

Station WWNC Spea

Lowdown On Origin Of Those Sounds In Your Radio Is Given

By JOHN E. JONES

THIS is Radio Station WWNC, Asheville, North Carolina.

The voice heard when such an announcement is made from the radio station here may be that of Ezra McIntosh, the program director, but it's highly probable that he is not near the microphone.

These station announcements are made by the means of an attachment containing many feet of moving picture film with sound track. By pressing a button, the station engineer is able to provide the station announcements at desired intervals. Thus, the routine work of the radio announcers is lessened to a great degree.

This unusual gadget has made some of the employes of WWNC appear as prevaricators in recent months. On one occasion, the automatic station announcements proceeded as usual, using the voice of Program Director McIntosh. And then the telephone rang!

"Let me speak to Mr. McIntosh," was the request from the other end of the line.

"Mr. McIntosh is out of the city—he is in New York."

"Oh yeah! I just heard him making a station announcement on the radio," was the retort.

The radio station, in many ways, is an interesting place. It depicts life on a "sound stage" for countless thousands of listeners during each of 17 1-2 hours in the day. There never is a "quiet time"—the show must go on as the actors say, and there must ever be "sound." If the studio is not occupied by a hillbilly or cowboy band or some other variety of live talent, programs are being received from the National Broadcasting company chain.

Great Care Necessary

Radio station officials have to use extreme care in the selection of religious and political programs for broadcasting. Not so long ago, John D. Hamilton, Republican leader, was speaking on a network program.

The telephone bell sounded. Came an excited voice: "Who in the h—is that d— politician on the radio?"

The response: "That is Mr. Hamilton, the Republican leader."

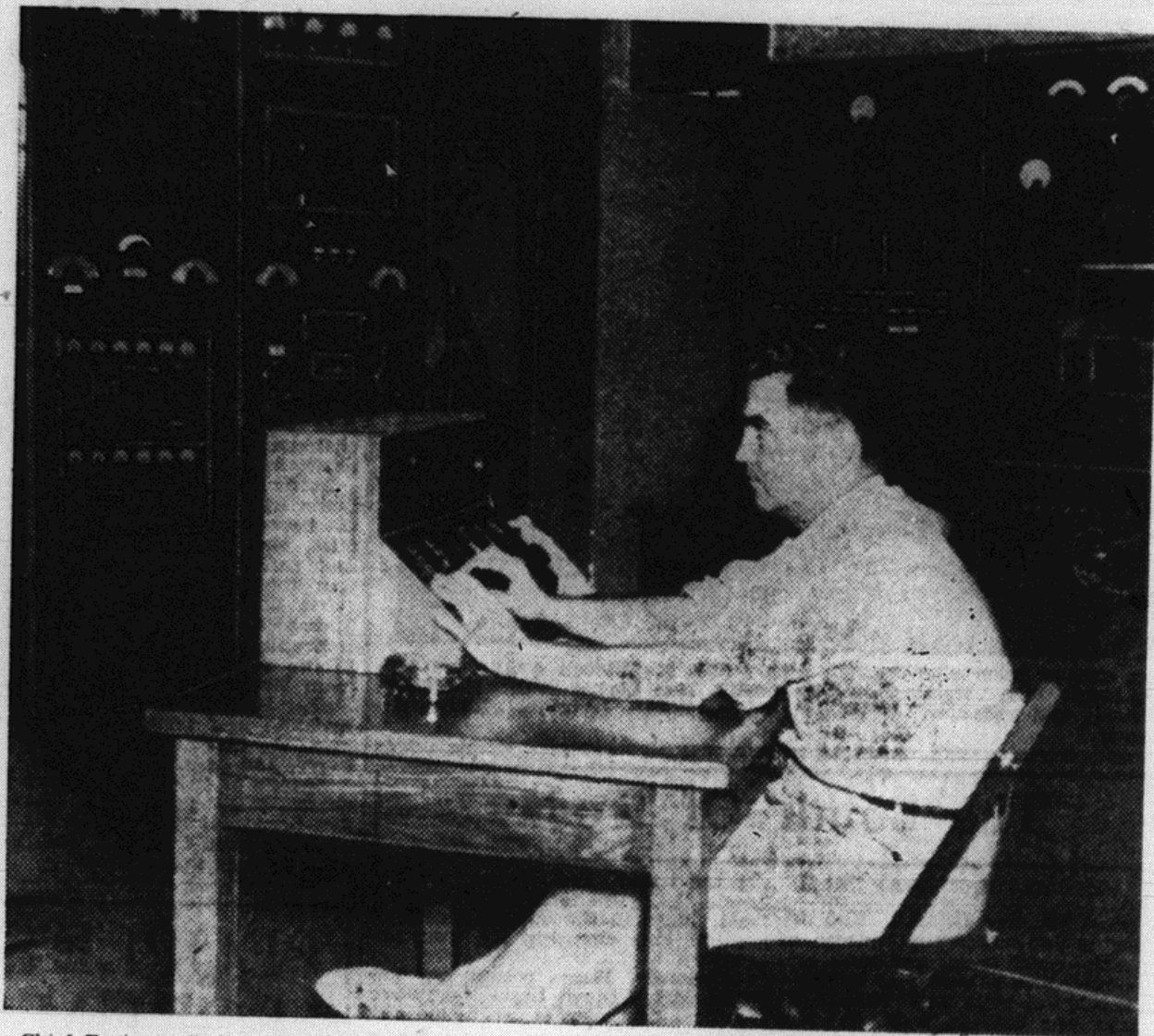
In a mild tone, there came something like this: "Oh, it is. Thanks."

