## WAY DOWN YONDER IN NEW ORLEANS

RCA 50-D Installation Gives Added Coverage in Southern States

By J. D. BLOOM Chief Engineer, WWL

WL, the radio station of Loyola University, New Orleans, first took to the air March 31, 1922, being the first radio station in the State of Louisiana. At that time it was operating on a power of only 5 watts, gradually increasing through the years until on October 2, 1932 it went on the air with what was then the latest in RCA equipment in a 10,000 watt station operating on a shared channel.

In order to give greater service to the public of the Gulf South, much time and money was expended to rearrange the broadcast spectrum in order to facilitate WWL operating on full time on the same cleared channel of 850 KC. Shortly thereafter WWL put in an application to increase their power to the existing maximum of 50,000 watts. This permission was granted almost three years later in December 31, 1937.

## Location

One of the most outstanding consulting radio engineers in the country, was called in to conduct a site survey for the new station, finally deciding upon a location on the border of Lake Pontchartrain, approximately eight miles west of the city limits. This site proved an increase in field intensity from 30 to 60% in different directions. However, the location was on the edge of a peat bog, making construction problems very difficult, racking the minds of the most outstanding construction engineers New Orleans had to offer. The final result was, that a building has been designed and constructed, supported by 55 piles, each pile 50 feet long, resting on a clay strata with a known thickness of 10 feet. The tower



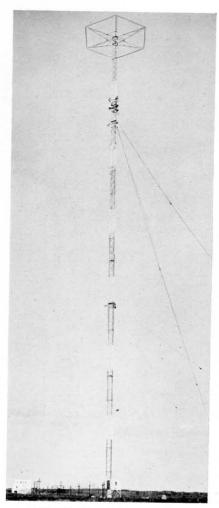
W. H. Somerville, General Manager.

base rests on 20 piles with anchorages utilizing 13 piles each, 9 of which are vertical and four driven on an angle to counteract the horizontal strain impressed upon the anchorages by the guy wires of the tower.

Due to the fact that the location is directly on the air line between New Orleans' famous Shushan Airport and Beaumont, Houston and points West, it was necessary to shorten the tower from the desired height of 615 feet to 400 feet. To compensate the loss of height a special tower was designed utilizing every latest known principle of modern radio engineering including an insulated point 60 feet from the top and a "hat" on the top, 60 feet in diameter. Extremely high winds being occasionally encountered in this section of the country, additional insurance was procured by designing the tower for a 130 mile gale, which is much greater than any record of the weather bureau in Washington.

In purchasing a transmitter, WWL chose the RCA high efficiency output circuit transmitter which includes the most

modern streamlined appearance. It has the additional facility of being operable on 5 KW in case of trouble in the last stage or, in case of complete power failure by using an auxiliary motor generator in the building. As an additional precaution against any remote possibility of floods, the operating floor of the building, as well as the base of the tower, are some 9 feet above the surrounding terrain. The building, having a solid concrete front wall, is capable of withstanding any wash that may be caused by the waves coming in from the lake some 500 feet in front.



WWL's Top Hat Antenna.

## WWL COVERS THE LOWER MISSISSIPPI VALLEY AND THE GULF REGION

