

This article is an outgrowth of Gene Martin's "A Silent Night (Well, 99.75% Silent!)," which appeared in the August 12, 1972 DXM. In his article Gene tells of listening during the 1926 tests for European stations, only to hear KPSN in Pasadena, California, which had broadcast through the silent hour. He suggests looking through the records of the New York Times for more information, which is what I did. I found that what Gene heard was the third and last annual International Radio Week test. After finding more information in radio magazines of this era, I thought that the club at large would be interested in learning more about this unique series of tests.

The story of the International tests begins in 1923. Mr. F.N. Doubleday, president of the Doubleday and Page publishing company, visited England that year, where he spent part of his time studying the British system of broadcasting. On his return to the U.S., he suggested, at a meeting of editors of the company's magazines, that broadcasting a series of programs from United States stations to Great Britain would act as an aid to both the advancement of radio and strengthening of international friendship. The staff of Radio Broadcast, a Doubleday and Page magazine in its second year of publication, was asked to work out the details.

The magazine formed a working plan, which expanded the proposal to having the two countries exchange programs through the "ether." Radio Broadcast contacted the editor of Wireless World and Radio Review in London, who made arrangements for the cooperation of the British Broadcasting Company. The tests were to be run as a part of National Radio Week, November 25 to December 1.

This was far from the first attempt to bridge the Atlantic using radio. Marconi first did it in 1901, longwave telegraphic service had been in use for many years, and, during a test in December 1921, amateurs using code on 200 meters (1500 khz) had successfully gotten through to England using as few as 15 watts. It was also known that "low wave" (shortwave) signals could easily span the globe. However, the general public did not have the equipment needed to tune in these special wavelengths, and had never heard English transmissions. The few who did try to log England on the regular wavelengths found that, when American stations cleared the airwaves after a days broadcast, there were no British stations to be heard, since they had ceased their transmissions a few hours earlier. So, many were enthusiastic over the thought that they might be able to directly hear, on their own receivers, signals originating from the Old World.

The special schedule of programs was set up. The first six nights were set aside for one-way transmissions, with England taking the first night, and the two sides alternating during the next five. The last night, December 1, two-way communication between the two sides would be attempted. The time period for the programs was from 10:00 to 10:30 PM EST (3:00 to 3:30 AM for the tired staffs in Britain) each night.

For the tests the BBC used eight stations throughout England, all carrying the same program, connected by landlines to a studio in London. Their wavelengths ranged from 353 to 495 meters (849 to 605 khz), with one station rated at 500w and the rest at 1kw. During the English broadcasts U.S. listeners were supposed to listen for the station with the strongest signal, and then wait until the end of the program for the station's call. When listening for American signals, the British had no trouble in clearing their wavelengths of interference from locals, since the BBC controlled the few stations operating on English soil.

Organizing the broadcasters in the United States was more difficult. There were approximately 500 U.S. stations operating on a band from 222 to 545 meters (1350 to 550 khz). For the tests to be a success the amount of interference from these stations would have to be limited. Radio Broadcast, with the help of the National Association of Broadcasters, was able to get very good cooperation from the stations they asked to stay off during the tests. (Although they made the mistake of not contacting Canadian, far-western and low-powered stations, which they incorrectly believed were too weak to cause interference.)

The cooperation which they received was not unusual, even though they were asking for sole possession of a week long slice of one of the most popular timeslots. Few stations were fulltime anyway, since most had to share the frequency they were on. More important was the institution of "Silent Night." Most set owners were interested in seeing how far they could pull in signals from distant stations.

Broadcasting for the public had started only three years earlier at KDKA, and people still tended to be more interested in the miracle of receiving a station than in its programming; the programs generally consisting of unpaid local talents. Broadcasters in each city would usually set aside one night a week during which they would refrain from broadcasting for a few hours, clearing the airwaves of interference to the long distance "auditor" in search of "DX." So, staying off the air to aid auditing was, at that time, a common feature of a station's responsibilities.