Apparently a faithful Republican had mistaken the voice for that of a Democratic foe.

The radio station receives compliments and criticisms of various kinds from many persons. In some instances, however, the response is too small. It is not rare for a station to lose a network program due to the poor support of listeners in purchasing the products of the sponsor and in writing praises for the program. Just such an incident occurred recently in the case of a chain dairy program, which was dropped from the Asheville station.

In another instance, it required a

WWNC Speaking



Chief Engineer Cecil H. Hoskins is shown here in his room adjoining the studio of Radio Station WWNC operating the equipment during the broadcasting of a local radio program. As the program progresses, the engineer furnishes the proper blending of music and speech by the adjustment of dials on the table before him. Some of the equipment used in broadcasting is shown in the background.

great deal of local "pressure" to keep a well known automobile program on the schedule of Radio Station WWNC.

Occasionally, it becomes necessary for the alert radio station staff to come to the front for the listeners. Not so long ago President Roosevelt was scheduled to speak over the radio network of NBC from Manteo. The program was not offered to Asheville and other nearby stations. The officials of the station here got in touch with New York NBC authorities. The result: Asheville listeners heard the president over WWNC.

Calls For Help

There come to the radio station sundry calls for help. A frantic mother loses her child; a wife becomes desperately ill while her husband is on a hunting trip; a local lodge plans an "open house;" and there are dozens of situations in which the radio station is asked to assist.

Many of these requests find their way to one of two places: the business office of the station or the sheriff's department of the county. When-

ever the sheriff recommends that a distress announcement be put on the air, it is usually done.

As in other kinds of activity, radio has its slips—and once the words have begun their air journey, there is no means of correction.

It was in the description of a festival parade here that an announcer referred to a 93-year-old father as being "prolific." Another announcer—unacquainted with dairy animals—referred to a fine milch cow on a dairy float as an ox.

Radio as a business affords experience in several types of endeavor. There is the salesmanship type—a typical advertising business; the production end with its preparation and broadcasting of programs; and the engineer's technical side. Although different in many respects, these types have a close relationship in radio.

Probably the most fascinating phase of radio for some is the engineers' nook. There are several large, black metal cabinets brimming with gadgets that bear names that mean

little to one not familiar with radio terms. An explanation of the apparatus, with its dials, tubes, amplifiers, etc., is highly complicated.

Although complicated and technical, the engineer and his apparatus are the "key" to broadcasting. The pleasant voice of the Esso reporter (regular newsbroadcast feature) would not go far but for the activity of the engineer's room equipment.

Note Followed

For the sake of getting a general idea of what the complicated apparatus is used for, it may be well to follow a musical note through the broadcasting process, beginning at the "mike" and carrying through to the antennae.

The note begins its journey toward the listener in the odd-shaped instrument called the microphone—an instrument for converting sound vibrations into electrical energy. The resultant output of electrical energy is so low in volume it requires a

RADIO STATION WWNC SPEAKING

(Continued From Page Three)

great deal of amplifying. From the mike, the note is fed into a pre-amplifier, and then into a network commonly known as the fader—this feature is comparable to the volume control on a radio receiver.

