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ENGINEERING THE SATURN V: PERSONAL RECOLLECTIONS OF THE DEVELOPMENT AND TESTING OF THE ROCKET THAT TRANSPORTED MAN TO THE MOON

Abstract

The Saturn V rocket enabled the greatest spacefaring achievement of the 20th century; the landing of human beings on the Moon. From the initial 1961 proclamation of United States (US) President John F. Kennedy that the US would "land a man on the moon and returning him safely to Earth," to the lunar touchdown of the "Eagle" on July 29, 1969, a singular goal was focused upon by thousands of engineers. One of those individuals was an enthusiastic young engineer - named Aloysius "Al" Reisz - who worked on the Saturn V program during the critical development and testing years. Mr. Reisz worked as a propulsion engineer at Boeing supporting the National Aeronautics and Space Administration (NASA) efforts at Marshall Space Flight Center (MSFC) in Huntsville, Alabama (AL). Boeing was the key NASA Saturn V contractor beginning in 1964. Mr. Reisz was involved with the development, testing, and flights of the Saturn V's F-1 engines. He supported the development of the first stage (S-I) propellant management system, and subsequently moved to developing the second stage (S-II) propellant management system with liquid hydrogen fuel. Mr. Reisz's knowledge and recollections of events, such as the bold first launch of the Saturn V on November 9, 1967, provide a first-hand account of spaceflight history. Mr. Reisz was witness to this daring, and successful, "all-up" launch that was deemed critical in order to meet President Kennedy's goals and timeline. On that suspense filled day in 1967, Mr. Reisz was involved with the complex data recording and analysis of the F-1 engines. The present paper will highlight Mr. Reisz's experiences during the development of the Saturn V, as well as additional interesting facts. During the Apollo era, Mr. Reisz, and other US engineers and scientists, represented the epitome of what can be accomplished with a single minded goal and the determination to achieve excellence and transform society.