The stations chosen to broadcast for the test worked hard to line up suitable programs for trans-Atlantic reception. It had been hoped that President Coolidge would broadcast his greeting to the English people, but there was not enough time to make the arrangements. Hopes to have the Prince of Wales and Prime Minister Baldwin address the United States met a similar fate. However, many other famous personalities made addresses during the week. Henry Ford spoke over his station in Dearborn, Wisconsin, while Frank Conrad spoke along with the British Vice-Consul over the station Conrad helped start, KDKA. Owen D. Young, Chairman of the Board at General Electric and RCA, Major-General James G. Harbord, President of RCA, and Charles Evans Hughes, the Secretary of State, also made addresses. And, from the English side of the Atlantic, Guglielmo Marconi spoke of the day when crystal sets in America would be able to pick up English programs.

On Sunday night, November 25, the tests began. All around the country persons tuned up their radios, straining for a hint of the English signals. Radio Broadcast had special 6-tube receivers at their HQ in Garden City, Long Island, and many other publications, radio stations, and manufacturers set up their own listening posts.

Radio Broadcast wrote about their experiences on the first night. For the first 15 minutes nothing was heard. Then, faint, illegible speech was picked up. A cable, using the special direct telegraph line installed at Garden City, was quickly sent to the BBC asking for a piano solo. Three minutes later the notes of a piano were heard, followed by the words, "Hello America."

During the week thousands of persons tried for the signals, although few heard more than parts of a musical selection or two, that left them wondering if they had really heard Britain. Even fewer persons in England had been able to hear the American signals.

The main interference during these tests had come from stations that stayed on the air. However, another source of interference were the receivers themselves. Many of the radios used an inexpensive system of amplification called "regeneration." When radios of this type were turned up too high, they sent out a high pitched "blooper" on the wavelength they were tuned to, that was audible up to two miles away. Inexperienced operators, who thought the brighter their radio tubes burned the better, were the main offenders. Listeners in Britain were luckier, because regenerative sets were illegal there.

For all the problems and failures that the tests had, the public was still interested in trying again.

They got their chance a year later, when what was now called the "Second Annual International Tests" took place. The 1924 programs were much more involved than those of the previous year. The transmissions were still during a week long period, November 24 to November 30, but had been expanded to two hours a night.

The number of stations participating had also been increased. In the United States about forty stations from coast to coast were chosen to take a part, compared to 1923 when only East Coast and Midwest broadcasters were involved. England now had 14 stations, including a longwave one. And Continental European broadcasters were included this year, with a mixture of longwave and mediumwave stations from France, Holland, Belgium, Germany, Italy, and Spain involved.

This year American broadcasters had an hour each night, from 10:00 to 11:00 PM EST, to send over their programs. From 11:00 to 12:00 all of the 535 U.S. and 50-odd Canadian stations stayed off the air to clear the way for the European transmissions. The English stations broadcasted during the silent hours on Tuesday, Thursday, and Sunday nights, while the Continental stations had Monday, Wednesday, Friday, and Saturday.

There were 723 licensed broadcasting stations in the U. S. at the beginning of 1938: also 20 licensed experimental television stations.

Number of network stations as of Feb. 1, 1938 were: NBC: 143; CBS: 115; Mutual: 76

Planning was better this year, but some problems still occurred. CYL in Mexico City, plus 7SR and 6KW in Cuba, held unexpected special programs that confused many American listeners, who thought only European stations would be on during the silent hour. Also causing trouble was the occasional broadcaster who strayed into the silent period. WIP was one, which on Saturday found itself approaching 11:00 with twenty minutes of the opera "Aida" unfinished. They tossed a coin, and thus chose to finish the program, saving themselves from the wrath of opera lovers, but getting it just the same from unhappy auditors.

The tests were much more successful in the United States than they had been the year before. A few thousand were able to verify reception of European signals, although the number listening may well have been in the tens of thousands. The European listeners, however, did not do as well, even though the American stations were sending with higher powers. Although twelve U.S. broadcasters had been heard during the 1923 tests, only four (KDKA, WGY, WBZ, and WOO - Philadelphia) made it this time.

