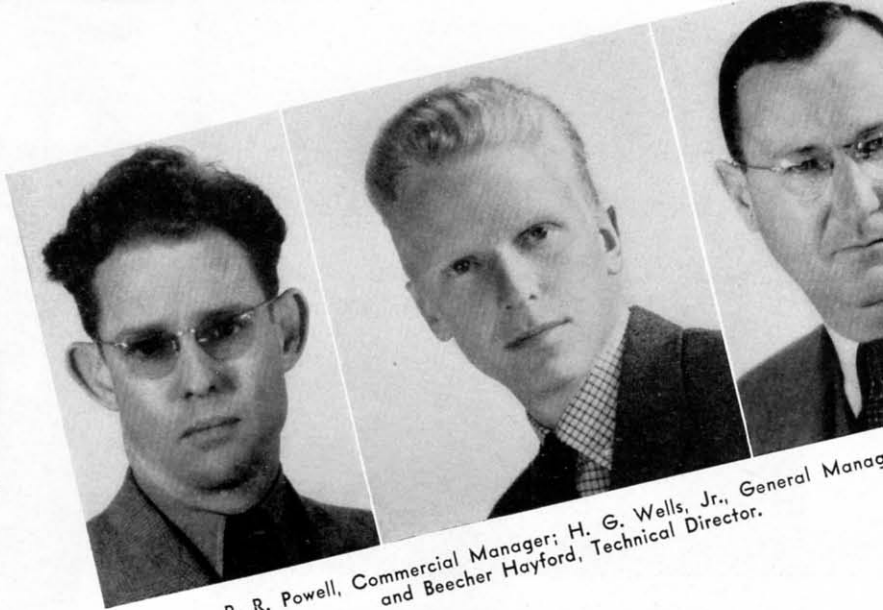


# WCOA

Pensacola, Fla.



R. R. Powell, Commercial Manager; H. G. Wells, Jr., General Manager and Beecher Hayford, Technical Director.

Spell out WCOA and you have "Wonderful City of Advantages." Look for that intriguing city on a broadcasting map and your finger points to Pensacola, Florida. Turn your dial to the same combination of letters and you will find that the station is living up to its call by taking advantage of the latest developments in broadcasting technique as well as a choice selection of network and local programs.

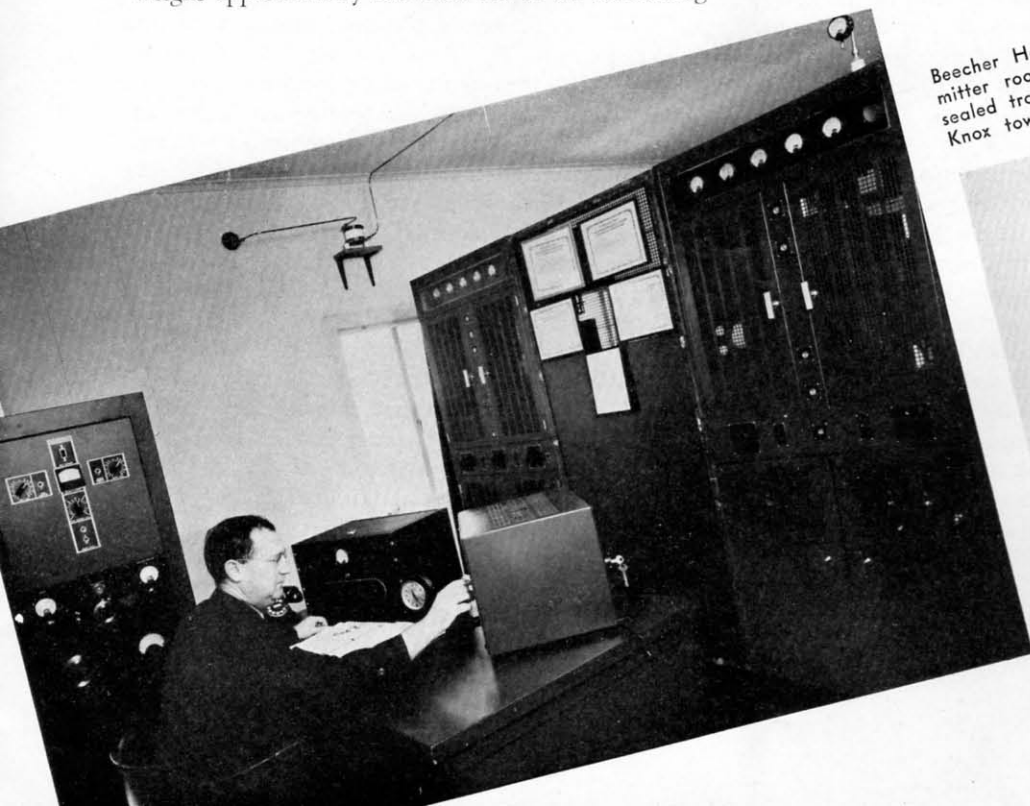
WCOA celebrated its twelfth birthday on the air recently with an increase in power to 1,000 watts and the inauguration of a new transmitter plant located on the edge of Pensacola Bay, one mile from the city's business center. Particularly difficult problems had to be met in planning and erecting a broadcasting station in a vicinity where there continually lurks the threat of high winds.

