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Full Sized Replica Of Jansky Antenna Completed

Construction of a full-sized replica of the original Jansky Antenna has been completed at Holmdel and will be erected at the National Radio Astronomy Observatory in Green Bank, West Virginia, later this year.

The Observatory, a 2,500-acre tract located in the remote Deer Creek Valley about 80 miles west of Staunton, Virginia, is financed by the National Science Foundation and administered by Associated Universities, Inc. It is dedicated to the furtherance of studies in radio astronomy.

The late Karl Jansky is recognized as the originator of the science of radio astronomy. When Jansky joined Bell Laboratories in 1928, he was assigned to study static interference on short waves that were to be used for trans-Atlantic telephone communications. While listening for and recording crackling noises from thunderstorms, he discovered radio noises that were determined to be of extra-terrestrial origin.

For thousands of years, astronomers could observe the universe only through the "window" of visible light that was radiated by the sun and stars. Jansky had discovered a new "electromagnetic window," through which scientists could gain much new knowledge about the cosmos by tuning in on radio emissions from outer space.

Jansky's discovery was made at Holmdel in 1932. He published his historic findings the following year and they received wide acclaim in the scientific community.

The original Jansky Antenna which received these radio signals from outer space was crude by present-day standards. Based on the design principles of the Bruce Antenna, it was 95 feet long and consisted of a mass of wood support beams which held up a series of metal tubes. The entire structure was mounted on four Ford truck wheels for easy rotation.

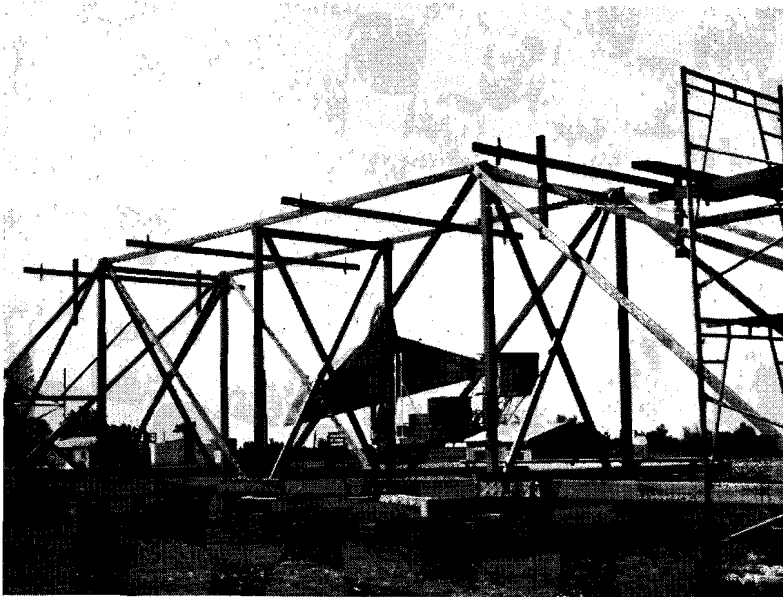
Jansky first erected this structure in 1929 in Cliffwood, New Jersey, about ten miles north of the present Holmdel Laboratory. A year later, it was disassembled and moved to Holmdel where it

was reassembled just southeast of the new building. In 1944 the structure was completely dismantled. The only part of the original apparatus in existence today is a small gear reducer.

A. C. Beck, a member of the Guided Wave Medium Research Department and a contemporary of Jansky when he was at Holmdel, was chiefly responsible for collecting information needed to construct the replica. The replica was built by members of the Crawford Hill Carpenter Shop who worked from some of Jansky's original notebooks, drawings, and monthly progress reports.

The replica will be shipped in parts to Green Bank where it will be reassembled and erected at the Observatory's entrance gate.

The National Radio Astronomy Observatory already has recognized Jansky's contributions to radio astronomy. One of its buildings is named the "Karl Guthe Jansky Laboratory."



A full-sized replica of the original Jansky Antenna begins to take shape at the top of Crawford Hill at Holmdel.