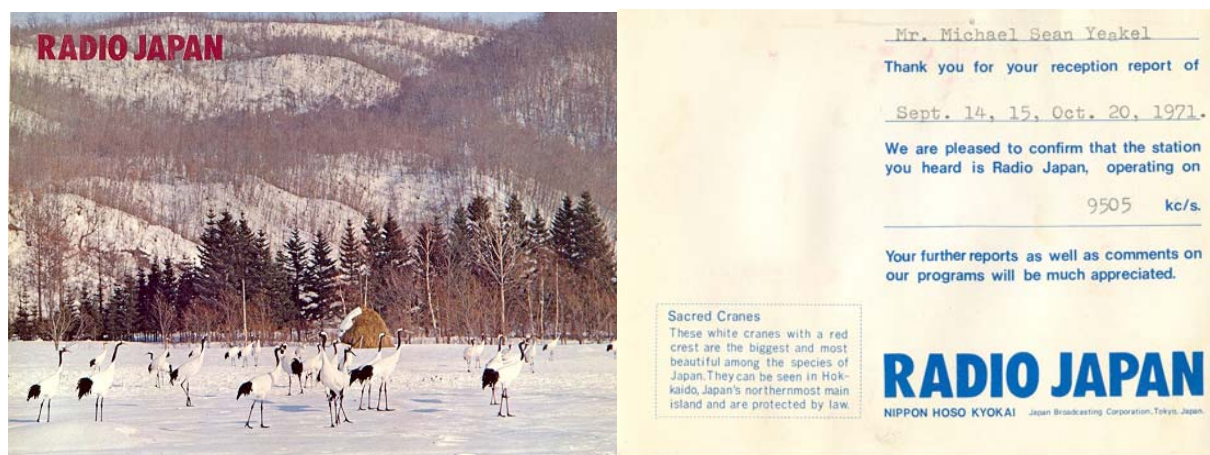
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<sup>26</sup> QSL is one of dozens of radio “Q” signals, abbreviations originally used by shipboard operators and adopted by radio hams. Q-signals can be either a statement or a query depending upon the punctuation used, and can represent some fairly elaborate messages. Thus, “QRM” is understood to mean, “I am being interfered with by a manmade source” (i.e., from another station), while “QRM?” (with a question mark) is understood to mean, “Am I being interfered with by a manmade source?” Q-signals, along with other procedural abbreviations, can dramatically truncate communications, particularly when hand-sent Morse code is employed. Although Morse is no longer used commercially, it remains popular with ham operators. Many of the common Q-signals have fallen into the jargon of the various communications hobbies to the point that they are even spoken aloud. The original meaning of “QSL” was “I can acknowledge receipt”, a term of particular use when relaying radiograms. Early ham operators acknowledged contact with other stations or reception reports from listeners through a post-card bearing their call letters and details of the contact: time, date, frequency, and mode of operation; this practice continues today by both hams and shortwave broadcasters, and these QSL cards become hard-copy proof of achievement required by some awards programs.

**Figure 7**  
Examples of QSL Cards (Front and Back)



**QSL Card from Germany's Deutsche Welle**



**Radio Japan QSL**



**Radio New Zealand QSL**

Thus, a SINPO rating of 55555 would mean perfect reception, but a rating of 24533 would indicate a weak signal that has little manmade interference, no noise (static), moderate propagation (fading), and a fair overall quality of reception (Wiegmann 1). Of course, this rating system is entirely subjective.

Simply submitting a SINPO rating is not enough to warrant a QSL card; additional information must be included in the reception report, specifically time, date, and frequency of reception, along with details of the program heard, and perhaps a brief note of the equipment used. The SINPO rating provides technical information about the quality of reception while the program details prove that reception actually took place.

Generally, such a report would include 15 to 30 minutes of program information with enough detail to show that the listener had, indeed, been tuned into a particular station. An example of a listener's reception report can be seen in *Figure 8*.

Are such reception reports useful to the broadcaster? Computer modeling of ionospheric propagation might provide a more accurate picture of how well a signal *should* be received in a given area, but the reception report can give at least some feedback to the station and can be a bellwether of its effectiveness. Dr. Adrian Peterson knows shortwave from both sides of the microphone—as a longtime listener, and as a broadcaster with Adventist World Radio (AWR):

At the time when I did my Ph. D. in international radio broadcasting, I analyzed the mail response to Radio Australia. At that time, I discovered that the station mail (DX) as compared to the total mail response ranged between 10% to 20%. The DX mail response to AWR ranges between 5% to 10% of the total mail response. This indicates to us that our shortwave programming is making an effective impact in the lives of our listeners (E-mail interview).

<p><i>Please accept this reception report of Radio Eastasia</i>  <i>If you find the details correct, I would very much like to receive a QSL card.</i></p>
<p>Date: 13 March 1999 Time: 0330-0400 UTC    Frequency: 9915 kHz</p>
<p><u>S</u>ignal: Excellent (5)   <u>I</u>nterference: Slight (4)   <u>N</u>oise: Slight (4)  <u>P</u>ropagation: Slight Fade (4)   <u>O</u>verall Quality: Generally Good (4).</p>
<p>Program Details:</p> <p>0330 UTC: Sign on, Eastasian national anthem played on musical saw.</p> <p>0331:    Male announcer: "This is Radio Eastasia, the Overseas Voice of Eastasia."  Gong sound.  Female announcer: "Here is the latest news from the World Desk of Radio Eastasia".  News items included information about increased output of tractor parts from Eastasian factories, story about champion bird-caller, announcement of publication of new five-year plan, and jai-alai scores.</p> <p>0335:    Gong sound.  Male announcer: "You are tuned to Radio Eastasia."  Male announcer 2: "And now it is time for Eastasia Cavalcade."  Pan flute theme music  Female announcer: "Today we will visit a sodium harvest...."  Talk about minerals, interviews with miners.</p> <p>0345:    Gong sound  Theme music played on zither and theremin  Male announcer: "Hello, Radio Chums! You are tuned to the Overseas Voice of Eastasia operating from the free territory of Eastasia. It is time now for the Happy, Happy Mail-sack Program! Here is your host, Praestigna Zloty!"</p> <p>Female host (Praestigna Zloty): "Welcome! Welcome! Welcome to the Happy, Happy Mail-sack Program! Our first letter is from Winston Smith in the U.K. He writes: 'Is it true that Eastasia produces more sugar beets on collective farms than any other nation?' Yes, Winston, that is very true and Eastasian sugar beets are very, very sweet!"</p>

**Figure 8**  
*Excerpt from a typical shortwave listener's reception report.*

Note the use of UTC in the time listing. Almost all international communicators—shortwave stations, ham operators, military, aviation, etc.—make use of 24-hour Coordinated Universal Time (UTC), sometimes referred to as Greenwich Mean Time (GMT), or "Zulu" time. Use of a single clock prevents the confusion inherent with translating one person's local time to another's.

Radio Miami International's Jeff White also sees value from reception reports and notes that there can't always be a clear separation between the program listener and the DXer:

My own experience is that you can't draw a hard line between the two groups. Many of the people who send us reception reports (i.e. the "technical" listeners) also make comments which indicate to us that they are serious listeners to the content as well. And our experience is that even those who may be only interested in receiving a QSL card will become regular listeners in the future. So we don't really make any distinction between the two groups. Of course a distinction might be made if a particular program is in Spanish targeted to Cuba, and we receive a reception report from someone in English who happened to hear the program in Europe and obviously didn't understand any of it. But we still value reception reports from listeners as valuable technical information for us, and we verify all reception reports with WRMI QSL cards (E-mail interview).

Veteran Broadcaster Ian McFarland was for many years host of a very popular program on Radio Canada International aimed at both the DX enthusiast and the program listener:

I was fortunate to have had a very close relationship with the hobby community through my SWL Digest program, and the Radio Canada SW Club program before that. Over the years I met many hundreds of listeners and I know that a lot of my listeners were both program listeners and DXers who enjoyed digging out the weak signals and verifying the station with a QSL. In the SWL Digest program I was aiming at both types of listeners. The main reason that I changed the name of the program from "The DX Digest" to "The SWL Digest" was to avoid the perception of listeners that I was aiming just at the DXing and hobbyist community. I think that when stations started getting into financial difficulties with reduced budgets they often cancelled their DX programs to save money on the premise that they should be focusing on a general audience instead of catering to just one segment of it (E-mail interview).

McFarland successfully bridged two listener communities by creating a program that appealed to both the DX enthusiast and the program listener. Having spent most of my adult life in broadcasting and media production, I can imagine that having an end-user interested only having *heard* your work and not especially in having *listened* to it can be frustrating.