Each of the several microphones in the studio follow this same procedure to the fader. Thus, the engineer can operate the dials and produce a balance and blending of music and conversation. Often, the music is softened and the announcements superimposed—this is accomplished by cutting down the volume of music and leaving the announcing mike at a normal output.

The output of the mixing system proceeds into another amplifier, known as the program amplifier, which boosts the volume to the proper level for the transmitter. There still are two other stages of amplification in the transmitter, the output of the program amplifier first going to the speech amplifier tube and then to the modulator tube. By modulation, is meant to superimpose audio frequencies onto the carrier frequencies, by varying the amplitude of the carrier.

Leads Into Amplifier

This modulated stage then feeds into the final amplifier of the transmitter, which further amplifies programs to the assigned power of 1,000 watts. The output of this stage is coupled to the antennae, or radiating system, situated on the towers above the Flat Iron building studios.

An even frequency is maintained by the means of a crystal control—regarded as one of the more reliable methods in radio circles.

Operating the equipment requires a running load of 20 kilowatts during each of the 17 1/2 hours a day. This means the radio station consumes in five hours or so about the same quantity of electric current that is used in the average home in a month.

The radio equipment also is very expensive and highly delicate. One particular tube in the transmitter costs \$325. And the equipment has several tubes, too. The average life of one of these tubes, Chief Engineer Cecil H. Hoskins says, is 2,400 hours. Each tube is guaranteed for 1,000 hours. A supply of tubes values at \$1,000 or more is carried in the stockroom to insure radio broadcasting service at all times.

Network programs of the National Broadcasting company are received by WWNC on lines of the Southern Bell Telephone and Telegraph company. The principal task of the radio engineer here on network programs is to maintain the proper volume.

The task is not so simple in the some 25 daily local programs, however. In these, the engineer operates the "fader" for the mikes and phonograph turntables and provides the proper blending of music and speech. The engineer's room and the broadcasting studio are connected by a double glass window, which the announcer or performers can "talk" with the engineer by means of a "sign" language.

'Live Talent' Offered

Approximately 50 per cent of the local broadcasts offer "live talent" and there are numerous auditions for groups and individuals — the result being that the radio station's studio is usually a busy place. Each new month brings its crop of prospective radio singers and hillbilly bands.

Asheville's studio is comparatively

small—perhaps too small for the activity that takes place there. The one-room studio is connected with the engineer's room by means of the glass window and with the reception room by a door. Microphones are scattered about and there are a grand piano and turntables for broadcasting phonograph records. Hundreds of recordings are kept on file for the daily programs.

The studio equipment also includes the sound effects apparatus and a mechanism for recording programs on phonograph records either when they are broadcast or at any other time. These records afford the players and singers an opportunity to hear their own music.

The studio, the reception room and the engineer's nook are located in the penthouse atop the Flat Iron building. Officers are situated one floor below.

"Copy" for broadcasting is prepared in the offices by the program director, his staff of announcers and by the business staff. Each piece of copy is put into typewritten form and in many instances several copies are made for filing purposes.

On the wall of the program director's office is a set-up which furnishes at a glance "what's what on the radio" for every 15-minute period for the week. Each feature having a sponsor is labeled with a star. The office is equipped with a loudspeaker in order that the director can hear the "copy" as it goes out on the air.

The question has been asked many times: Why does Radio Station WWNC use so much recorded music instead of live talent? Program Director McIntosh answers the question this way:

"Recordings afford an opportunity for the local advertiser to present better music for a great deal less money than inferior live talent would cost."

Programs Expensive

Radio programs, in general, are rather expensive, particularly those appearing on networks. It is estimated that a one-hour program such as the one of Chase and Sarnborn costs the sponsors \$25,000 a week. This total represents a payment to the telephone company for lines, a large sum to participating radio stations, and salaries of artists.

WWNC is an affiliate of the National Broadcasting company and operates under a working agreement with the chain. The station here receives sundry educational and entertainment features offered by the NBC in exchange for commercial time on the air.

Associated with Mr. McIntosh in the production department of WWNC are Announcers Bernard Macy, Norvin Duncan, Bob Bingham, Michael Hinn and Miss Sue Porter, with Miss Clara Lathrop as the secretary. Working with Mr. Hoskins are Engineers Arthur Brimley, Morris Barton and James Lorick. Jamie W. McIver is the commercial manager, and James Young is chairman. Mrs. Stella Britt is secretary of the commercial department. Don S. Elias, vice-president of the Asheville Citizen-Times company, is actively in charge of the radio station.