

## FM CONTINUES EXPANSION

The police and fire departments of Milwaukee announced last month that they were planning a total of 109 two-way FM units to provide the most efficient communications system available. Allotment of necessary materials was made recently by the War Production Board.

### News From FM Centers

The third FM station to go on the air since last November, W49PH, of Philadelphia, is owned and operated by WIP. Clifford Harris, chief engineer of WIP, has been named manager of the FM outlet. Also on the air regularly are W53PH (WFIL) and W69PH (WCAU).

Arrangements were completed last month permitting WPRU, the intramural broadcasting system of Princeton University, to pick up programs of W53PH for three hours daily and relay them to student radios. Similar permission has been extended to collegians by many FM stations in different parts of the country.

### Yankee Network

FM listeners in the six New England states are finding numerous and unusual musical offerings begun last month over the Yankee Network's W43B, of Boston, and W39B, of Mount Washington, N. H. Heard exclusively on FM, the schedule includes musical programs picked up from W43B-W39B by the Intercollegiate Network and relayed over campus intramural radio systems to New England college students.

### 12-Mile Beam Link

Spanning a 12-mile gap, W47A last month completed installation of a special beamed radio system that carries its programs from the W47A studios in downtown Schenectady up to the transmitting site in the Helderberg Mountains. The installation uses a 25-watt transmitter in the city and a special crystal-controlled receiver at the opposite end of the 12-mile circuit.

Directional antennas for both transmission and reception provide perfect service at all times, thus eliminating the need for telephone wire connection between studios and transmitter, the usual practice in broadcasting. The relay operates in the 330 to 342 megacycle band of the radio frequency spectrum, and is the first such studio-transmitter link authorized at that micro-wavelength. Similar links on lower frequencies (notably the 43-mile circuit employed by W43B) have been operating with success for some time.

## MORE FM STATIONS

Despite curtailments on the granting of further FM station construction permits and WPB restrictions on the procurement of basic materials for building stations, several more FM outlets were able to get on the air last month.

These were transmitters which had been almost completed and had much of their essential equipment already installed and therefore did not fall under the official Washington ban. Outstanding is W41MM, the giant mountain-top FM station on Clingman's Peak in North Carolina, which is licensed, when at full power, to cover almost 70,000 square miles in seven states in the South. Another newcomer was W49PH, in Philadelphia. Other stations in Philadelphia and Fort Wayne are also expected on the air soon.

Power increases and improved antenna systems were also possible for a number of



Miss Marjorie E. Allen, first woman transmitting engineer, serves also as control engineer and announcer at FM station W47NY.

the FM stations. Several other FM licensees, unable to complete the full power installations authorized by their original construction permits, were expected to make use of reduced wattage and temporary antennas for the duration of the war.

Although no more FM receivers—or civilian receivers of any kind—are now being manufactured the public will still find a number of FM models on display in stores and, through a process of voluntary rationing to dealers, some brands are likely to be available until late next fall. Public demand, however, is running high and consumers usually face long delays before their new FM sets can be delivered. The national total of FM receivers in use is now reckoned at somewhere between 350,000 and 400,000 units.

There has been no indication of any plan on the part of FM broadcasters to discontinue or curtail their service because of the war. In fact preliminary returns of a survey being conducted among FM station owners by the Zenith Radio Corporation of Chicago point to "a generally optimistic tone." Thus far only one FM outlet in the country has reduced its daily broadcasting schedule—from 18 to 12 hours—because of a shortage of engineers.

Although no further construction permits can now be granted by the Federal Communications Commission for FM transmitters in broadcast service, a total of 63 FM stations have thus far been authorized to operate commercially. Of these, 27 are now on the air. Some 50 applications for construction permits are still pending and must remain so until peace returns.

## HOUSTON JOINS FM CHAIN

The latest addition to the growing organization of the American Network, Inc., FM's first chain of stations, is the Houston Printing Corporation, publisher of the "Houston (Texas) Post" and applicant for an FM station in that city.

The American Network now has eleven leading FM groups on its roster.

## WOMAN GETS W47NY POST AS TRANSMITTER ENGINEER

Woman's role in radio has been augmented considerably by the news that Marjorie E. Allen has become a transmitting engineer, the first and possibly only woman holding this position in the United States. A sister of Harold Allen (W2MWV), in private life a Wall Street broker, Miss Allen operates the transmitter at W47NY, the Muzak Frequency-Modulation station, 70 Pine Street, New York, N. Y.

Miss Allen, a pupil of John G. Hart, of the American Radio Institute, passed her first Federal examination in less than five weeks. Diligent study enabled her to obtain a 2nd-Class Radiotelegraph license, the highest license issued by the F.C.C. to any applicant not having had six months public station experience. One month later she received her 2nd-Class Radiotelephone license.

When Walter Graham, Chief Engineer of W47NY inquired for a student having the necessary qualifications, Miss Allen's name was offered. Mr. Graham was skeptical. "After all," he said, "the position calls for a transmitting engineer, not a control-room engineer." Yet Miss Allen was accepted and is now serving as Transmitting Engineer, Control-Room Engineer and Announcer at W47NY.

The radio field for women is gradually expanding, not only for technical work but also for radio operators. Thus far, no authorizations have been made for women radio operators on board ship, but the future will probably see many women radio operators in point-to-point stations, the land stations which transmit radiograms from one city to another within the United States and to non-Axis countries.

## SIGNAL CORPS NEEDS MEN

There is an urgent need for several hundred electricians and radio mechanics at the Signal Corps Radar Laboratory, Belmar, New Jersey. The salaries range from \$1800 to \$2600 per annum in accordance with the length and quality of the applicant's experience. Electricians should have industrial experience.