**Figure 9**  
*Shortwave Broadcasters Allen Graham and Ian McFarland.*

Veteran Canadian shortwave broadcaster Ian McFarland (right) interviews Allen Graham of HCJB at the 2007 Winter SWL Festival in Kulpville, PA, March of 2007. McFarland was collecting audio for a planned radio documentary about shortwave listening.

Photo by Daniel D. Brown.

Bob Zanotti, co-host of “The Two Bobs” show on the now-defunct Swiss Radio

International (SRI) has little affection for the inveterate card-chasers; he sought to convert them to more active listeners:

Yes, SRI did make a distinction between "serious" listeners and DXers. In fact, the classic QSL-seeking "DXer" was despised, and to try to correct that state of affairs, "The Two Bobs" started a campaign to turn DXers into "listeners". As part of this campaign, we were the first to use the term "program content", in explaining what our management expected listeners to be interested in. The campaign was largely successful, and spread to other stations, especially among the "Group of Six" (Australia, Canada, Japan, Netherlands, Sweden, Switzerland) where it was apparently discussed and mutually promoted. I, personally, would list irritation with "DXing nuts", as they were known, as a contributing factor to the "apparent" decline in shortwave effectiveness in the eyes of many station controllers and funders (E-mail interview).

Although Zanotti’s comments may at first seem harsh, funding of non-commercial shortwave stations has long been a challenging proposition. How could it not be difficult to convince a



Parliament or Congress that you need millions to broadcast programs that are *heard* but not actually *listened to*?

Paul Ladd of World Christian Broadcasting, operators of shortwave station KNLS, says he looks forward to receiving listener mail *including* reception reports:

We know we're effective when people write in and say, "I heard such-and-such a program." A lot of Christian stations will say, "80-gazillion people accepted Christ because of what we said"; we don't know. We know we have a lot of listeners because we get reception reports, and writing those—even e-mailing takes some effort. If they have written in more than once, I try to give everybody a personal response. If they're kind enough to write in, I think we should be kind enough to respond to them. I get excited every time the mail comes (Personal interview).

Of course, reception reports and QSL cards are not the entire shortwave experience—not even a *sine qua non*—and budgeting issues generally have none of the “magic” to which I alluded earlier. Trying to adequately encapsulate the intangible qualities of shortwave listening can be about as easy as describing what a banana tastes like; nonetheless, I have collected the thoughts, opinions, and musings of a number of shortwave listeners—some casual, some hardcore enthusiasts—to try and gain some insights into the nature of the experience. And, while you might expect shortwave listeners to be employed almost exclusively in technical professions or to be stereotypical “nerds”, my experience has been that shortwave listeners are generally well-educated, have other interests, and are engaged in a broad spectrum of occupations. I've met college professors, doctors, law enforcement officers, engineers, and government workers who called themselves shortwave listeners. Although I don't even pretend to have hard data to support my hypothesis, my general sense is that while shortwave listening may tend to attract those with a technical bent, it is truly an “all walks of life” avocation.



March 8 through 10, 2007 I had the good fortune to attend the 20<sup>th</sup> annual “Winter SWL Festival” in Kulpville, Pennsylvania outside Philadelphia. This gathering drew about 200 shortwave listeners, scanner enthusiasts and DXers, as well as a handful of international broadcasters. At that event I asked a random sampling of attendees to describe what makes listening to shortwave different from listening to other sources, especially so-called “new media” like Internet streaming and podcasts. Again, I make no claims to any data or other scientific value to be gained from these interviews and from other responses I have gathered via e-mail before and since the SWL Festival.

Nolan Stephany is a public radio and TV engineering supervisor from Rochester, New York. At 39, he was among the relatively younger faces at the SWL Festival, but having listened for 33 of those years, he offers an old hand’s perspective:

I think when I was younger I was much more into the DX side of it...trying to hear as many stations or as many different countries as I could and I think in the process got much more involved in program listening. And now, mostly what I do—even though I still love DXing and follow what’s news in it—I consider myself more of a program listener; I’m far more interested in the content than just hearing the station for the sake of it (Personal interview).

A fan of African and Middle Eastern music, Stephany said he appreciates the diversity that both shortwave and Internet streaming offer, particularly in contrast to U.S. commercial radio. But, he notes that the Internet’s “predictability” and on-demand nature may leave something out of the listening experience, particularly in contrast to shortwave listening:

There’s still something missing in the Internet experience; I’m still trying to put my finger on what it is. Maybe it’s knowing that you’re tuning in something that’s coming in directly from one of these countries from which you’re hearing the broadcast rather than something that’s being routed through a series of computers; I really don’t know and I wish I could put my finger on it (Personal interview).

For many listeners the capability of shortwave to deliver the mysterious and exotic holds a certain appeal. Radio journalist Allan Loudell of Wilmington, Delaware's WDEL remembered the special quality of one station he used to hear in years past: "Radio Tashkent's English language broadcasts—there was a certain (what's the word I want?) very *Oriental*, very out-of-worldliness character for a North American listener, I think, listening to broadcasts from Soviet inner Asia" (Personal interview). Loudell also cites the portability of contemporary receivers and the intimacy of the medium as elements of shortwave's cachet:

You can be anywhere on a trip and get the world news in a timely fashion. It doesn't require having any [Internet] connection; it doesn't require any great effort. You put a portable radio on, it's there; I love that utility. Radio is a more intimate medium and the best shortwave stations still give you a kind of personality that you can't get from satellites or Internet offerings. Internet offerings are typically by-demand podcasts—you don't get so much of the interaction...and I think we would be poorer if we were to lose all that (Personal interview).

Writer and author Thomas J. "Skip" Arey of Beverly, New Jersey says he has been listening for more than 40 years and counts himself as both a DX enthusiast and a program listener. Arey is also a ham radio operator and notes that the technical aspects of pulling in distant signals hold a special appeal for him:

I'm a radio hobbyist first and a content listener second. I'm interested in the technology. I'm interested in how a radio signal travels through the air and gets to me, how I can build equipment and make equipment work to get that signal better (Personal interview).

Arey offers an interesting view of how new media and some of the cutbacks by major broadcasters can have a *positive* effect on his radio hobby activities:

In the modern world there's always going to be better ways to provide the content. I can get BBC a heck of a lot easier on the Internet or on satellite than I can on shortwave these days because they're not pointing their antennas in my direction and they're not

broadcasting to me. However, that makes the challenge of receiving BBC over shortwave, for me as a radio hobbyist first, that much more fun because if I get 'em, I've done something clever—either with my antenna array, or the filters on my radio, or praying to the right propagation god on the right day. That's my thinking of it. The thing that has kept me in the hobby is not the content—although the content is wonderful—what has kept me in the hobby is the challenge of playing with radio to get radio to do what radio always was meant to do: getting a signal from one place to another through the air (Personal interview).

David Goren is an acclaimed radio producer who lives in Brooklyn, New York. For more than a decade he has been post-production manager for public radio's *Jazz from Lincoln Center*. He also created a shortwave-themed feature for the *Lost and Found Sound* series heard on National Public Radio. Like other shortwave enthusiasts, Goren also sees himself as both a program listener and a DXer, but in a somewhat less prosaic fashion than Arey's: "I've always said that I like to DX program formats. I'm looking for that weird intersection of amazing programming and a faraway signal...it's like a radio 'moment' that I'm looking for" (Personal interview). Goren says he listens to a lot of Internet-based material and enjoys it, but he notes that the experience of listening to the net is quite different from listening to shortwave. He implies a (literal and figurative) digital versus analog contrast between the two:

I think for me the difference has to do with the sound...the sensation [of listening to the net] is more you're pulling down a feed...like you're plugging into a switchboard: "Alright, I'm plugging in WWFM from Palau" (which I like a lot), or I'm listening to FIP in France, and really I enjoy the programming. Shortwave in particular got me excited about international broadcasting and programming; when I listen to shortwave it's like listening—it's like the vinyl versus CD argument—you know, there's a sound quality to it. There's also...I guess on the Internet, it's hard to stumble across anything you've never heard before. There's a list and you can say, "Oh, I guess I'll try this or I'll try that," which is fun, and you wait and you wait for it to hook up, but radio to me is almost like it's an instrument—a musical instrument—and you're tuning, and you're playing it and it's playing you in some cases (Personal interview).

