

THE TROUBLES WITH FM

What went wrong? What caused such a reversal in fortunes? And how did these reversals affect Michigan broadcasters? There are numerous 1950s articles in magazines such as *FM and Television* that deal with this question. At the time, some experts would have said the answer was technical problems with FM itself. And without a doubt, that was somewhat true. Anyone who listened to FM in the 1950s will recall the frequent drifting caused by oscillator instability on early FM sets before radio manufacturers began to compensate for this trait by adding "Automatic Frequency Control" or "AFC" (basically an internal reference frequency). In addition, the lack of quality source material was a problem. Early 1950s records were still of poor quality, inferior to those made in England and other countries, which benefited from extended upper ranges. By 1954, some stations (including MAJ Armstrong's W2XMN) had begun using "hill and dale" recordings which spun at 80-100 RPM and allowed better sound and more recording space by employing vertical modulation (modulating the inside of the groove rather than the walls) which produced satisfactory dynamic results on FM (see references to these recordings on the Armstrong Web Site and in the book *From Tinfoil to Stereo*, by Walter L. Welch and Leah Brodbeck Stenzel Burt, University of Florida Press, 1994). But in the final analysis these problems were dwarfed by the real issue, the coming of age of television, which caused broadcasters to divert all their resources to that new medium and that captivated the interest (and wallets) of consumers.

An article in *Broadcasting Magazine* dated October 9, 1950 titled "FM Pulse Beat", while claiming that 6 Million homes nationally had FM sets, hit the nail on the head when it added: "Had it not been for television's simultaneous birth, FM might have captured the public's fancy with its high-fidelity and static-free claims, many of its friends insist. Certainly the glamour of visual radio has held the postwar spotlight in the populous parts of the nation, with FM unable to stir violent public response to its claims." As television took over America's living rooms and caused radio broadcasters to even fear for the revenue from their AM operations, separate high fidelity FM programming became virtually untenable. *FM and Television Magazine's* crusading publisher, Milton B. Sleeper, admonished FM broadcasters to continue live programming or the quality that was the FM difference would be lost. In 1945 he wrote, "Newcomers should be warned that programs are what build audiences and audience-building requires much more than the services of a platter-turner." But they generally found it to be no longer financially viable to heed that advice as even venerable operations such as New York's classical WQXQ eventually resorted to re-broadcasting the programs of its AM companion, WQXR.

In addition, the broadcasters' fundamental view of FM seems to have changed by the late 1940s. When commercial FM broadcasting began in 1941, stations concentrated on sound quality. They spent money and did research on studio acoustics, microphone placement, and other factors to achieve good sound. By the late 1940s however, some broadcasters came to view FM as merely a supplement to AM, a way to fill gaps or nulls in their service contours, to broadcast after sunset if their AM station was licensed for daytime operation only, or to off-load network programs that were becoming increasingly less popular as television gained traction. In addition, the FCC-mandated shift from the 40 MHz band to the post-war 100 MHz band certainly contributed to lack of faith in FM radio (obsolescing 21,000 radios in Detroit based on *FM Business*

Magazine) especially since the original allocation was challenged and caused a second round of frequency allocations to occur within the new 100 MHz band. There was never a more bitter debate full of conspiratorial theories than the one over the relocation of the FM band. Even the uproar over the RCA vs, CBS color TV systems seems benign by comparison. And it dovetailed with other initiatives such as the “single market plan” which reduced the power of FM stations and a myriad of other events and initiatives that nearly destroyed FM. Please see *Empire of the Air: The Men Who Made Radio*, by Tom Lewis, 1991, Chapter 12, “Until I’m Dead or Broke” for a closer look at these events and the role they played in the demise of MAJ Armstrong.

Then there was that strange call letter construct for FM that confused many listeners. Pre-war call signs like W45D sounded as odd then as they do today. People today think they were experimental calls (they were not) while others are thrown by the numeral “4” in the calls expecting of course an “8” for Michigan stations. In fact, these calls were crafted to fulfill an ill-fated desire on the part of the FCC to mimic what was being done in some other countries (*FM and Television* mentions Chile for one) where the call sign itself carries substantive information about the station. And so W45D was known by its call as a Detroit FM station at 44.5MHz. (In some cases, the calls contained two letters for the city code; Columbus was “CM” to delineate it from Chicago, which was “C”, while cities with two words generally used two letters, like New York and Ft. Wayne). Eventually stations convinced the FCC to adopt standard call signs, but even this caused more confusion as stations at first used unique FM calls rather than the “-FM” suffix. All of this caused a six year long ball of confusion.

Here is a timeline of how all of this played out for Michigan’s two pre-war stations (Source: *Detroit News* Radio guides and *Broadcasting Magazine*, September 17, 1945):

May, 1941	W45D signs on at 44.5MHz in Detroit W49D signs on at 44.9MHz in Detroit
November, 1943	W45D call changed to WENA (Evening News Association) W49D call changed to WLOU (Louise Booth)
September, 1945	WENA and WLOU receive their frequency allocations in the new FM Band (See note below).
September, 1946	WLOU begins operations at 96.5MHz and ceases operations on 44.9MHz
October, 1946	WENA begins operations at 96.9MHz while continuing operations on 44.5MHz. (note: many stations continued operating on both bands with the determining factors being power and space availability for antennas and transmitters)
April, 1947	WLOU becomes WJLB-FM (operating from 1-9 PM)
May, 1947	WENA becomes WWJ-FM and ceases operations at 44.5MHz (operating from 12-10PM) (at the time <i>FM Business</i> reported there were 21,000 low band (obsolete) radios in Detroit and 3,000 high band sets).

September, 1947 WJLB-FM shifts to 97.9MHz (where it remains today)

December, 1947 WWJ-FM shifts to 97.1MHz (where it remains today as WKRK)

Note: Specifically the FCC allocated WENA at 96.9MHz, FM channel 45, ERP 10.5kw, HAAT 663 ft. It allocated WLOU at 96.5MHz, FM channel 43, ERP 20kw, and HAAT 362 ft. That height was approved temporarily as all stations were at the time were required to maintain a HAAT of not less than 500 ft. unless waived.

As we will see in the Michigan case studies, there were also periodic issues with the Musicians' Union involving broadcast of network programs over FM stations that impacted FM programming, at least for a time. It seems that many circumstances conspired to keep FM from gaining public acceptance and the stations from earning needed revenue. However, of those, television was clearly first on the list. To further explore the early years of FM and the challenges broadcasters faced, I have selected three Michigan communities, one an industrialized urban area, one a small semi-rural town and one a downriver suburb of Detroit. I will focus on four early FM stations that followed the national trend. They emerged soon after World War II, their owners steeped in optimism about FM's future. Each failed in the 1950s with three of the four eventually returning to the air as new starts or through purchases of existing stations years, and even decades later. In most cases, memories of the earlier incarnations of these stations are lost.