THREE TEK EMPLOYEES, all radio hams, stand by the large antenna they made to receive radio waves bounced off the moon. They are, from left, Fred and Susan Telewski, and Wes Hayward. Susan machined many of the antenna components, and it is believed she is the first woman to establish radio contact via the difficult earth-moon-earth route.

Tek hams bounce radio waves off moon

Three Teks in a recent experiment showed it is practical for ham operators to use the moon as a passive reflector of radio waves in communicating on this hemisphere.

Fred (Spectrum Analyzers) and Susan (SPS Engineering) Telewski, and Wes Hayward (Spectrum Analyzer Engineering) on November 23 aimed a radio beam at the moon, and called the Stanford Research Institute Radio Club (WA6LET) in Morse Code. Within seconds, they received a response, the letter "R" in code.

Later they switched over to single sideband voice communications, and conversed for several minutes. The Tek trio used a Tektronix 7L5 spectrum analyzer to monitor signals returning from the moon. With this information, they determined the signal-to-noise ratio and path attenuation fluctuation.

Fred said they used the Tek 7L13 spectrum analyzer for adjustment of the transmitter. The 7L13 is the only instrument available capable of analyzing the output of a 432 MHz single sideband transmitter, he added.

At Palo Alto, the Stanford group used the university's 150-foot radio telescope to receive signals. The experiment demonstrated that ham operators can use the moon as a mirror in space to establish two-way radio communications on earth.

In later experiments the Tek trio hopes to make refinements to allow contact with stations not equipped as well as the Stanford station.

Fred (WA7TZY), Susan (WB7BST) and Wes (W7ZOI) are all members of Tektronix Employees Radio Amateur Club (TERAC). Assisting with their project were Deane Kidd (Engineering) (W7TYR), Jack Harr (Model Shop), Mike Metcalf (MC Engineering) (W7UDM), Mike Coughlin (Model Shop) and Bill Beran (CRT Engineering).
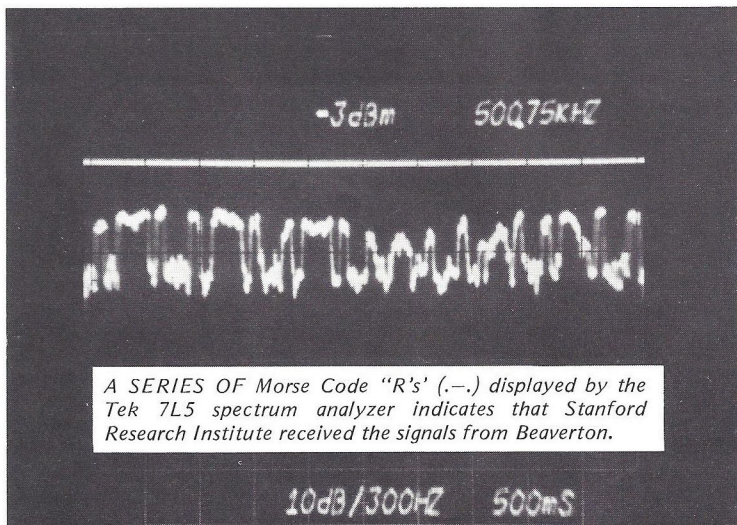
A SERIES OF Morse Code "R's" (.–.) displayed by the Tek 7L5 spectrum analyzer indicates that Stanford Research Institute received the signals from Beaverton.