In addition to being a longtime shortwave listener, Janice Laws is co-host of the *International Radio Report* on CKUT in Montreal, Quebec. When not engaged in her radio-related pursuits, Laws is employed by a government agency in Canada. Laws also identifies herself as a member of both the DXer and program listener camps. When contrasting Internet listening with shortwave, she also touts the latter's portability and simplicity:

Shortwave radios are portable. You can listen to them in bed...you can listen to them anywhere. To listen to Internet you need broadband...you need a computer, there's a lot more apparatus involved in listening to stations over the Internet. Where I am in Montreal I've got broadband cable, but I really rarely listen to radio stations on the Internet. It's really inconvenient for me; you have to boot up the computer, find the frequency, listen to it and then it's like, "OK"—I can't just tune a knob and tune away, I've got to enter another website and, "Is the stream busy?", etc. I understand the technology is there, but I'm not necessarily going to get a broadcast that I know is broadcasting for everybody from "x"-time to "x"-time. I just prefer shortwave. It's free, it's there, it's portable, it's everywhere (Personal interview).

George Zeller is an economic research analyst who lives in Cleveland, Ohio. Like many other shortwave enthusiasts, he got his start at an early age:

I've been listening to shortwave since 1963...my parents—I was a kid then—bought a Blaupunkt German radio; it was multi-band, but it had an FM band on it, and the little town I was living in near Youngstown got an FM station for the first time so they had to buy a radio to get the local FM station. I discovered the shortwave bands on it and started listening to shortwave (Personal interview).

Zeller has long enjoyed the DX aspects of shortwave listening, but he is also considered an expert on clandestine and pirate radio and writes a monthly column about those topics for *Monitoring Times* magazine. But, Zeller's listening sometimes takes on a very practical aspect:



**Figure 10**  
*Bob Dunn and George Zeller*

The author (left) interviews economic research analyst, columnist, and longtime shortwave enthusiast George Zeller at the 2007 Winter SWL Festival in Kulpsville, PA

Photo by Daniel D. Brown

I have a shortwave radio in my car; it gets the local FM and the local AM, but it also picks up Radio Australia. I work in economic analysis and...when I'm driving from my house to the Park and Ride lot where the train station is, I listen to Radio Australia. It has the business news right when I'm driving to work, so I get the Asian market reports even before I get on my train (Personal interview).

Dan Brown is another broadcaster who is also an enthusiastic shortwave listener. He started his interest as a New Orleans schoolboy, now is an engineer for the CBS-owned television station in Boston. Shortwave for Brown is, among other things, a source of varied news coverage and disparate opinions:

Every country's media shows their version of life and "reality". When the Cold War was in its prime, I heard of Russia's successes in power generation, culture and education, among other ideas. The VOA promoted American culture, and described what advantages Democracy provides. Much of this can be called "propaganda", but I keep that in mind when I am listening and often get solid information anyway. I still listen to shortwave as I get to hear the "other side of the story" from another country. When the second Gulf war was about to happen, I listened to shortwave stations from other countries that strongly disapproved of the United States' goals (like Cuba and Vatican Radio). I also heard the British approval on the BBC. I learned from Radio Havana about

the Guantanamo prisoner predicament before the US media decided to cover it. In the days before the Internet, I often heard of world events one or two days before the events were covered in America. In American media, I often do not hear the other side of the argument. Shortwave does not require a subscription fee, nor is it tracked, as the Internet is (E-mail interview).

Brown also notes that he appreciates the sometimes unpredictable nature of shortwave:

Tuning around shortwave also has an interesting form of chance to it. Propagation, listening times and transmitting schedules often prevent me from hearing what I expect, but also can provide a gem in my falling across some program from a country that I would not normally listen to (E-mail interview).



**Figure 11** *Dan Brown*

Broadcast engineer, ham operator and avid shortwave listener Dan Brown operates some of his antique radio gear.

Photo by Paul Ziobro, used by permission.

Dan Brown's brother Seymour lives in New Orleans where he works in information technology for a major local hospital. Although a few years older than Dan, Seymour's passion for radio developed somewhat later; for him shortwave offers a particular aesthetic:

Our dad had a Zenith Trans-Oceanic radio. As kids, we'd go through the bands, scanning for interesting stuff in English, or for music. Dan really got the radio bug from it, I think; me, a bit less so. I like the AM and sideband crackle and fading. It's so much more spiritual in many ways. One must use a little skill to pull in and keep a station, and the signal is distorted in interesting ways. It's almost like travel[ing] through time. One must be aware of worldwide and even solar system weather [to track propagation]. It puts things into a perspective that XM and Sirius just miss (E-mail interview).

Charlie Otnott lives on the Mississippi Gulf Coast and works with a federal law enforcement agency. His exposure to shortwave radio at a young age had a profound influence on his life's path:

My radio hobby started in my teen years. My father bought a multi-band radio from Sears so he could listen to the shortwave bands. The radio was a "portable" unit that ran on dry cell batteries or 110 volts; it weighed about ten pounds and covered AM, several shortwave bands, and the FM broadcast band. The radio had provision for an external long wire antenna and an earphone. I would hook up the earphone for private listening before going to bed. The effects of the ionosphere's propagation fading on the broadcast station's signals would sometimes lull me into slumber. My dreams were filled with imaginary visits to far away lands as the broadcast announcer described events, people, and places to the world. Did shortwave influence my life? Well, after my initial introduction to radio as a young lad, I spent 20 years in the U.S. Coast Guard as a radioman. I retired at the rank of Chief Radioman. My "other" hobby is amateur radio. I hold the highest class of license for my amateur radio hobby. You could say that shortwave broadcasting had a *small* influence in my life (E-mail interview).

Like Dan Brown, Otnott has enjoyed listening to and comparing the programs offered by different stations and countries, especially as they pertained to the ideologies involved:

During the waning years of the Cold War, I would chuckle to myself when Radio Moscow, the Voice of America, and others would fire off each respective government's rhetoric. The art of spinning words to suit the target audience or country was very amusing to listen to. But I also enjoyed the melodies of HCJB the powerhouse from Quito, Ecuador, and hearing the familiar interval signals that told me what station was coming on the air: Waltzing Matilda, Yankee Doodle, and other tunes would announce to the world that a station was signing on. While deployed with the U.S. Coast Guard, I would keep one receiver tuned to the New Orleans shortwave station WRNO Worldwide to keep tabs on events from my hometown. I don't remember who originally said this quote, but "radio is theater of the mind" (E-mail interview).

Terry Raymond works on the headquarters staff of a national search-and-rescue and aerospace education agency in Montgomery, Alabama. He notes that shortwave listening has expanded his worldview in some novel ways:

There is something special waking up early on January 6th and hearing Christmas music coming from somewhere else in the world where they are celebrating Christmas in their slightly different tradition. Or listening to Australia welcoming in the New Year in the very early morning hours of New Year's Eve here. It's somewhat humbling for an American to listen to a world where *America* is just another country, and it really *is* 5:00 o'clock somewhere! (E-mail interview).

Mike Saladino grew up in Metairie, Louisiana and currently lives in LaPlace, Louisiana. He works as a communications engineer for a gas pipeline company, is a collector of antique radios, and is an ardent general aviation pilot. Like almost all of the shortwave enthusiasts I interviewed, he began listening as a youngster. And, like many whom I interviewed, his assessment of shortwave is rather philosophical. I will give him this chapter's final words:

What a way to open up your mind! The warm glow of the radio tubes as you tune around looking for faraway places to appear magically on the radio dial. Shortwave listening gave me an insight into other cultures firsthand not filtered by editors. Your imagination can run wild making that faraway place look like what ever you want. Much as flying gives you a unique vantage point from which to view your world and your relationship to it; shortwave radio gives you a unique vantage point from which to view your culture and its relationship to mankind (E-mail interview).



## Chapter 8

### *Down Goes a Wall, Up Goes a Web*

On July 1, 2001 one of the mostly widely heard, well-known, and respected international broadcasters did something remarkable: the BBC World Service turned off its English shortwave transmissions to North America, Australia, New Zealand and the islands of the Pacific. It was not the first shortwave station to sign off, nor will it be the last, but the shutdown was a landmark event in international broadcasting (Anderson 8).

As I discussed in Chapter 5, the BBC World Service has traditionally been one of the “go to” stations in times of crisis. For a period of time following the terrorist attacks of September 11, 2001 the BBC resumed some of its North American shortwave service, but eventually continued with its shutdown plans. For years I could pick up the World Service at almost any time of the day on at least one of their many frequencies; today I can easily receive but a single hour of BBC shortwave and that from a transmission aimed at Central and South America.

In April of 2004, the popular Swiss Radio International ceased broadcasts in English; then in October of the same year stopped shortwave operations in all languages (Zanotti E-mail interview).

One of the easiest to hear stations in North America, the powerhouse evangelical outlet HCJB (see Chapter 6) sharply reduced English language broadcasts in May of 2003, then dropped all English transmissions three years later (Graham, *Faith & Shortwave*).

