

Latin in Space: NASA's Relationship with the Latin Language and Culture

NASA, the National Aeronautics and Space Administration, frequently draws from Roman mythology and the Latin language for mission names and project mottos. Despite its significant relationship with Latin, NASA's use of the language and culture betrays a superficial understanding, often borrowing from aphorisms and phrases used by other institutions rather than first-hand knowledge of the language itself. Even without a complete understanding of the language and culture it is drawing from, the American space agency demonstrates ties with classical studies that are deep and tell an intricate story of the long interplay between a bastion of American STEM fields and the humanities. NASA's use of Latin is therefore worth examining for what it can tell us about the role of classics in pioneering science of the 20th century and because it allows us to situate the use of Latin within the culture and understanding of NASA at the time.

The earliest crewed NASA missions draw their names from Roman mythology, including Mercury (1958-1963), Gemini (1961-1966), and Apollo (1960-1972) (Wells et al. 1976). The inspiration for the names of both the Mercury and Apollo missions originated with NACA/NASA engineer Abe Silverstein in 1960, who saw NASA's grand mission mirrored in the myths he was reading about Apollo driving his chariot across the sky (Kennard 2009) and of the swift messenger Mercury (Arrighi 2013). Employees were encouraged to continue the mythological naming conventions by the Ad Hoc Committee to Name Space Projects and Objects (Wells et al. 1976) for consistency rather than a devotion to any represented or perceived ideals.

NASA has also drawn from Latin for mottoes used by a number of missions and agencies. Notably, the fated Apollo 13 mission embroidered *ex luna, scientia* on the patch sewn on to astronauts' spacesuits, a phrase Commander Jim Lovell based on the Naval Academy's motto *ex trident, scientia* (Swanson 1995). The patch for the Block 2 Thermal Vacuum Number 1 (2TV-1) test of the Apollo spacecraft featured *arrogans avis cauda gravis*, presumably because it was a ground test and would never fly. This motto, however, was also based on a pre-existing one: Continental Airlines' "The Proud Bird With The Golden Tail" (Hengeveld 2000). Similarly, current NASA branches and projects have adopted Latin mottos, including the ATTRACTOR projects motto of *docendo discimus* and the motto of mission operations at NASA's Armstrong Center, *ex binarii, cognitio*, clearly meant to evoke the Apollo 13 motto (Heymon and Meszaros, 2018).

This paper examines the origins of these examples of NASA's use of the Latin language, as well as the history of these phrases before their use by NASA. This research discusses the considerations used in the naming processes for classically-related missions such as Mercury, Gemini, and Apollo, as well as the resulting naming conventions and standards. The original Latin influences on mottoes used by missions and branches throughout NASA's history are also considered. By examining the origin and use of these mottos we can begin to tie NASA in with the Latin history that is currently missing. Even if these mottos were designed without knowledge of the language, this analysis starts to re-situate NASA usage within the broader cultural and historiographic framework in order to evaluate the use of Latin at NASA.

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