

# NASA delays launch of Psyche Mission 2023

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## [GS Paper 3 - Space Technology and IT]

**Context** - NASA has announced that the Psyche mission, the space agency's first mission designed to study a metal-rich asteroid, will not be attempting a 2022 launch.

The late delivery of the spacecraft's flight software and testing equipment means that NASA does not have enough time to complete the testing needed ahead of its remaining launch period this year which ends on October 11.

## Key Developments

- Psyche was selected in 2017 as part of NASA's Discovery Program, which is a line of low-cost competition missions led by a single principal investigator. The agency is now forming an independent assessment team to review the path forward for the project and the Discover Program as a whole.
- The independent assessment team will be made up of experts from government,

academia and industry and it will review possible next steps, including estimated costs. The team will also consider the implications for the agency's Discovery Program and planetary science portfolio.

- When the mission team at NASA's Jet Propulsion Laboratory in Southern California began testing the system, a compatibility issue was discovered with the software's testbed simulators. In May, NASA had shifted the mission's targeted launch date from August 1 to no earlier than September 20 to accommodate the work that was needed. The issue has since been corrected but there is not enough time to complete a full checkout of the software for a launch this year.
- If the mission had launched during its originally planned launch period (between August 1 and October 11), the spacecraft would have arrived at the asteroid Psyche in 2026. There are possible launch periods in 2023 and 2024 but the relative orbital positions of Earth and asteroid during those times would mean that the spacecraft would only arrive by 2029 and 2039 respectively.