2003 also marked the end of English broadcasts beamed from Germany to North America, Australia and New Zealand as part of a “facelift” of Deutsche Welle (*Deutsche Welle Drops Shortwave*). Note that Deutsche Welle did not stop English programs altogether as had HCJB; the station simply curtailed its broadcasts to the “developed world” as had the BBC.

And, at the Winter SWL Festival I heard discussions that Radio Japan, the overseas service of NHK was looking to cut back its shortwave broadcasts. A letter from NHK reportedly confirms that Japanese language broadcasts to Europe and North America, Spanish and French broadcasts to Europe, and all Italian, Swedish, German and Malaysian language broadcasts will cease in October of 2007 (cited in *Monitoring Times* weblog).

Meanwhile, the Voice of America has been cutting back as well and may even drop all of its English language programs to the rest of the world (J. Brown, *NewsHour*). Needless to say, this plan is not without controversy (Carlson 1).

So, what is afoot with so many major international broadcasters dropping or reducing their shortwave transmissions, particularly in English? Has shortwave fallen out of favor with listeners after 80 years?

Of course, there is no one answer and as many opinions as there are players in this unfolding story. But, to begin looking at this broadcasting sea change, let us review the BBC's press release announcing their North American cutbacks:

From 1 July 2001, the World Service will be focusing its delivery in English to North America, Australia, New Zealand, and the Pacific Islands on its numerous re-broadcasting partnerships on FM and MW, together with 24 hour online audio output. This decision has been made in response to the real revolution in the way people in developed markets access their media. We know that our listeners have migrated away from shortwave and are now accessing us on FM, via the Internet and also in some areas on satellite, cable and on mobile devices. In the U.S. twice as many people listen to us on FM as on shortwave and one and a half million users access the BBC online each month. To meet the continuing demand for improvements in audibility from listeners around the world the BBC must explore the newest technologies. The money saved by closing shortwave transmissions to North America will go towards funding this investment in the future. You can hear the World Service online. The programmes are of good quality and you can listen to programmes on demand as well as streamed live. The site also gives additional background

information to programmes, as well as our different language programmes. You can also listen to us through our many re-broadcasting partnerships on FM and MW. The BBC is still deeply committed to shortwave. We are currently investing large amounts of money on upgrading the shortwave facilities covering the Middle East, the Gulf, and Asia as in these areas the majority of our audiences still use shortwave as a primary way of accessing our programmes. You should still be able to hear your favorite programmes, but if you are having problems do not hesitate to call our special information line for help on how to hear us: +44 207 557 1270. We are committed at the World Service to harnessing new distribution partnerships to provide our listeners with the programmes they want, when they want. The changes to our transmission services reflect our commitment to our role in a rapidly changing modern media world (quoted in Anderson 290-91).

The BBC release seems to suggest that listeners in developed markets don't listen to shortwave much anymore, preferring local re-broadcasts and/or Internet streaming to the seemingly antiquated shortwave. As one might expect there is a bit of "apples and oranges" comparison going on here. First, to my knowledge there are no AM (MW) or FM "re-broadcasting partners" in the United States carrying the BBC World Service full-time; from my work in public radio I know that some stations carry some BBC newscasts and programs, and that some even carry long blocks of World Service programming (primarily after midnight), but that one cannot simply tune into a local station to hear the BBC. While the total number of listeners who hear the occasional BBC program relayed over their local public radio outlets is no doubt larger than those who listen via shortwave, they are two different audiences. Graham Mytton former Head of Audience Research for the BBC contends that those who listen to the World Service via shortwave represent a "more valuable" audience than those who pick up pieces of BBC programming on local radio (cited in Anderson 295).

Second, while the BBC may have picked up new listeners with the start of Internet streaming, does this in fact represent listeners "migrating away from shortwave"? Did the BBC

act on solid data? Did they compare the average time spent listening to the shortwave with that spent listening to streamed audio?

Data aside for the moment, there are some crucial contrasts between the radio and Internet streaming (beyond the “experiential” differences cited by some listeners in Chapter 7), not the least of which is that the burden of paying for program delivery is largely assumed by the listener in the case of Internet delivery, and the broadcaster in the case of radio. While a broadcaster may claim significant costs are involved with purchasing needed Internet bandwidth, it is also true that the listener must pay an Internet Service Provider (ISP) for access. Further, if the listener wants reliable, high quality streaming, he or she had better be prepared to pay for higher-priced broadband access.

One could argue that needing high-speed Internet access (not to mention a computer) to be able to listen to audio streaming versus simply turning on and listening to the radio is a “Digital Divide”<sup>27</sup> issue, a technological and economic separator that can lead to information “haves” and “have-nots”. And, although high-speed Internet penetration in the United States has finally surpassed 50 percent, a Pew survey shows that the rate of broadband adoption has slowed dramatically over the past few years (Reardon 1). Will we reach a point where only those with the economic and technical wherewithal can listen to international broadcasting?

We have become familiar with the “pay-for-play” model of cable and satellite television over the last two decades; with the advent of XM and Sirius satellite radio<sup>28</sup>, subscription radio is now a reality as well. Significantly for the international radio listener, each of the satellite providers offers—for a monthly fee, of course—24 hour access to the BBC World Service.

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<sup>27</sup> “Digital Divide” refers to the gap between those who benefit from digital technology and those who do not (*Digital Divide: What is It and Why Does It Matter?*).

<sup>28</sup> The two satellite radio providers have announced plans to merge. At this writing they are awaiting approval from federal regulators (*XM, Sirius File Merger Proposal*).

Sirius also offers CBC Radio One and another Canadian channel, as well as World Radio Network, a channel that carries a wide range of national and international broadcasters for a half-hour or an hour at a time<sup>29</sup>.

There *are* international radio broadcasters sending programs over free satellites (BBC is not one of them); using my Ku-band FTA receiver I am able to get English, Spanish, and Dutch streams from Radio Netherlands, and a WRN channel over the Galaxy 25 (formerly IA-5) satellite. By moving my dish antenna to Canadian satellite Nimiq 2 I can receive some domestic CBC channels (although not Radio Canada International) and some Deutsche Welle channels as well.

In fact, there are dozens upon dozens of foreign radio channels available on FTA satellite. Most of these, however, are not in English and are generally rebroadcasts of local or national ethnic stations and not programming of the variety normally associated with the international stations. The radio programs available from FTA receivers consist mostly of ethnic music and some religious broadcasts; there is very little of the sort of news, analysis, cultural, and magazine shows one traditionally has heard from shortwave. While there are many “international” channels available on the free satellites, they are for the most part simply the popular music outlets of various countries, particularly in the Middle East.

When I first installed my FTA system, I did experience some of the “let’s see what’s out there” kind of hunting-fun associated with shortwave listening, but this experience was relatively short-lived. Fairly quickly I *knew* what was “out there”.

There are some inherent difficulties with using an FTA receiver for radio reception, the least onerous of which is that it is a system designed for television viewing; radio comes through

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<sup>29</sup> World Radio Network acts as a clearinghouse for a variety of international stations and offers Internet streaming and free (FTA) satellite transmissions, as well as program distribution to re-broadcasting partners in much the same way as the BBC (*About WRN*).

the TV speakers or can be routed to a stereo receiver or amplifier. While the latter setup can provide amazingly good sound (depending on the quality of the originating station), one must still decide whether to watch TV or listen to the radio. If the satellite receiver is located in the living room or den (as is usually the case), radio listening often is secondary to family TV viewing.



**Figure 12**

*The author's 90 cm Ku-band FTA satellite dish*

This dish is on a motorized mount which affords viewing of a large number of free, unscrambled channels, and the reception of many ethnic radio stations.

Photo by the author

The biggest problem of using FTA to receive foreign broadcasts is that there is a fair amount of non-portable equipment involved. Installation of the Ku-band dish antenna—while much easier than the behemoth C-band dishes of years past—requires a large amount of patience and a degree of technical skill. Even with more than 30 years ham radio and professional broadcast engineering experience, it still took me several weeks of adjustments to get my system to perform correctly. A clear view of the sky and a 30-inch or larger dish are needed to reliably pull in stations, and if more than one satellite is to be viewed or listened to, a precise motor system must be installed. Needless to say, one does not readily haul the FTA system to the beach or on a camping trip!



**Figure 13** Screen shot of Afghan news program received via FTA satellite receiver

Television and radio programs in dozens of languages are available from over 200 free satellite channels.

Photo by the author

While subscription radio services like XM and Sirius certainly offer greater reception mobility than FTA and may even have a degree of portability in some cases, direct satellite broadcasting still has limits. Former Swiss Radio International broadcaster Bob Zanotti elaborates:

Mobility is another striking deficiency in present satellite sound broadcasting. Current technology does not permit us to carry a satellite receiver in our pocket and take it along on our travels. Furthermore, reception indoors is virtually impossible. Cable distribution of international programs is often cited as a promising alternative to direct home satellite reception, but here too, cable installations are fixed; they cannot be used away from the home setting (*Future of Shortwave* 1).

