

Chicago Turns to FM

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FM Station W59C (FM Outlet of Famous WGN in Chicago)



Left—Art Avery, WGN and W59C engineer makes a final inspection of the air filter in the new FM transmitter. Above—FM Station W59C helped to introduce FM by means of a popular demonstration before a group of local radio dealers. Right—Carl J. Meyers, Chief Engineer of WGN and W59C (left) and his Assistant, Clyde White, during installation of FM transmitter.

FREQUENCY modulation offers listeners a better system of broadcasting." That, in the words of Carl J. Meyers, chief engineer of WGN and its FM outlet, W59C, sums up the reasons for the growing popularity of frequency modulation broadcasting and at the same time gives an implied prediction of its future.

Meyers gave specific reasons for his praise of FM. He pointed out, as an important point in his case, that FM offers reception without interference, without static and without noise—reception unmarred by crashing roars when lightning streaks the sky or when a neighboring electrical appliance is switched on.

But more than all that, Meyers points out, FM offers reception with a naturalness and realism in the reproduction of music, speech and sounds beyond the capabilities of AM (amplitude modulation) broadcasting. This because FM is capable of reproducing the full range of sound, from 20 to 15,000 sound cycles per second.

All these FM advantages in the field of wide range tonal reproductions are accomplished by the employment of a different principle in transmission. In standard radio employing amplitude modulation the power at the transmitting antenna is varied in accordance with the sound in the stu-

dio, the frequency (number of sound cycles transmitted per second) remaining the same. The reverse is true for FM, and that is where the big difference comes in. In FM the power remains constant, whereas the frequency is varied over a wide range, in accordance with the sound from the studio. All this leads us to the question: How can these transmission benefits be applied to programming for the good of the listener? Estelle Barnes, program director of W59C, realizing that music will benefit most under these conditions, has scheduled a predominantly musical fare for Chicago and listeners in the 10,800 square miles serviced by WGN's FM station. A special FM orchestra has been formed for exclusive use on W59C. Stars of opera, radio and the concert stage have special "live" programs, and a library of high fidelity, vertical cut transcriptions has been collected for the W59C audience.

Taking cognizance of all these facts, Henry Weber, musical director of W59C and WGN, has predicted that music will always find a welcome among FM listeners.

"For the first time," said Mr. Weber, "we can reproduce the complete dynamic range of orchestral and vocal sound. And that means a great deal. For now that listeners can at last hear good music in all its naturalness, they will want more of the same."

The very high quality of FM transmission and programming has found a reflection in the sponsors airing programs on W59C. William A. McGuineas, sales manager of W59C and WGN, has pointed out that distributors of high class commodities and services have found a very responsive market among FM listeners. To illustrate his point he called attention to such W59C sponsors as the Marshall Field and company department store, the Ernest Ricketts and Hardings restaurants and the Monarch Finer Foods company, all quality merchandisers. This tendency, McGuineas predicted, would continue in the future.

FM, it is true, has advantages. This we can see from the above facts. But every listener must remember a few points if he is to reap the rewards of FM transmission. Meyers points out that although an antenna on the FM receiver is not absolutely essential, listeners living near the extreme range of seventy miles from any FM transmitter may improve their reception by putting up an antenna on their house top. A very short wire will do the trick, Meyers explained, with the length of approximately twelve feet offering the best results.

If these suggestions are followed, listeners will be hearing FM at its best. And that is radio at its best.

EDUCATIONAL BROADCASTS ON FM

Applications by the Board of Education of the city of Chicago, the San Diego (Calif.) Unified School District and the University of Illinois to engage in non-commercial educational broadcast service is indicative of the value of FM in developing the five high frequency channels reserved by the Federal Communications Commission for non-profit educational use.

An average school station can now be installed at the price of one classroom.

This rearrangement of the high frequencies to make commercial FM broad-

cast service possible has a distinct advantage in that the close proximity of the non-commercial educational bands and the new FM commercial bands makes it possible to adapt standard FM receivers to receive both types of broadcast. In other words, the FM receivers now being marketed are capable of receiving non-profit educational as well as the regularly sponsored programs.

However, the University of Kentucky had received a construction permit for a system to bring educational program service to some 50 mountain schools, available to

adults as well as students.

Subsequently, the Board of Education of the San Francisco Unified School District was authorized to use radio for instructional, administrative, supervisory and other functions through the medium of 13 studios in schools in that area, all connected with the central broadcast station KALW by leased wires.

More recently the Cleveland Board of Education, which serves more than 150 receivers in its municipal school system, received permission to change to FM.