

# W55M, MILWAUKEE, CALLING

*The FM Voice of The Milwaukee Journal*

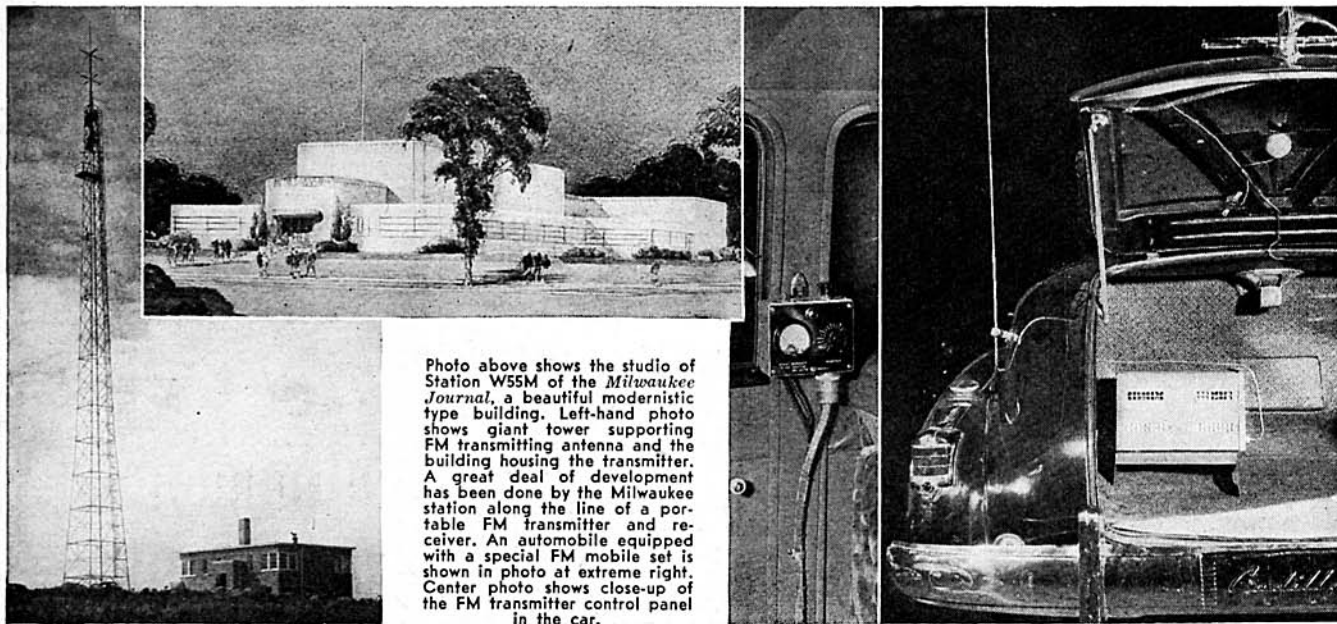


Photo above shows the studio of Station W55M of the Milwaukee Journal, a beautiful modernistic type building. Left-hand photo shows giant tower supporting FM transmitting antenna and the building housing the transmitter. A great deal of development has been done by the Milwaukee station along the line of a portable FM transmitter and receiver. An automobile equipped with a special FM mobile set is shown in photo at extreme right. Center photo shows close-up of the FM transmitter control panel in the car.

## W55M's Technical Equipment

D. W. GELLERUP  
Chief Engineer WTMJ, W55M, WMJT

THE W55M Transmitter is a 50 kilowatt model built by Radio Engineering Laboratories of Long Island City, New York. It employs the new type phase modulator giving the transmitter a modulation characteristic of a frequency response that is flat from 30 to 15,000 cycles with a variation of plus or minus of 1/2 db. Distortion is in the neighborhood of 1% over the entire frequency range.

Frequency stability of the transmitter, due to a rather unique Frequency Controlled Circuit, is well within the limits required by the Federal Communications Commission (approximately 200 cycles). Output of the transmitter is fed to the base of the tower in two three-inch concentric lines. In a coupling house at the base of the tower is phasing equipment. From this equipment eight 1 1/8 inch concentric lines run 220 feet up the tower to a two-bay turnstile, this being an antenna gain of one.