Therefore, WCOA's new building is unique in design. Walls, floor and ceiling are of reinforced concrete and the entire structure can be hermetically sealed. The building is 25 by 30 feet and weighs approximately 200 tons. All of the reinforcing

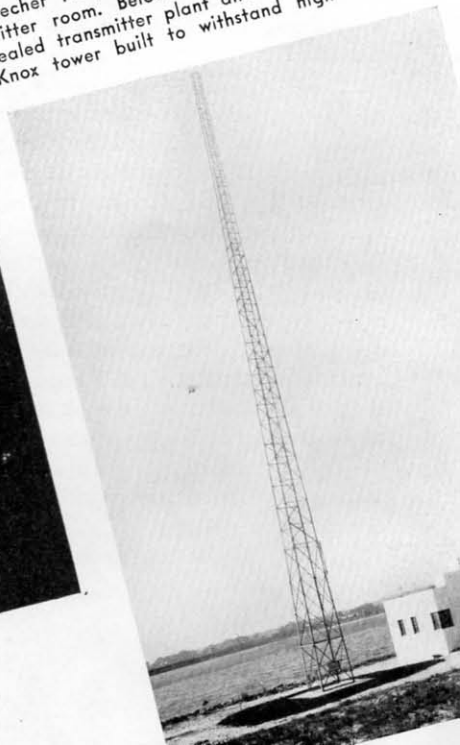
steel is spot welded and this mass of steel in turn is tied into the ground system of the transmitting plant. Due to proximity to the water it was necessary to keep pumps running continually during the construction of the reinforced concrete piers to prevent flooding by tide water.

WCOA's site is 18 inches above sea level—the floor of the building being three feet higher than the highest recorded tide. The exterior of the building is a smooth white finish with black trim. Interior walls are treated with white temlock, a decorative material possessing insulating properties. The floor space is divided to provide for a large room for transmitter operation, a bedroom, bath and store room.

WCOA's antenna is a Blaw-Knox 179-foot grounded vertical radiator, shunt fed. Since the tower had to be erected in sand, and with that old bugaboo "Hurricane" in mind, it was decided to use  
*(Continued on Page 24)*



Beecher Hayford at the controls in transmitter room. Below: WCOA's hermetically sealed transmitter plant and 179-foot Blaw-Knox tower built to withstand high winds.



## **WIP Rings up Service Record with 23A Consoles**

**A** total of more than 25,000 hours of operation without a single failure is the record established by four Western Electric 23A speech input equipments at Station WIP, Philadelphia. One of these units has been in operation 18 hours daily for over 10,000 hours. The other three have to their credit more than 5,000 hours each.

Installed as part of an \$86,000 expansion program undertaken by WIP at the end of 1936, the 23A's were selected, according to Technical Supervisor Clifford C. Harris, after careful consideration of all types of speech input equipment. Since space was at a premium, the compact assembly and absence of inter-bay wiring were important factors. The flexibility of these "consoles" surpassed anything previously used at WIP. These features, as well as the high fidelity response, influenced the purchase of the four units, among the first to be put into regular operation.

Some slight modifications were found desirable to meet the particular requirements at WIP. The output key was replaced so that when the master control cuts the channel through to the studio control, current is automatically fed through the 23A output key to light a green signal in the studio control, studio and the master control. When the studio control engineer operates his output key (position A or B) three operations take place: all green lights change to red, the amplifier terminating load is removed and the 23A is connected directly to the master control repeater and the outgoing line.

Some provision for emergency operation was also considered necessary in case the main amplifier or power pack failed. Two of the four remote line keys (lower left corner of 23A) were separated electrically from the other two and placed in multiple

with the microphone inputs to the first and second pre-amplifiers. These switches, when operated, connect two microphones directly to the master control, where suitable pre-amplifiers are available for emergency operation.

The monitoring amplifier is provided with a three-position key as standard equipment. One position is connected to the amplifier output (studio), another to the "up" position of the two remaining remote line keys and the third to an external switch panel which permits the studio control engineer to monitor any one of the four outgoing lines.

Under the guidance of WIP's President, Benedict Gimbel, Jr., the entire expansion program was supervised by Clifford Harris.

## **WCOA, Pensacola, Florida**

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a concrete base 16 by 16 by 6½ feet, reinforced at three stages with steel. The ground system consists of a double thickness of copper screen 16 feet square cast 3 inches below the top of the concrete foundation. From this screen 360 radials run out to a 40 foot collar made up of a 4 inch copper strip, and 180 radials extend 200 feet from this copper band, buried to a depth of 8 to 12 inches and terminated on copper ground rods the bottoms of which reach salt water.

Tower illumination is facilitated by the use of the grounded radiator, no special transformer or radio frequency chokes being necessary. The simple lighting feature of the grounded radiator is only one of the many features of this new antenna. The ease of coupling, and freedom from lightning hazard make this type very desirable.

The transmitting equipment consists of a Western Electric 304B transmitter, a 110A program amplifier, 23A speech input equipment, dynamic microphones, and other associated equipment.

WCOA's studios, located in the San Carlos Hotel, are said to be among the most beautifully decorated in the South. The walls are acoustically treated with temlock and the floors thickly carpeted to help soften sound.

Among the personnel are Henry G. Wells, General Manager; Royce R. Powell, Commercial Manager; Jimmy Hendrix, Program Director; Raymond Rogers, Musical Director; Beecher Hayford, Technical Director; G. E. Mead, Staff Engineer. Hayford is one of the old timers in radio, having been a ship's operator back in the days of "wireless." He has been with WCOA for the past nine years. Previous to this time he spent several years installing short wave stations in South America.

During the time the new transmitting plant has been operating hundreds of gratifying reports have been received, amply justifying the improvements made by WCOA.



One of the four 23A Speech Input Consoles used at WIP, Philadelphia.