

46th IAA HISTORY OF ASTRONAUTICS SYMPOSIUM (E4)
Tribute to Wernher von Braun, born 100 years ago (3B)

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THE DR. WERNHER VON BRAUN VISION

Abstract

One hundred years ago, the birth of visionary Dr. Wernher von Braun significantly changed the course of rocket science and space exploration. His influence on space exploration has led to advanced observation satellites, robotic exploration vehicles, advanced rockets capable of carrying humans to space, man walking on the Moon, and the initial concepts of the Space Shuttle. Dr. von Braun loved all aspects of space exploration and had visualized a strategy for the future of human space flight. He proposed establishing a permanent human presence in space through circular space stations and lunar science laboratories with the intent of human exploration of Mars. In honor of his 100th birthday, this paper compares both Dr. von Braun's plans for future space missions with the reality of events that have unfolded since the Apollo age, and key issues he and NASA would have encountered if the space program had progressed as he suggested. These issues include astronaut health, such as radiation exposure and the loss of bone density in a microgravity environment; technology needed to achieve the dream, such as artificial gravity and the replenishing of material on long duration space flights; and political limitations that would have influenced major decisions.