

Hermann Oberth

Birth: June 25, 1894, in Sibiu, Romania, originally called Hermannstadt, Transylvania

Death: December 29, 1989

Profession(s): German physicist, mathematician

Publication: *The Rocket into Planetary Space* (1923)

Remembered for: One of the fathers of rocketry and astronautics, along with Tsiolkovsky and Goddard.

Quotation: "To make available for life every place where life is possible. To make inhabitable all worlds as yet uninhabitable, and all life purposeful."

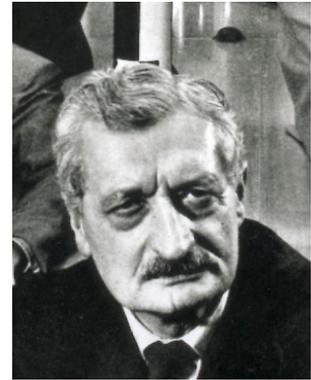


Photo courtesy of NASA

A Closer Look:

Herman Oberth grew up in the country of Romania. As a young man, Oberth got scarlet fever and was sent to Italy to recover. While there, he read Jules Verne's *From the Earth to the Moon*. He became intrigued with the concept of space travel and concluded that liquid-fueled rockets could be developed.

By the age of 14, Oberth envisioned what he termed a "recoil rocket" that could propel itself through space by expelling exhaust gases from its base.

In 1912 at the age of 18, Oberth moved to Germany where he spent most of his adult life. There he enrolled in the University of Munich to study medicine, dutifully following in his father's footsteps. The First World War interrupted his studies and placed him with a medical unit on the battlefield. There he learned that his future was not in practicing medicine, and upon returning to the University, he turned his studies to physics. Because he knew of no one who was researching gravitational pull and the potential of liquid rocket fuel, he taught himself while he tested his theories. He studied mathematics and physics. Oberth realized the importance of multiple stages in rocket travel. He wrote, "If there is a small rocket on top of a big one, and if the big one is jettisoned and the small one is ignited, then their speeds are added."

Oberth studied with several notable scientists and presented his doctoral thesis on rocketry in 1922. His research was rejected, and he turned from the pursuit of academic credentials to distinguish himself as a great scientist. One year later, he published his first draft of *The Rocket into Planetary Space*. A much longer and more detailed version appeared in print in 1929. This book, which explained how rockets could escape the Earth's gravitational pull, finally gained Oberth widespread recognition. After receiving a patent for his rocket design, Oberth's first rocket was launched on May 7, 1931, near Berlin, Germany.

Oberth became a mentor to a young assistant by the name of Wernher von Braun. Together they worked in rocketry research for both Germany and the United States. Hermann Oberth died in Nuremberg, West Germany, on December 29, 1989 at the age of 95.

Although the Russian Tsiolkovsky and the American Goddard conducted similar research and arrived at similar conclusions, there is no evidence that each knew details of the other's work. Therefore, all three of these scientists share the title of father of rocketry.

References:

<http://stange.simplenet.com/oberth/> Biography of Oberth with photos. His book *The Rocket into Planetary Space* was the first to prove that manned rocket trips to space were possible.

<http://www.magicnet.net/~westham/tp12.html> Reproduction of the rocket mail envelope sent by the British Air Force, along with short biographies and photos of Messerschmitt, von Braun, and Oberth.

<http://www3.northstar.k12.ak.us/schools/ryn/spacerace/People/oberth.html> Biography with photos that tells how Oberth got into rocketry and of his persistence in the face of rejection by fellow scientists.