Because of the increase in the number of persons listening, the interference from bloopers, especially in the cities, had been worse than ever.

The New York Times article, reviewing the achievements of the 2nd annual test, noted that many felt "superpowers" of 50 to 100 kilowatts would have to be used before "New York auditors can hear London as easily as Manhattan hears Chicago today." In plans for the next year's test, it was reported that instead of November the tests would be pushed back to January of 1926, in the hope that conditions would be better.

The Third International Test took place with much nationwide publicity and support. The National Radio Trade Association raised a fund of several thousand dollars, to aid publicity, and Powell Crosley, the famous radio manufacturer, was re-elected Chairman of the International Radio Week Committee. Radio Broadcast set up shortwave station 2GY in Garden City to aid their communications, and vowed to do their best to have a full listing of programs appear in the newspapers. This would make it easier for a listener to tell whether a program heard came from Europe. It was added that the schedules would include false entries, to "mislead the misleaders." Anyone claiming reception of an unbroadcast number would be given free membership in the "Ananias Club."

Although the tests had the vast approval of most broadcasters, there were some areas of discontent, especially in the far west. KFI, in Los Angeles, agreed, under strong public pressure, to respect the silent periods, but released a statement charging, "...the test week is designed primarily, we believe, to make the public dissatisfied with any set that does not receive European stations."

Hopes were high that reception would be much improved over that of the previous two years. During New Years some U.S. stations had been able to pick up and rebroadcast English programs, which was seen as a good omen. The chances of Europeans hearing U.S. programs was thought to be improved, since many powers had been increased, including WGY and WJZ (now WABC) which had added part-time 50kw transmitters. More foreign stations had been added, as well as the countries of Austria, Czechoslovakia, Peru, and Argentina. And the broadcast band in the United States was now from 200 to 545 meters (1500 to 550 khz).

The set up for the week was slightly different from the previous year. International Radio Week ran from January 24 to January 30, but only the first five nights featured trans-Atlantic tests. On each of these nights selected U.S., Canadian, Mexican, and Cuban broadcasters sent out programs for an hour starting at 10:00 PM EST. Then the silent hour started on this side of the Atlantic, and the Europeans had an hour to transmit. Sunday, the first night, and Tuesday were reserved for British stations, while Monday and Wednesday Continental broadcasters transmitted. On Thursday, the last trans-Atlantic night, all the Europeans were allowed to broadcast. South American stations ran their special programs on all five nights.

For Friday a new feature was added. The 11:00 to 12:00 silent hour was divided into 15 minute segments. For the first fifteen minutes, stations in the Eastern Time zone broadcasted. Then, Central, Mountain, and Pacific time zone stations followed, each with their own fifteen minute segment. The week closed on Saturday with a similar arrangement, except this time the broadcasters were grouped by Canadian, Northern U.S., Southern U.S., Cuban and Mexican designations. This new feature was interesting, but the real enthusiasm of the average "radio fan" still was in catching European signals.

With the exception of a few far-western stations (mainly KNX, KFI, and Gene Martin's KPSN), there was almost complete cooperation from North American stations during the silent periods. Even the rum runners, who had been asked not to interfere, apparently stayed off the air.

But, for all the improvements and high hopes, the tests did not fare well. Distribution of information was poor, even though, as noted earlier, efficient communication had been one of the goals for this year. A fierce storm was raging in the Atlantic, and, on the first two nights, transmissions by the East Coast stations were curtailed when SOS' were sent by ships in distress. (At this time all nearby stations were required to sign-off during emergencies, to curtail possible interference to rescue operations.) CZE in Mexico City held an English and Spanish program before and after the silent hour the first night, which many thought was coming from Spain.

Although programs from OAX in Peru and from the two Argentinian broadcasters had gotten out well, there were fewer reports of European reception than in the 1924 tests the year before. L.A. Nixon, the secretary of the International Radio Week Committee, reported from Garden City that, of the five thousand reception reports they received, only two thousand could be verified. Many reporters had apparently been fooled by hoax stations, operating in New Orleans, New York City, and Omaha.

