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NOORDUNG'S "WOHNRAD" AND THE EVOLUTION OF SPACE STATIONS

Abstract

The drawings of a rotating space station, introduced by Hermann Potocnik, known as Noordung, in his book "The Problem of Space Travel" in 1929, mark a milestone in the history of spaceflight concepts. While scientists and rocket engineers like Konstantin Tsiolkovsky, Hermann Oberth and others had already discussed the concept of such a station in 1880s, Noordung presented the first detailed drawings of the spatial concept in his book. These ideas have propelled a lot of other interesting concepts for rotating space stations.

This paper provides a comprehensive overview of the historical development of the wheel-shaped space station and discusses their underlying concepts and reasons for its emergence. Special attention is paid to the interior concept of the space station proposed by Noordung. Further, the paper also examines the dissemination of this concept by figures such as Wernher von Braun and the artist Chesley Bonestell, who promoted the vision of such a station to the general public in the 1950s.