In order to cover what is described as the Milwaukee trading area, it will be necessary to radiate approximately forty kilowatts from the antenna. This means an input of between forty-five and fifty kilowatts to the transmission line. The antenna is so arranged as to allow for the increase of the number of bays at a later date thus allowing an increase of antenna efficiency if this is found desirable.

The location of the transmitter is on a hill 1260 feet above sea level. The major portion of the city of Milwaukee is between 600 and 650 feet above sea-level so that the antenna proper is approximately 600 feet above the average level of the city. We plan to feed this transmitter from studios using either a 15,000 cycle telephone loop or a studio-to-transmitter radio link. These two circuits will be interchangeable at a moment's notice.

The amplifying equipment at the transmitter is capable of handling frequencies from 30 to 17,000 cycles with practically no distortion. Studio equipment has been re-

vamped to give us a 15,000 cycle characteristic with noise level of better than minus 60 db. With completion of the studios at Radio City next summer, and with the addition of better acoustic characteristics and closer noise tolerances, the overall characteristic from studio out through the transmitter should be improved appreciably.

What is believed to be the first thoroughly practical pleasure car FM receiver has been installed in the car of Walter J. Damm, General Manager of Radio for the Milwaukee Journal, operating W55M and WTMJ.

The outfit consists of the receiver proper, speaker, antenna, and control unit. The antenna is a vertical full quarter wave of the telescopic type fed to the set proper by a co-axial cable. The receiver is fixed to the W55M frequency by crystal control. The control unit contains a signal strength indicator calibrated in micro-volts per meter and a sensitivity control. The main unit of the receiver is installed in the luggage compartment of the car with the speaker behind the rear seat. The control unit is within easy reach of the driver.

## FM Programs Important

WALTER J. DAMM  
General Manager of Radio  
THE MILWAUKEE JOURNAL

ALTHOUGH The Journal Company has been operating a standard broadcasting station in Milwaukee since 1925, we look upon FM as a new entity which will eventually dominate the radio scene.

Our convictions with regard to programming are, briefly, as follows:

A. If the public is going to buy FM sets, it needs an incentive—therefore, FM programs must be distinctly worth-while and fill a genuine need.

B. It follows that FM program schedules must be entirely independent from AM schedules. FM's advantages of high fidelity reproduction and freedom from static are, alone, not enough in most cases to make people switch from AM to FM.

C. FM should be programmed to meet

the radio desires of the discriminating listener who enjoys good music, and both sustaining and commercial programs should utilize the high fidelity reproductive advantage of FM to the utmost. In this respect, we believe that there is a place for electrical transcriptions, as well as live talent, on FM programs. Experience has shown that the new high-fidelity electrical transcriptions now available to the broadcasting industry are remarkably well adapted to FM. They will provide the means of presenting famous artists and musical groups which could not otherwise be heard over an individual FM station until the American Network begins operation.

D. While music should be the basis of FM schedules, we recognize that drama, news special events and children's programs have their place. However, every effort will be made to place such programs where they best fit into the daily life of the listener.

E. We believe that daily luncheon and dinner concerts of uninterrupted music should be scheduled, as these two periods will make it possible for the listener to enjoy the benefits of FM to the utmost. The dinner concert, particularly, should fill the wishes of many set owners who have hungered for a program of music and not one made up of 15-minute units, ranging from children's programs to dramatics, sports and news.

F. We believe that by concentrating on music during the afternoon, FM will attract set owners who do not care for the continuous procession of dramatic shows now on the air. Herein lies an opportunity for the FM broadcaster to awaken interest in daytime radio on the part of those set owners who are now a dead loss so far as AM broadcasting is concerned.

G. Lastly, we believe that the FM broadcaster should always model his programs according to the listening public's demands and should not permit himself to be swayed from his set course by the idiosyncrasies of the advertiser and the advertising agency. Steadfast adherence to a policy based on genuine public service can open up a listening field of unbelievable proportions.