## 45th IAA HISTORY OF ASTRONAUTICS SYMPOSIUM (E4) Scientific & Technical History (3)

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## THE THREE HEROES OF SPACEFLIGHT: THE RISE OF THE TSIOLKOVSKY-GODDARD-OBERTH INTERPRETATION AND ITS CURRENT VALIDITY

## Abstract

The single most enduring interpretation in space history credits three thinkers with independently proving the scientific and technological feasibility of spaceflight in the late nineteenth and early twentieth centuries: Konstantin Tsiolkovsky in Russia and the USSR, Hermann Oberth in the German-speaking world, and Robert Goddard in the United States. Precursors and others, such as Hermann Ganswindt and Robert Esnault-Pelterie, are assigned to a distinctly second rank. In recent years, prominent space historians have labeled this scheme as a "cliché" (A. Siddiqi) and as something invented in the 1960s that "bears reexamination." (D. Clary).

This paper will trace the creation of this interpretation to the 1950s and 1960s, particularly after the launch of Sputnik. Priority claims had been debated within the space movement during earlier decades but no clear consensus emerged before that time. Characteristic of many other arguments over science and technology in the period, national priority claims featured strongly, notably in the countries of the three main claimants. At the same time, spaceflight advocates in many countries, but not all, gradually came to accept the actual superiority of the theoretical contributions of Tsiolkovsky, Goddard and Oberth to other claimants. Once the "space race" began with Sputnik in 1957, with the USSR crediting Tsiolkovsky as its founder, the United States rediscovering Goddard as its hero, and the former Germans in the United States (notably Willy Ley and Wernher von Braun) continuing to assert Oberth's influence, the interpretation hardened into a set pattern visible in almost all histories of spaceflight, especially those in English.

The paper will conclude with a reexamination of the validity of the "three heroes" scheme in the light of the newest scholarship on the early history of space movements. It is my conclusion that, viewed from the narrow perspective of theoretical originality, the traditional interpretation still is defensible, but at the cost of ironing out many complexities, such as the intellectual foundations of the various space movements, and contributions of other theorists, notably Esnault-Pelterie, Hohmann, Kondratyuk and Tsander.