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Author: Dr. Andrew Erickson Naval War College/Harvard University, United States

THE SPACE RACE REVISITED: THE LUNAR LANDING AND ITS LARGER LESSONS

Abstract

The Cold War space competition between the U.S. and the USSR, centered on their race to the moon, offers both a fascinating historical case and some larger implications for aerospace and technology development and policy. Moscow's capabilities appeared to eclipse Washington's in the late 1950s under Premier Khrushchev's direction and Chief Designer Korolev's determined implementation. This called the international system's very nature into question and prompted President Kennedy to declare a race to the moon. In a marked divergence from the Soviet space development system, U.S. private corporations, under NASA's guidance, helped meet Kennedy's deadline in 1969. Drawing on his personal interviews with both direct American and Soviet participants and other experts, as well as on extensive written and oral archival materials, the author will examine in detail and reconsider this fascinating history to suggest larger conclusions and potential lessons and implications. Among them: Technological development is shaped by the national system and conditions under which it occurs, because modern organizations must develop standardized rules and procedures to create and sustain the bureaucracies that coordinate it. Nations cannot simply allocate resources to produce aerospace success, which at its highest levels of scope and sophistication is represents a comprehensive test of not only specific programs, but also of the capabilities of the organizations and nation(s) that support them. As a particularly important example, systems management was developed by the U.S. ATT Corporation, proved itself in both the U.S. Polaris submarine-launched ballistic missile (SLBM) and Apollo moon landing programs, and remains one of the most successful mechanisms for high technology development.