It would appear that satellite radio, like its Internet counterpart, still has a tether. As we saw in Chapter 7, many listeners value the portability that modern shortwave receivers afford. Early tube-type radios required AC power and hundred-foot wire antennas, making them somewhat analogous to contemporary Internet or satellite setups; modern shortwave radios are small, sensitive, and eminently portable.



**Figure 14**  
*Sangean ATS 505 portable shortwave receiver*

Shown with a coffee mug for size comparison, this receiver is actually *larger* than some other contemporary models. The ATS 505 tunes all shortwave bands as well as AM and FM bands, and is capable of receiving Morse code and single-sideband (SSB) transmissions.

Photo by the author

But, although matters of portability, practicality and price may speak to shortwave's continued popularity with its adherents, they do not address the question of whether or not broadcasters like the BBC are operating out of foresight or folly when they drop shortwave services.

Graham Mytton offered some revealing statistics at an international broadcasting symposium in the fall of 2006. Although he notes that 99 percent of North American households have radios, only ten percent have shortwave, and ultimately only *one* percent of North American households listen weekly to shortwave (cited by Graham, *Faith & Shortwave*). If Mytton's figures are correct, this would indicate only about 30,000 American shortwave listeners in a given week! Can this be so? Even the BBC claimed 300,000 American listeners to the World Service, but of course they did not reveal over what period this group listened (Anderson 294).

Since I do not have access to Mytton's methodologies, I can only take his observations at face value. In spite of his statistics, though, Mytton is on record as *opposing* cuts made by the BBC:



This decision of the BBC is very regrettable. It means that for the first time in almost 70 years of international broadcasting the BBC is excluding whole areas of the world on direct broadcasts.... If I had still been at the BBC I would have opposed this move vehemently. I believe it is misguided and wrong (*Comments posted to SaveBBC.org*).

Clearly this is a contentious issue when a recognized expert like Mytton can offer both statistics that seem to support the cutbacks of shortwave service to North America *and* impassioned opinions against such a move.

Mytton is not the only expert so conflicted. Kim Andrew Elliott is a respected communications professor, writer, and audience research analyst for the Voice of America. In his role as researcher, Dr. Elliott offers a somewhat prosaic assessment of shortwave cutbacks:

Shortwave transmission is expensive and no longer seems to yield the number of listeners than it did before. Before the 1990s, shortwave was the best way (often the only way) to get content over long distances and across national boundaries. Now satellites and, even more cheaply, the internet can do this. The satellites and the internet allow text and video as well as audio. The internet allows interactivity and on-demand access at any convenient time. I think that a move from shortwave to the internet will be accompanied by a move from audio to text, i.e. the text of web pages. Generally, it is faster and more convenient to read news and information than to listen to it (E-mail interview).

On the other hand, Elliott has been critical of the World Service cutbacks saying that the BBC was “forfeiting its unique advantage in a media-saturated world [by] eliminating the convenience of listening on a portable shortwave radio” (cited by Anderson 294).

Elliott is himself a long-time listener who writes witty and pithy commentary about international broadcasting and public diplomacy issues on his weblog [KimAndrewElliot.com](http://KimAndrewElliot.com); the website also offers transcripts of his *Communications World* program formerly heard on the Voice of America. One such transcript—of the May 12, 2001 program—offers some eloquent

commentary from Elliott regarding not only the BBC's cutbacks, but the essential nature of shortwave listening:

As one who has listened to BBC World Service for thirty-six years, that is, since before it was called World Service, I feel compelled and qualified to comment.

It seems FM rebroadcasting satisfies the needs of BBC more than it satisfies the needs of the BBC audience in the United States. It brings the larger audience numbers that look good in the annual report. Public radio listeners are likely to stumble across some content with some connection to BBC during the week. But FM rebroadcasting does not bring U.S. listeners the full diet of World Service programs. The full range of World Service programming is available via the Internet. Internet audio has been a godsend for the devoted radio listener. But, to me, there's something just not natural about listening to radio via the Net. Perhaps it is the audio compression that is subconsciously fatiguing. Radio is supposed to be the most intimate of the mass media, but listening to radio parked in front of a personal computer is not a cozy experience.... Shortwave, for all its faults and degradations, is a robust and time-proven medium. I can take a receiver the size of a paperback novel to any room of my house, and as long as it's fairly close to a window, reception of World Service will be at least adequate. Add the world-famous Elliott sky dangle antenna -- about five meters of any kind of wire connected to an alligator clip -- that's about seven cents worth of parts -- and reception markedly improves. I can even connect my portable shortwave radio to my car antenna, and listen on the road. Yes, there is occasional fading on shortwave. That's part of the experience. It's nature's way of reminding us that it is a privilege to listen to a radio station from another country far away. Among shortwave broadcast listeners in the United States, BBC World Service is the most popular station. Many of us think the programming from World Service is better than from anything we can hear on U.S. radio stations, commercial or noncommercial. Shortwave will not be the same without BBC World Service. BBC World Service will not be the same without shortwave.

Looking at Mytton's and Elliott's respective analyses and commentaries, I would argue that what we're looking at is less of a dichotomy and more of a confluence. Tides and time wash on, with us or without us, regardless of whether we are happy with the outcome. I sometimes



**Figure 15**  
*Kim Andrew Elliott, PhD, of the Voice of America*

Kim Andrew Elliott addresses the Winter SWL Festival in Kulpssville, PA in March of 2007. In addition to being audience research analyst for the Voice of America, Dr. Elliott is also a seasoned shortwave listener.

Photo by Daniel D. Brown

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imagine that I know what an eager blacksmith's apprentice must have felt when the number of passing automobiles increased day-by-day!

But, I am hardly a Luddite; I eagerly welcomed non-linear digital audio editing when it supplanted the old razor blade method (despite my having particular skill with the latter). Likewise, I have not listened to more than a half-dozen vinyl LPs over the past 20 years, preferring the convenience and low noise qualities of compact discs. I even experimented with the very earliest forms of audio streaming back when a 2400 baud dial-up modem was cutting edge! Nonetheless, I feel compelled to wonder if the shortwave versus streaming versus satellite issue is *really* only a matter of new technology meeting old. Could there be other forces—political, sociological, and economic—at work here?

Radio Miami International's Jeff White supplies a large piece of the puzzle when he observes that a signal event of the late 20<sup>th</sup> century may have been a catalyst for some of the large broadcasters to retreat from shortwave:

The move away from shortwave broadcasting by many longtime government-controlled broadcasters began with the fall of the Berlin Wall and communism in general. Gradually the government-owned stations whose primary purpose had been to transmit propaganda during the Cold War decided that their primary reason for being no longer existed.... During this same time period the world economy has seen a significant downsizing that has become commonplace in both government and private sectors, so state-owned broadcasters have reduced or eliminated their foreign services, justifying this by saying that the ideological wars of the Cold War period no longer exist. Some stations have said that there has been a decline in shortwave listening, but there are no compelling figures to prove this. Perhaps it has declined in some countries, but it has also definitely risen in others. Many of the government broadcasters decided that they could continue to provide international radio services, but much more cheaply, by transmitting via satellite and the new technology of Internet (E-mail interview).

If the heyday of international broadcasting coincided with the Cold War, and its major practitioners were engaged in high-powered, high-frequency rhetorical battles of the airwaves, it stands to reason that those same players might find themselves short of a *raison d'être* once communism fell, regardless of changes in technology. Remember, the Voice of America might have shut down after V-J day had not a new mission been found.

Consider, too, that international broadcasters—especially those that are government sponsored—have to serve foreign constituencies through the use of domestic funding. In essence, the station's listeners are in other countries while the Congress, Parliament, or Politburo has to pay for the broadcasts. With clear-cut geopolitical aims at play, legislators may be more amenable to funding international broadcasting; without such aims, the coffers may be closed.

Broadcasters with a perhaps less ideological geopolitical stake have often had to deal with the kinds of financial challenges that former Cold Warriors are just now learning to face.

Former Radio Canada International host Ian McFarland observes:

Being government funded, the budgets of most international broadcasters tend to reflect government fiscal situations. When governments get into a financial bind the broadcasting budgets usually get cut. In the case of RCI, the fact that the service was largely unknown within the Canadian public (apart from that portion of the public who were shortwave listeners) didn't help RCI's situation. I can recall times many years ago now, when there were federal budget problems; some members of Parliament would take a look at the RCI budget and figure that this would be a good place for the government to save some money by closing RCI down. They didn't have the first clue as to what a bargain RCI was as far as making Canada known abroad was concerned (E-mail interview).

