

## Edwin King Stodola



Edwin King Stodola, known as “King”, was born on October 31, 1914 in Brooklyn, NY. His parents – Beatrice King Stodola, an elocutionist and dramatic reader, and Edwin Sidney Stodola, a Juilliard-trained concert pianist – must have been surprised at their oldest son’s scientific bent but encouraged him to pursue his interests.

Following his secondary education at Brooklyn Technical High School, Stodola graduated from Cooper Union with a Bachelor of Electrical Engineering in 1936 and later earned a Professional Degree in Engineering from the same institution. After an entry-level engineering job in the War department in Washington DC assigning radio frequencies for Army facilities, Stodola jumped at the chance to obtain a more research-oriented position in signal detection and radar development at Fort Hancock in Sandy Hook, NJ in 1941. Within months, the Japanese bombed Pearl Harbor and his work was transferred to Camp Evans. His initial wartime assignment was to optimize the radar equipment then in use, the SCR270, to improve detection of moving targets low on the horizon (such as the kamikaze pilots who had figured out how to fly “under the radar”) by filtering out background clutter. Later he was involved in the development of the next step in the series, SCR271. This work made a significant contribution to the Allied victory in World War II. As a

contemporary observer put it after the bombing of Hiroshima and Nagasaki, “The bomb may have ended the war but radar won it.”

In his own mind as well as in those of many others, Stodola’s peak achievement at Camp Evans was his role as scientific leader of Project Diana, the first successful attempt to bounce radar waves off the moon. The project was the brain-child of Col. Jack DeWitt, who had dreamed of accomplishing this feat long before the War began. After the War ended, he was instructed to develop radar systems capable of detecting and tracking Soviet missiles; interpreting this mandate broadly, he decided that if he could hit the moon with radar, he could certainly detect Soviet rockets. To accomplish this goal, he assembled a core team of five engineers, soliciting additional assistance from Edwin Armstrong, who helped in improving radar receiver sensitivity; Dr. Walter S. McAfee of the Theoretical Studies Group, who calculated moon-earth orbital Doppler effects; and members of the Antenna and Mechanical Design Group, Research Section, and other Laboratory groups. Stodola’s expertise in the detection of moving targets, combined with his intimate knowledge of the SCR-271 radar system, his knack for improvising using materials already on hand, and his good “people skills”, made him a natural choice to head up this team.

On the morning of January 10, 1946, Stodola and his colleagues gathered in the northeast corner of Camp Evans, aimed their heavily modified SCR-271 “bedspring” antenna at the rising moon, and broadcast a series of radar signals. Two and a half seconds after each signal – the time it takes light to travel to the moon and back – an echoing signal was received. This major “first” for American science and technology generated a wave of popular excitement, making headlines around the world. Project Diana had shown that the ionosphere could be pierced by radio waves, marking the birth of radioastronomy and the opening of the space age. It spurred the development of military applications for radar and paved the way for major advances in both military and civilian radio-

communications. It was also the opening salvo in what became known as the Cold War.

Stodola continued at Camp Evans through 1948 and then joined many of his colleagues in moving to private industry – in his case, Reeves Instrument Corporation, a manufacturer of computer and radar systems that in 1955 merged with Dynamics Corporation of America. Although undoubtedly salaries were better in the private sector, the move was also, perhaps mainly, driven by his desire to continue the engineering work he loved at a time when the Army was starting to contract out much of the creative work they had formerly done “in-house.” He went on to have a distinguished career in the field of radar and electronic warfare and obtained around twenty patents for his inventions. During the last three years of his professional life he returned to work for the Army, this time in Electronic Warfare at the Pentagon.

King and his wife Elsa Dahart Stodola, whom he married in 1939, had four children – Cynthia (born 1943), Leslie (born 1945), Sherry (born 1948), and Robert (born 1953). After being widowed in 1965, he married Rose LaMay in 1968. His descendants include five grandchildren, Julie Pomerleau, Aimee Pomerleau, Joshua Darland, Karin Corbett Iannucci, and Eric King Stodola; and seven great-grandchildren, Augie Pomerleau, Claudia Stafford, Jessa Darland Hall, Gabriel Darland, Onya Darland, Noah Darland, and Enzo King Iannucci. He also has three stepsons and several step-grandchildren and -great grandchildren from his second marriage. He died on April 6, 1992 at the age of 77.