So, even though more persons than ever were listening for the tests, loggings of the Europeans had declined. In fact, the former helped cause the latter. The bloopers of the regeneratives, which had interfered so much on previous occasions, were now a critical problem. Two-thirds of the five million sets in use at this time were regenerative types, and the howls and squeals of their combined voices, especially around the cities, was a din that one compared to "feeding time at the zoo." In many areas you did not have to know what frequencies were the most promising for that night's tests, all you had to do was find the greatest concentration of regenerative whistles. It was felt that many persons with better receivers would have logged Europe, had it not been for the radiating sets.

It is interesting to compare the two magazines which gave the most publicity to the 1926 tests, Radio Broadcast and Radio Digest - Illustrated.

Radio Broadcast of course, originated the tests. It was a monthly publication, costing 50c, and printed on the same high quality paper that National Geographic is famous for. Its cover, in 1925 and 1926, was a symbolic view of radio, which was used each month in a different color. The magazine had technical articles on subjects such as receiver design and maintenance, in addition to subjects of more general interest.

Radio Digest was quite a different publication. A weekly costing 15c, it was published on newsprint, with the cover usually featuring a radio personality. The magazine itself dealt with radio celebrities, the week's program schedules for 160 stations around the nation, and innumerable contests to keep the circulation up. Radio Digest seemed more disappointed than most listeners in the lack of success of International Radio Week. Their contest, offering \$100 in gold for the best reception reports, received only 16,784 letters and telegrams. (This can be compared to the 225,000 telegrams KFNF in Shenandoah, Iowa received, during a 30 hour program they held in March for their second anniversary.) The magazine also had strong opinions (not unusual) about problems which had plagued the test. They attacked the broadcasters which, even accidentally, had intruded into the silent hours. Radio Broadcast had special words too, for the stations which purposely had broadcast through the silent periods, saying the stations were more interested in commercial profit than in the rights of the general public.

Radio Digest cited the inefficient planning and poor communications of the International Week Committee, noting, "It is hoped that the next foreign test be arranged in a more business-like fashion." In contrast, Radio Broadcast was proud that "In spite of these handicaps, the foreign arrangements for the tests went forward with great completeness."

Then there was the matter of the bloopers. Radio Broadcast, in a section titled, "Printable Remarks About Bloopers," noted that they had never printed a design for a radiating set, and had frequently refused to advertise regenerative sets. But, they pessimistically reported, "...the fight is apparently a losing one, and our own weapons not strong enough to combat a menace this size."

Radio Digest disagreed. They declared war on the interference, forming the "I WILL NOT BLOOP CLUB." Membership was gained by signing a pledge not to bloop, and a certificate "suitable for billfold or framing" was issued to each member. The tremendous mail response which followed helped Radio Digest forget about the disappointing International Week Contest.

Radio Digest closed its article with, "The bloopers, aurora borealis, SOS signals, selfish-minded stations, etc., also are NOT invited to participate during silent periods next time," while Radio Broadcast wished, "Better luck next time!" However, there was no "next time."

From the Second Annual Convention of Radio Manufacturers, held in May in Atlantic City, came the news that the association would not support any more trans-Atlantic tests, because they were too expensive. The International Radio Week Committee was reported to be asking for public support in changing the Association's decision.

In August, David Sarnoff, Vice President of RCA, visited Europe, with hopes of setting up regular broadcasts of European programs in America. He was quoted as saying, "The day is done when people in the United States will listen to Europe for the novelty of doing so. The listeners are no longer interested in how they get their programs, but in what they get."

Mr. Sarnoff was right. With the coming of better programming from the commercial broadcasters, the lure of long distance reception could not compete with the entertainment that the local stations now offered.

Most of the information for this article came from the 1923 - 1926 issues of the New York Times, Radio Broadcast, and Radio Digest - Illustrated. Other sources were Radio World and Radio Times, as well as Gene Martin's original article.

The New York Times was available on microfilm at the local library, while the periodicals were read at the Library of Congress in Washington, D.C. Since special permission is not needed to read materials at the Library of Congress, it is an excellent source of information that more people could use.