Shortwave scholar and broadcaster Dr. Adrian Peterson also acknowledges the role that finances play in the changes underway in international broadcasting:

There are several major reasons why international shortwave broadcasting is under recession in recent time:

1. Economics—a recession throughout the world in available funding for international shortwave broadcasting.
2. The concept that other stations are cutting back, therefore "we" should also.
3. The fact that the value of international shortwave broadcasting is not understood by major decision-makers in western countries.
4. Other electronic delivery systems are available increasingly in many parts of the world (E-mail interview).

Former Swiss Radio International host Bob Zanotti agrees that “me, too-ism” is at work in the world of shortwave broadcasting, but he argues that there is a darker, more sinister aspect to afoot:

For years now, I have heard the repeated, tired refrain: “shortwave is dead”. I recall the teachings of C.G. Jung and his concept of *Collective Consciousness*, in which a prevailing belief or slogan, repeated often enough, and although even a lie, can influence the thinking of an entire group or even nation. Goebels, Hitler’s

propaganda minister, embraced this concept, and used it to manipulate an entire nation, with cataclysmic results. Powerful, manipulative forces are at work here. Although difficult to prove, there has even been speculation that considerable ‘promotional fees’ may have been paid in the process. A big part of the sales talk involves belittling shortwave as a relic of the past and exalting the virtues of technologies that are frankly not yet mature. This sounds good in today’s shallow-thinking, buzzword-ridden world, but in the final analysis it doesn’t make sense. To make the propaganda strategy complete, those who would question the slogans are conveniently labeled as *uninformed, obstructionist, inflexible, old-fashioned*, or generally *lacking in vision* (*The Future of Shortwave Broadcasting* 1-2).

Whether or not the dark forces Zanotti alleges are indeed at work to hasten shortwave radio’s demise can only remain a matter of speculation. But, from what I have observed as a shortwave listener, from what I have learned through my interviews with broadcasters and other listeners, and from what I have gathered from reading a great many articles and books in preparation of writing this thesis, I believe that there is no single development which has been the catalyst for international broadcasting’s apparent downhill slide.

Instead, I see a “perfect storm” of three key ingredients coming together: the fall of communism, the coming of Internet audio streaming (and to a lesser degree satellite distribution), and the cutback of funding. In other words, the downward slope of shortwave has come about because of a convergence of politics, technology, and economics.

Will international radio broadcasting survive? What are some of the unseen pitfalls of the “new” media? A peek into the shortwave “crystal ball” is as near as the next chapter.

## Chapter 9

### *The Future of Shortwave*

Is shortwave radio really just a curious technological relic ready for the scrap heap? While many of the large international broadcasters have wholeheartedly embraced Internet and satellite distribution over what they see as the expense and lack of returns of shortwave, some experts are saying, “Not so fast!”

Internet distribution of programming has truly been revolutionary; there are audio and video programs to suit any interest or taste, ready for downloading or immediate streaming. But, the problems of portability, access, price, and—for lack of a better term—the “experiential quality” that I have mentioned in earlier chapters aside, the Internet has some significant flaws that affect its suitability as conduit for the international broadcaster.

First, the Internet is vulnerable to malicious Denial of Service (DoS) attacks. At its most basic, the DoS attack simply floods a computer server with incoming traffic sufficient to block normal business. The very resources that make the Internet possible can be turned against the system to a massive degree; by using innocent third party servers, miscreants can flood and re-flood not just single servers, but networks and potentially the entire Internet. After his company was blasted by such an attack Steve Gibson said, “Nothing more than the whim of a 13-year old hacker is required to knock any user, site, or server off the Internet”. Gibson isn’t exaggerating; the DoS attack on his company *was* the work of a savvy 13-year old (1-3).

But, Internet attacks are not limited to brute-force flooding. Flaws in computer operating systems or in specific programs can be exploited in order to bring down or take control of individual machines or entire networks (Lo 1-2). How often do alerts pop up on our computer screens telling us we need to upgrade software for security reasons?

Of special significance to international broadcasters and those who would listen to them is the outright blocking of access by government Internet filtering. As Jonathan Zittrain and Benjamin Edelman of Harvard Law School's Berkman Center for Internet & Society observe, "A variety of organizations, institutions, companies, and countries seek to restrict Internet access from within their premises and territories. ...countries may seek to control the information received by their citizens generally" (1).

Radio broadcasts are certainly susceptible to jamming. Countering the counter-measures is not necessarily a simple task, but it can be done—through higher powered transmitters and constant "cat and mouse" frequency changing (Heil 17). As Elliott points out, "Because of the physics of shortwave propagation, distant transmitters often deliver a stronger signal than closer jamming transmitters, so jamming often fails. Transmit on enough frequencies from diverse sites, and at least one frequency is likely to get through" (E-mail interview). When the broadcaster and listener are both persistent, the message can get through.

But, with government Internet blocking, there are not only few workarounds for the diligent listener, attempts to listen to or read a banned site may bring additional problems since 'net activities leave the digital equivalent of a bread-crumbs trail. Not only can a repressive government block your access, they can also track your attempts to gain outside information and use that data to suppress your efforts or even prosecute you.

Satellite reception, too, has some salient problems. Dish antennas must be mounted in the clear outdoors in order to work; this certainly precludes surreptitious reception. If a regime seeks to block information from flowing via satellite, it need only look for the all-too-obvious dish. According to this 2006 news item, Iranian authorities reportedly did just that:

Hundreds of police in Tehran have begun dismantling satellite antenna dishes from the city's rooftops - part of a campaign to



prevent Iranians from watching Western television programmes. The move follows a recent police order that all satellite dishes - officially banned but tolerated until now - be removed. The campaign against satellite television was launched by the Minister for Culture and Islamic Orientation, Hassan Saffar Harandi, who said "we have to halt the West's cultural offensive," on Iran. Some observers believe that the clampdown is aimed at keeping the government's control over news regarding Iran's dispute with the international community regarding its nuclear programme (quoted by Klinghoffer).

Kim Andrew Elliott, while not overly sanguine about the future of shortwave, observes that the medium still maintains a distinct advantage in the face of other media control:

The remaining advantage of shortwave in our multimedia age is that, of all the media available to international broadcasting, shortwave remains the most difficult medium to interdict. Web sites can be and are blocked by countries such as China, Iran, and a growing number of others. Satellites are fairly easy to jam, satellite dishes can be prohibited or confiscated, or politico-commercial pressure applied to satellite companies to take certain stations off their transponders (E-mail interview).

Elliot points to the example of how Rupert Murdoch, bowing to pressure from the Chinese, pulled the BBC World Service from his Star-TV satellite operation (Staubhaar 2).

No less troubling is word that the Chinese used a ground-based missile to shoot down one of its own satellites in January of 2007. While some point with alarm to how such an action could affect the U.S. military (which is especially dependent on satellites), the reality is that many of our communications and media infrastructures rely on satellites as well (Kaufman and Linzer 1-2). Targeting satellites could not only cripple the military, it could bring broadcasting, the Internet, and other media to their knees.

This brings us to another phenomenon involving the Chinese that is highly relevant to this thesis, but could also provide ample fodder for conspiracy theorists. While many other countries have been cutting back on their international radio services, the mainland Chinese have

seemingly *increased* their shortwave broadcasts. As an unnamed attendee at the Winter SWL Festival observed, “They’re all over the dial like Radio Moscow was during the Cold War!”

It may seem like perception equals reality, but I wanted to confirm that China’s shortwave presence has actually increased, so I compared my 1991 edition of the *World Radio TV Handbook*<sup>30</sup> with my 2007 edition. The 1991 schedule for Radio Beijing covers only a page and lists broadcasts in nine languages (including Esperanto!); the 2007 schedule for China Radio International—Radio Beijing’s successor—covers three and a half pages and lists broadcasts in 43 different languages (still including Esperanto)!

One need not be a “tin foil hat” conspiracy nut to wonder if there is not some connection between China’s prodigious shortwave output, its demonstrated ability to knock down satellites, and its history of Internet filtering (Zittrain and Edelman 2). Are these things related, or are they just another interesting confluence of events?

Between the radio programs of the People’s Republic of China and those of the Chinese Nationalists (whose Radio Taiwan International is also well-represented across the dial), listeners should be able to find *something* to listen to for quite awhile.

Indeed, while the major broadcasters have cut back programming to the developed world, shortwave remains a very viable medium in many other parts of the globe. By revisiting Graham Mytton’s statistics on shortwave penetration and use worldwide we can even see areas—particularly in Africa, Asia, and the Middle East—where shortwave radio ownership is high and use is regular (cited by Graham).

