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EARLY ROCKET ORGANIZATIONS: SUCCESSES AND FAILURES

Abstract

In the 1920s, interest in and the science of rocketry began to take off. This paper will chronicle the rise of five early rocketry organizations, their scope and purpose, membership, and early experiments into the nascent technologies. Drawing from the organizational literature, published books, papers, and journals, as well as experimental data, this project will chart the initial formation of the organizations, their successes and failures, their social and technological contributions, and their eventual outcomes. Beginning with the Verein fűr Raumschiffahrt (Society for Space Travel) in Germany, the paper will address early German interest and efforts into rocketry, which eventually became the basis for the Nazi rocket programs in World War II. In the Soviet Union, the GIRD (Group for the Study of Reactive Motion, Russian: Gruppa Izucheniya Reaktivnogo Dvizheniya) began as a citizen hobbyist group, but it too was folded into a larger government program to investigate and develop the technology. In the United States, Theodore von Kármán led the "Suicide Squad"; a group of experimenters that eventually became the Jet Propulsion Lab at Caltech. Science Fiction Writers organized the American Interplanetary Society (AIS) in 1930, consisting of both artists and scientists, including American rocket pioneer Robert Goddard. In 1934 the scientists broke from the writers and formed a parallel organization, the American Rocket Society, which later became the American Institute of Aeronautics and Astronautics. The organizational chronology of the early rocket groups conveys a number of concepts in the history of the technology including concurrence, diffusion, and entrainment, as each tried - in their own countries - to advance rocket technology. Interestingly, early rocketry was focused on manned and unmanned spaceflight. The exigency of war created a situation where governments subordinated rocket technology for military purposes, where it first flourished. Early peaceful experiments and uses were subsumed by governments at war. The organizational histories of the early rocket pioneers are vital for the understanding of the ongoing debate about the future use, legality, and approach to space.