

FM BOOM

FM Is Now in a Major Ascendancy

By HUGO GERNSBACH

FREQUENCY modulation made notable progress before World War II. It has now—in the postwar period—reached boom proportions. This is true of both FM transmitters erected and contemplated, as well as in FM receiver production.

The latest figures made public by the FCC give the following picture as far as FM transmitting stations are concerned:

FM stations operating as of June 1, 1947, total 223. As of June 1 there have been granted 568 construction permits for transmitters, which reasonably may be expected to be in operation before very long. This gives a grand total of 791.

Against this we have 1,239 licensed AM transmitters as of June 1, and 522 AM stations under construction, or a total of 1,761.

To keep abreast of all the new FM stations, which are now mushrooming all over the countryside, the radio set industry has striven valiantly to keep up with the FM receiver demand, yet so far it has not been too successful. The demand continues to outrun production.

Last June the Radio Manufacturers' Association predicted that total radio production may be more than 15% under the expected 1947 output.

The RMA looked for a 1947 output about equal to that of last year's 15 million sets. Yet, during the past few months the industry was producing at the rate of 18 million sets a year. The trouble, however, is that the radio makers find that they cannot sell all the sets they make, particularly in the AM classification.

FM receivers are selling at an accelerated rate over AM sets, and it is quite likely that there will be no decline in FM output which reached a high of 112,000 sets in April, according to the RMA.

A spokesman for the RMA also stated "Manufacturers who formerly scoffed at FM are now eager to enter the field with its new market potentialities. However, FM sets are not easy to make and some manufacturers will not reach planned production goals."

So far the radio industry itself has not told, by publicity or otherwise, the bewildered public just what the AM *vis-à-vis* FM radio situation means.

The average set buyer nowadays knows of the existence of FM mainly because the radio *dealers* educate the public to it. But the average buyer is puzzled as to the future of radio reception as a whole.

They want to know the answer to the question "Is AM radio here to stay or is it being supplanted by FM?" Then there is also the extra puzzle of television, thrown in for good measure, which further bewilders the public.

It is easy to understand why AM sets are not selling as well as FM sets nowadays because anyone listening to the much better reproduction of FM sets would almost automatically choose an FM over an AM receiver. The nearly staticless reproduction—without background noise—naturally impresses the public.

How soon will AM become obsolete in this country? That is a difficult question to answer, one guess being as good as another. It would be futile to predict how many years it will take to accomplish this, but one thing seems certain: AM will fade slowly and gradually out of the picture. There seems little doubt that today we are in a transition period. The tremendous upswing in FM transmitters certainly points the way to the future of radio broadcasting in this country.

There are those who will maintain that we will always have AM. It is entirely possible that there will be a number of such transmitters still operating for very many years to come in this country, but certainly the trend is unmistakably toward FM.

In the meanwhile manufacturers of radio receivers are trying to straddle the fence by serving the two fields, i. e., in building combination AM-FM receivers so that both types of reception can be had in one receiver.

Unfortunately the consensus of opinion is that so far such combination receivers—at least the smaller table models—have not worked out too well. There are many technical difficulties to be overcome, and while in due time such combination receivers will be produced successfully, with few exceptions at the present time the results have not been too good.

Despite the fact that FM receivers are more expensive than AM receivers, the public—always eager to get the latest and the best—prefers the more expensive FM sets. FM receivers eventually will sell for less than they do nowadays, but not until radio manufacturers become more expert in the intricacies of their manufacture.

In the not too distant future, FM sets probably will sell at a lower price than present-day AM sets. That stage has not yet been reached.

A somewhat similar situation prevails in automobile FM receivers, which so far are not in large production, and portable FM sets, which are still in the experimental stage. Many technical problems have to be solved to make such types possible, but they will be solved.

With automobile receivers there are, of course, some disadvantages to FM. With FM range limited to about 25 miles from the transmitter, anyone taking a long automobile trip will have to switch from station to station as he progresses along the road. Thus, during a hundred-mile trip, switching or tuning to 4 different stations will be necessary. This may or may not be a great disadvantage. It might even be pointed out that many AM transmitters become weaker at the 25-mile range too, except for the much more powerful transmitters.

As for portables and pocket FM radios, both these seem to be in the future. So far only experimental models have been evolved and much engineering work remains to be done in that class.

The country now has one of its cyclic radio booms—this time in FM—which conceivably may last until the end of 1948 and perhaps longer.