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<sup>30</sup> The *World Radio TV Handbook* is a comprehensive guide to virtually all of the world’s broadcasting activities. In addition to exhaustive listings of schedules and frequencies, the *WRTH* also carries equipment reviews and articles about the state of global and regional broadcasting.

An international broadcaster would be foolish to rely on Internet streaming to try to reach an audience in an area without electricity, much less telephones and Internet access. In that regard, shortwave may again have an edge.

The medium shows continued utility in reaching more developed but otherwise remote regions. After budget cutbacks almost completely shut down Radio New Zealand International (RNZI), a military coup in Fiji caused the New Zealand government to rethink the shortwave station's regional role. Today, RNZI is a major player in Pacific area media, both through its direct shortwave broadcasts and through revitalized rebroadcasting partnerships (Clark 106-7).

RNZI is also one of a number of stations worldwide to adopt use of Digital Radio Mondiale (DRM), an open standard digital radio system designed for use over shortwave and medium-wave AM. DRM holds the promise for much better audio quality than conventional amplitude modulation, and has the capacity to integrate data and text into speech (*DRM: Technical Aspects*).

DRM remains somewhat controversial in shortwave broadcasting and listening circles. There are not as many over-the-counter receivers available as there are conventional models, but hobbyists can build an interface that will allow a computer sound card to decode the digital stream. Demonstrations I have seen (and heard) of DRM have revealed that while sound quality can be impressive—certainly better than conventional shortwave—the mode seems more susceptible to adjacent frequency interference. That which the human brain can readily filter out apparently can play the devil with digital signals!

Some broadcasters—notably Radio Canada International—have enthusiastically adopted DRM for some of their broadcasts and relays they perform for other stations (Bouliane); others like Nigel Chapman, Director of the BBC World Service are less enthusiastic:

I'm not very optimistic about DRM, to be absolutely honest. We've been involved with it for a number of years, as you know, and we're currently doing trials in Europe. But my concern is about the sale of sets—who buys them and at what price. I'm also concerned about whether broadcasters can or should offer unique content to persuade people to invest in it. There's a degree of chicken and egg in it...(The Future of Radio II 38).

Still other broadcasters—like HCJB—have taken a “wait and see” approach with regard to DRM (Graham, *Faith & Shortwave*). Whether or not Digital Radio Mondiale proves to be the “savior of shortwave” still remains to be seen.

Nevertheless, I would like to pose a final question to my “expert panel” of broadcasters and listeners: Is shortwave radio still a viable medium?

Dr. Kim Andrew Elliot – Voice of America: “It might not be for long, if the number of shortwave radios, shortwave listeners, and shortwave broadcast stations drops below a certain level” (E-mail interview).

Dr. Adrian Peterson – Adventist World Radio:

Yes, definitely. Several countries in Africa and Asia still rely heavily on shortwave radio to communicate with the citizens throughout their country. International shortwave broadcasting is still an important and very effective method of communicating with large population areas in Asia, Africa and Latin America, and in all war torn trouble spots on planet Earth (E-mail interview).

Jeff White – Radio Miami International:

There is no question that shortwave is still a viable medium, and I think it will continue to be viable for at least another 20 years or so, and maybe much longer. The fact remains that despite all of the new technologies, shortwave is still the only medium capable of reaching an audience overseas directly and not subject to a local gatekeeper restricting it or cutting it off (E-mail interview).

Ian McFarland –Radio Canada International (formerly):

It is indeed still a viable broadcasting medium, but not to all areas of the world. It is still the cheapest way to get a radio signal to the largest number of people in African countries and India for example. Quite a few stations have stopped broadcasting to North America in English, and I have a feeling that this has come as a result of audience research. With the proliferation of the Internet in North America, and also in many parts of Europe for that matter, they figure that people can listen to programs on the stations' websites. I think that many of these decisions are probably driven by reduced budgets as well, and the need to maximise the effectiveness of what they do. While shortwave may still be viable to some parts of the world where vast geographical areas can be covered by a shortwave transmitter, many stations, VOA, BBC World Service and Radio Canada included, for some years now have been airing programs on local AM and FM outlets in major population centres in their target areas, the idea being that it is more effective to broadcast on radio media that listeners are already very familiar with (E-mail interview).

Bob Zanotti – Swiss Radio International (formerly):

Like it or not, from a purely technical point of view, the fact is, there is nothing at this moment to replace shortwave. One day there may be. In the meantime, it is good and wise to gain a foothold in the new technologies, but not to overestimate or over-represent their value. If market orientation is truly important, then we would have to admit that the demand is still for shortwave. Ironically, shortwave technology does not stand still either: there is a current effort to develop digital shortwave, which would go far in curing analogue shortwave's qualitative shortcomings. To quote the old saying: "Let's not throw the baby out with the bath water". Another popular and wise saying is: "If it ain't broke, don't fix it". I for one am in favor of new technology, provided it demonstrates a clear superiority to what is currently in use. In the case of shortwave, some would like to bury it before it has even died (*The Future of Shortwave*).

Lionel C. C. Lee – Radio Taiwan International

The audience from the Internet is getting more and more, but we never think that we should reduce our shortwave or transmit less because we still think that the shortwave is very important [to

reach] people in the country areas of mainland China and some other countries. So, we will keep on broadcasting via shortwave (Personal interview).



**Figure 16**

*Lionel C. C. Lee, Director of Mandarin Section,  
Radio Taiwan International*

Mr. Lee is seen here addressing the “Broadcaster’s Forum” at the 2007 Winter SWL Festival in Kulpville, PA. At this forum, listeners and broadcasters discussed the future of shortwave radio.

Photo by Daniel D. Brown

Thomas J. “Skip” Arey – Writer, author, shortwave listener:

If you understand the technology, absolutely! It’s a viable medium and they [broadcasters] are putting it aside at their own peril. The reason I say this is, satellites: solar flares; Internet: hackers. Less than a year ago, a hacker brought down all but one of the DNS servers; if he had brought the last one down...the whole thing would’ve come down. Well, you know what? It’s going to happen. You know what? Satellites have solar flares<sup>31</sup>. Three weeks ago the Chinese put a satellite up that kills satellites. You put all your eggs in one basket, I think it’s going to be interesting because some sort of event—natural or human contrived—is going to occur in the not too distant future [that will] make a lot of countries embarrassed that they didn’t maintain their shortwave service (Personal interview).

David Goren – Radio producer, shortwave “enthusiast”:

There are parts of the world that are nowhere near ready for the digital world. I think in a lot of Third World countries it’s not like, “Honey let’s turn on the shortwave radio,” it’s, “Honey, let’s turn

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<sup>31</sup> The solar flares to which Arey refers can affect not only satellites, but other communications circuits as well, including radio. A powerful enough solar flare can even impinge upon electrical distribution (Schmid).

on the radio and find something.” A [shortwave] broadcaster can get a signal into a country where the media may present only one side of a story to the people. Even with jamming, the signal still gets through oftentimes (Personal interview).

Andrew Yoder – Author and editor, shortwave listener:

Definitely! It’s not less viable now...and in some ways I think it’s more viable because you can always filter a website—a country can filter websites—but you can’t filter shortwave. You can try to jam it, but that’s only effective to a point. Shortwave is helpful for a healthy democracy because it can go across borders (Personal interview).

Fred Osterman – Universal Radio; shortwave retailer and longtime listener:

There is no doubt that the Internet and satellite communications [have] greatly impacted shortwave. And the medium is seen as rather archaic by many '20 something' and '30 something' bureaucrats both here in the USA as well as Europe. After all with the web, what do you need shortwave for? And since VOA and BBC have local FM relays, the cities are covered. We know better of course, as the web is not quite so accessible in the third world as the developed world. Further, in the last few years we have seen that in less than open societies, the local regime can quickly restrict AM and FM broadcasting and even literally "pull the plug" on the Internet (or heavily filter it). This has happened in Zimbabwe, Nepal, etc. (E-mail interview).

Will international shortwave broadcasting have a digital future? Will the cutbacks of the last five years abate or will shortwave continue to evolve into a hobbyist medium in the developed world, and an ongoing media lifeline in developing areas? While it is evident that international broadcasting is truly in the midst of—at the risk of using a hackneyed term—a paradigm shift, it is virtually impossible to accurately predict what will happen to shortwave radio. Talk to any shortwave listener or longtime international broadcaster, though, and you will learn that they do not want the “magic” to end.

## *Conclusion*

Radio was initially a point-to-point communications medium and not the ubiquitous information and entertainment source that it eventually became. At virtually the same time that radio was evolving from utility to broadcasting, amateur radio enthusiasts discovered that the short wavelengths (high frequencies) to which they had been relegated by law were capable of sustaining communications that spanned oceans and transcended national borders.

