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THE 1926 GREENWOOD LAKE MAIL ROCKET EXPERIMENTS: THE WORLD'S FIRST FLOWN
LIQUID-FUEL ROCKET PLANES?**Abstract**

In the history of aerospace milestones, Germany's Heinkel 176 is usually acclaimed as the world's first aircraft propelled solely by a liquid-propellant rocket, making its first powered flight on 20 June 1939 with Erich Warsitz at the pilot. However, upon closer examination, this is not entirely accurate since in early 1937, a prototype of the He 112—the He 112A V5 model, designed and built by engineer Wernher von Braun, then the Technical Director of Germany's rocket program that led to the A-4 (V-2) rocket—was flown with its Jumo 210D engine piston engine shut down during flight at which time it was propelled by rocket power alone. The sole purpose of that flight WAS TO demonstrate the feasibility of rocket power for aircraft. Yet, technically-speaking, the He 176 still rightfully deserves to be regarded as the first pure liquid-propellant rocket manned plane that was fully powered by this type of power-plant.

Nevertheless, there were several earlier antecedents of the liquid-propellant rocket aircraft although they were unmanned. For instance, one appeared as early as June 1928 in which a remarkably long-duration liquid-propellant rocket motor, apparently built by the German engineer Josef Schaberger, was fitted into a Mueller-Griesheim two-seat high-wing monoplane aircraft and the motor then static-fired although the plane was never flown. Moreover, this aircraft was intended by the financial supporter of the project, Fritz von Opel, to be used to fly across the English Channel although due to lack of interest on the part of the German government and industry, this plan was never realized. Hopefully, a future IAC history paper will eventually be produced to cover that development.

Another project was the construction—and actual flights—of two small-scale unmanned rocket planes in early 1936 from Greenwood Lake, New Jersey, USA, in attempts to carry mail from one American state (New Jersey) to another state (New York). The present paper focuses strictly upon the Greenwood Lake experiments that also marked an interesting and highly colorful chapter in the history of early mail rocket experiments. The paper, the first ever complete analysis of these experiments and their true historical significance, is based upon hitherto unpublished sources, besides many contemporary published sources since these experiments were very widely publicized at the time, as well as filmed as news events for the general public.