Prompt: 4: Is the phrase "space race" an effective way to describe competition in the global space domain? Why or why not? [800-1000]

Reporters, commentators, and politicians frequently use the term “space race” to describe contemporary competition in space between the U.S., China, and occasionally Russia.¹ English language publications are now saying “space race” at a greater frequency than ever before, according to data from Google.² In 2019, Vice President Pence was explicit: “Make no mistake about it—we're in a space race today, just as we were in the 1960s, and the stakes are even higher.”³

This raises the natural question: does “space race” accurately describe current competition in space? This essay will argue that “space race” is the wrong analogy because today’s space powers are not prioritizing the same objectives on comparable timelines, have much broader objectives than symbolic “firsts,” and are joined by dozens of other parties pursuing their own interests in space. Comparisons to the early Cold War can lead to inefficient strategies, play into adversary messaging campaigns, and dim prospects for serious international cooperation.

To start, one must first understand what a “space race” entails. The expression dates to the 1950s-1970s, when the U.S. and Soviet Union competed for a series of “firsts” in space, such as the first satellite in Orbit (U.S.S.R., 1957), first man in space (U.S.S.R., 1961) and first man on the moon (U.S., 1969).⁴ Commentators called it a race since both contestants were competing for the same milestones and there was a substantial perceived advantage of being first, even if that advantage was more ideological than technological. This framing was endorsed by the Soviet Union, which understood that space was the only technological arena in which it could compete with the U.S., and by Democrats seeking to criticize the Eisenhower administration.⁵

A lot has changed since then, rendering the comparison inadequate. First and most foremost, multiple powers are not focusing their resources to compete to achieve “firsts” in space. While

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⁵ Walter A McDougall, The Heavens and the Earth: A Political History of the Space Age, Johns Hopkins University Press, 1985, pg 59
China’s space program has made impressive progress in recent years, it’s still playing catch-up.\(^6\) China’s recent probe landing on Mars comes 45 years after the U.S. reached the milestone; China’s new space station comes 48 years after the first U.S. space station; China’s plan for a manned mission to the moon, scheduled for the 2030s, will be at least 60 years after Neil Armstrong stepped foot on the moon.\(^7\) China and Russia appear about a decade or more behind the U.S. in a manned mission to Mars and a permanent presence on the moon, the next big milestones in the alleged “space race.”\(^8\)

Second, 21st century competition in space is much more than competition for “firsts”: space has emerged as a long-term domain of security. Satellites serve critical military functions, such as secure communications, missile detection, imagery and signals intelligence collection, and targeting.\(^9\) As such, they have also become targets of anti-satellite capabilities. Thus, states are allocating their resources toward more practical goals—redundancy, precision, security, reliability, cost—rather than simply chasing the next flashy milestones.

Third, the number of actors in space is vastly greater than during the original space race. Some 70 countries operate the 3300 satellites in orbit today.\(^10\) Private space companies—of which there are at least 375—are pursuing their own objectives in space.\(^11\) Space-based capabilities touch almost every sector of economic activity. A “space race” paradigm that focuses exclusively on great powers pursuing lofty milestones risks ignoring the diverse set of actors, each with their own objectives, that operate in space every day.

The resurrection of the “space race” narrative can lead publics and policymakers to make false conclusions about contemporary strategic competition in space.

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First, it can create pressure on policymakers to commit resources to keep up with competitors, rather than focus on more practical advancements. Half of Americans, for example, believe the U.S. needs to conduct more moon exploration missions to “catch-up to countries like China and Israel,” despite the fact that every person to ever walk on the moon was American, while China has only sent unmanned craft and Israel has never conducted a successful lunar mission. The media narrative of a “space race” is surely fueling misconceptions like this.

Second, the “space race” narrative risks playing into the hands of adversary messaging campaigns. For the Soviet Union, the early space race was a propaganda victory, creating the illusion that Soviet science was superior to that of the United States. A senior Kennedy advisor warned, in 1961, that by “dramatizing the space race, [the U.S. is] playing into the Soviet’s strongest suit” and reinforcing Soviet propaganda. The term “race” implies near-parity, which elevates the weaker party.

Third, the “space race” term ignores the fact that many of the most pressing questions in space—such as limiting orbital debris—will require international cooperation. An estimated 125,000 pieces of orbital debris larger than a centimeter are currently swirling around earth at up to 18,000 miles per hour, which can severely damage space assets when collisions occur. A “race” mindset belies the fact that all spacefaring nations have an interest in managing the orbital debris challenge.

Therefore, the “space race” narrative is a poor, outdated analogy that could fuel misguided priorities. The world’s premier space power should not be replicating the activities of other parties to “catch up” or pursuing purely symbolic feats. Rather, the U.S. should advance security, wealth, and human knowledge by pursuing its own ambitious plans, in concert with international partners, in the cosmos.

14 Kennedy Library, National Security Files, Departments and Agencies Series, Space Activities, General, 1/61–3/61, Box 307. Confidential
15 “Space debris by the numbers,” European Space Agency, 15 Apr 2021, http://www.esa.int/Safety_Security/Space_Debris/Space_debris_by_the_numbers