This discovery of shortwave radio's remarkable properties led to long distance commercial communications, but it also led to a new form of worldwide broadcasting.

For 80 years international broadcasters have used shortwave radio to reach distant audiences. Initially such audiences were expatriates serving in colonial outposts and shortwave was a means to keep far-flung citizens in touch with their homeland. Secondary (non-expatriate) audiences soon tuned in as well and various nations mounted international broadcasting stations to reach these new listeners.

International broadcasting evolved as a tool of national pride, publicity, diplomacy, and propaganda. This latter figured prominently in shortwave radio's extensive use during World War II and into the medium's "golden era" of the Cold War. Some shortwave stations trumpeted a particular ideology while others sought merely to tell the world who the originating nation was as a people. Others offered salve and salvation in the form of religious broadcasts.

In developed countries especially, shortwave radio developed a cadre of enthusiasts: some sought the thrill of the hunt as they looked to receive distant and exotic stations; others were more interested in actually listening to the programs they heard. Many pursued both interests, choosing sometimes to log and verify reception of rare stations and other times to simply sit and listen.



In remote areas of the world and in developing countries, shortwave radio often offered the only outside connection. In repressive regimes with tightly controlled media, shortwave radio offered a window to the outside world and a lifeline to the truth. This still holds true today.

Many international broadcasters maintained their continuing missions and held onto their operating funds because of the Cold War. When the Berlin Wall fell and the Cold War ended, the *raison d'être* of many shortwave broadcasters came into question. Even stations with less ideological orientations found their continued operations threatened.

Funding has often been problematic for international broadcasting stations, if for no other reason than their listeners were in other countries. With an “out of sight, out of mind” constituency, convincing legislators to fund shortwave stations has often proved challenging.

With the rapid development of private access to the Internet and the refinement of digital audio streaming techniques, stations began to exploit these seemingly less costly means of program delivery.

In the summer of 2001, the BBC World Service—one of the largest and most respected of international broadcasters—dropped shortwave service to North America and the South Pacific region. While not the first (or the last) broadcaster to drop shortwave, the BBC’s move was a signal event for international radio. The BBC claimed that they could reach more listeners via the Internet and rebroadcasting partnerships with local AM and FM stations

Critics complained that such rebroadcasting partnerships only allowed listeners to hear a small portion of the programming previously available on shortwave, and that Internet streaming—while useful—was not portable and did not offer the same listening experience offered by shortwave.

Nonetheless other major broadcasters followed suit and left shortwave radio altogether or sharply curtailed broadcasts to North America and other parts of the developed world. Some redirected their radio efforts to the developing world where shortwave use is still common and popular. Others focused largely on the Internet or satellite distribution; at least one station—Swiss Radio International—ceased to exist completely.

This early 21<sup>st</sup> century “perfect storm” of politics, economics, and technology marked a true paradigm shift: a formerly jam-packed shortwave dial was now comparatively quiet. While many national stations maintained some shortwave presence, the cutbacks of major broadcasters like the BBC, Deutsche Welle, HCJB, and Swiss Radio International severely affected many listeners’ abilities to use shortwave radio as they had.

As many longtime broadcasters left shortwave, another one expanded its operations. China Radio International—formerly Radio Beijing—popped up in many new languages and on new frequencies. Observers found this move by the Chinese interesting and perhaps somewhat ironic in light of the country’s history of filtering the Internet and their proven ability to shoot down communications satellites.

Indeed, critics have noted some significant problems with the “new media”, particularly citing the Internet’s vulnerability to hacker attack, as well as its capacity for being blocked and users’ actions tracked by repressive governments. Shortwave, while subject to jamming, is very hard to block completely, they point out.

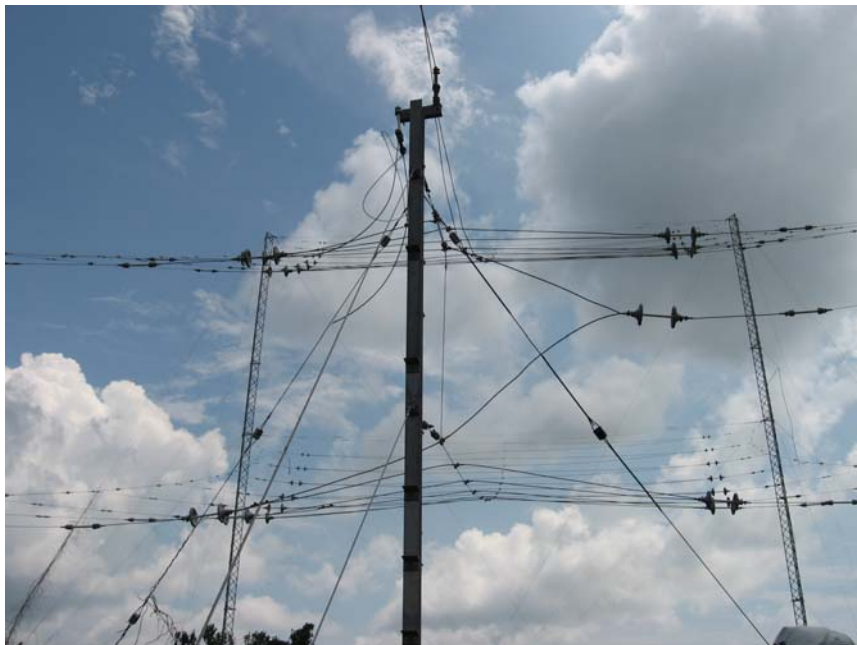
Meanwhile some broadcasters are testing a new means of transmitting digital signals over shortwave. This method—Digital Radio Mondiale, or DRM—can provide remarkably high audio quality, but some tests indicate the mode may be particularly susceptible to interference.

Some international broadcasters have enthusiastically endorsed the new scheme, others are unconvinced, while still others have adopted a “wait and see” approach.

In remote regions and in developing nations, shortwave radio still provides a vital link. For those in North America and other parts of the developed world shortwave still offers listening opportunities, but the absence or curtailed presence of many longtime favorites has left a dial predominated by evangelical broadcasters and non-English programming. Those who revel in chasing down small and exotic stations still have ample—in some instances greater—opportunities to practice their avocations.

But, for many listeners for whom shortwave has been a daily source of varied news and public affairs programs, a way to hear unusual and exotic music, a window into other cultures, and a ready and good companion, the recent changes in international broadcasting represent—at the very least—the beginning of the end of that thing often described as “magic”.

I am one of those listeners, and this *is* an elegy for a dear friend.



**Figure 17**  
*Log-periodic transmitting  
antenna of WRNO  
Worldwide, Marrero, LA*

The first contemporary-era commercial shortwave station in the United States. As of this writing, the station remains off the air.

Photo by Daniel D. Brown

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## Appendix

### Audio Files

Click green boxes to hear audio, red buttons to stop.

#### Interval Signals

[Radio Australia](#) interval signal\*

[Radio RSA](#) (the Voice of South Africa) interval signal\*

[Radio Sofia](#), Bulgaria interval signal and identification\*

[Swiss Broadcasting Corporation](#) interval signal\*

[Voice of America](#) interval signal

\*From the collection of Ian McFarland, used by permission

#### Shortwave Station Program Excerpts (Longer files may take a moment to load).

[BBC World Service](#) *Newsdesk*

Excerpt includes BBC signature tune “Lilliburlero” and time pips.

[Radio Canada International](#), *SWL Digest* excerpt (circa 1991)

Excerpt mentions of the utility of shortwave in World War II and in contemporary era.

[Radio Netherlands](#) *Happy Station* program (circa 1991)

Excerpt of long-running program with host Tom Meyer reading birthday wishes.

[Voice of America](#) news broadcast (February 1991)

Excerpt of bulletin concerning the First Gulf War.

[Voice of America](#) “Special English” broadcast (January 1992)

Example of technique used to reach less-than-fluent English speakers.

## **Vita**

Robert L. Dunn graduated *summa cum laude* from Loyola University New Orleans with a Bachelor of Applied Science degree in Communications. For 15 years he was administrator of the WWL-TV Audio Center where he was twice honored with regional Emmy awards for sound design. Over the past 35 years Dunn has worked in a variety of other broadcasting and media related jobs including as a radio personality, production manager, and as a television reporter. He is a member of the Broadcast Education Association, the North American Shortwave Association, the American Radio Relay League, and the Society of Broadcast Engineers, which has rated him a Certified Broadcast Technologist. Dunn also holds an FCC commercial General Radiotelephone license and an Extra Class Amateur Radio license.