

# M. 'Walt' Maxwell

## 'Biography'

M. Walter Maxwell, W2DU, (ex; W8KHK, W8VJR, W4GWZ, and W2FCY) is an ARRL Technical Adviser (TA) in the specialty field of antennas and transmission lines. Walt was **born** in Daytona Beach, Florida in **1919 (91 years old)**, and grew up in Mount Pleasant, Michigan.

A life member of both the ARRL and QCWA, and a Fellow of the Radio Club of America, he was **licensed** as W8KHK in 1933 and has been licensed continuously ever since (**77 years**). He was graduated from high school and entered Central Michigan University in Mount Pleasant in 1935, earning a **BS degree in mathematics and physics**. He played in professional dance bands, and specialized in auditorium and outdoors sound systems until early 1940. Then Walt joined the announcing and technical staff of WMFJ, Daytona Beach, and was assigned the call W4GWZ. Walt also copied Press Wireless News Service from WCX/WJS, 38 WPM CW, while at WMFJ.

[With the FCC from late 1940 to 1944, his professional antenna experience included participation in building antenna farms at FCC monitoring stations in Hawaii and Allegan, Michigan.](#) Then until 1946 he was a U.S. Navy instructor of Aviation Electronic Technicians at Corpus Christi, Texas. While in the Navy he played trumpet in the big band of Alvino Rey, W6UK. From 1946 to 1949 in his own electronic and mobile-communications business, Walt did broadcast-engineering consulting, and was chief engineer of WCEN, Mount Pleasant, having engineered and built that AM station in 1948.

In 1949 Walt joined the RCA Laboratories (the David Sarnoff Research Center) in Princeton, New Jersey as an engineer, later becoming a charter member of its new Astro-Electronics Division in Princeton. From 1960 until retirement in 1980 he was in charge of Astro's Space Center Antenna Laboratory and Test Range. [More than 30 earth-orbiting spacecraft utilize antennas that were designed solely by Walt, which include ECHO 1 and all early TIROS, ESSA, and NOAA weather satellites.](#) He assisted in the design of many other spacecraft antenna systems, including the data-link antennas on NOAA's TIROS-M and TIROS-N, and on RCA's SATCOM communications satellites. He also performed design work on the Search and Rescue (SAR) system antennas flying on TIROS-N, which are used worldwide for relaying signals from emergency locator transmitters (ELT) aboard aircraft in distress.

He assisted in designing the moon-to-earth TV dish antenna used on the moon on Apollo's lunar rover--the moon buggy. (See the story and photos at end of Chapter 24.) He set up its test-range facilities and performed all of its pattern, gain and impedance-matching measurements. He engineered ground-based antenna systems at the Kennedy Space Center, Cape Canaveral, for pre-launch communication with the TIROS and RELAY spacecraft while on the launch pad. In addition he had total engineering responsibility for the receivers, transmitters and antennas of the five ground stations spread across the US, used in Project SCORE, the orbiting Atlas rocket that broadcast President Eisenhower's "Christmas Message from Space" in December 1958.

Walt has held the Extra Class license since 1967 (43 years), and the call sign W2DU since 1968. Every full-time position in his career resulted from association with Amateur Radio. He has served as antenna consultant for AMSAT, as a member of FCC's advisory committee for WARC-79, and as trustee for K2BSA at National Headquarters, Boy Scouts of America, before they moved from North Brunswick, NJ to Texas.