

Columbia Is Telecasting!

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This was the title of an article in the Sept.-Oct. 1931 issue of *Television News*, announcing the opening of experimental television station W2XAB on Tuesday, July 21st of that year. The transmitter and studio were located on the 23rd floor of the Columbia Building, 485 Madison Avenue, New York City.

The television system used a 60 line, 20 frame per second (1200 rpm) mechanical scanning camera. The picture was broadcast on 2750 kHz with a power of 500 watts. Sound was separately transmitted on 6120 kHz.

The scanning, pickup, and transmission gear was supplied by RCA and installed by RCA engineers. One of them, the late John Paul Smith, was originally a GE

engineer in Schenectady. I had the privilege of meeting him some years ago.

John explained that "We made three sets of this 60 line mechanical scanning equipment. This is the equipment that started CBS in TV broadcasting." He went on to say that the gear was built in the RCA development laboratory on the 6th floor of Building 2 in Camden, New Jersey. "In those days," John went on, "all the research, development, and production was done by the engineer. Technicians were not available to do the dirty work."

The only power tool they had in their lab was a small drill press.



Natalie Towers with the Columbia telecasting "camera."

They would drill the 3/16 steel panels and carry them over to Building 8 to be sprayed black before being assembled and tested back in Building 2. In this manner, he and colleague J. M. Morgan built the racks of amplification and transmission equipment.

A Peerless arc projector provided a high-intensity light source that was directed through a 60-hole scanning disc and lens which was assembled by Merrill Trainer and Joe Briggs. (Amazingly, I have the same model Peerless projector which works together with a 60 hole Daven disc and a relatively modern Canon 50mm F 1.2 lens!) Trainer also supervised the construction of the photocell assembly. It was a

copy of a design used by GE in their early TV tests in Schenectady.

Mayor Jimmy Walker inaugurated the official beginning of transmission as he lifted a curtain to expose the photocells. The photo shows Ms. Natalie Towers, the first woman to be signed exclusively for television appearance, in front of those photocells.

The Wellesley Magazine (April, 1931 issue) proudly noted that, "Perhaps our most nationally known member at the present moment is Natalie Burggraf Towers who has been the first person cast as a real type for television. Her picture has been published in 2000 newspapers. Natalie's story sounds like a novel. Before this offer came she has been living on \$ 0.10 a day, then was offered a \$500 a week job which she gave up for this regular radio broadcasting work."

Prior to the official opening of broadcasting, tests verified clear reception at such distant cities as Baltimore, Boston, and Schenectady. Once on the air, according to the *Television News* article, the station broadcast between the hours of 2 and 6 pm and 8 and 11 pm.

CBS Television has come a long way. In fact, some years ago they acquired my old company, Westinghouse.