Rocket Report: New Shepard may fly soon; ULA changes mind on DoD competition

Enlarge / Stoke Space recently conducted a static fire test of its hopper vehicle.
Stoke Space

reader comments

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Welcome to Edition 6.11 of the Rocket Report! There's a lot going on this week, including the completion of pre-flight tests by two companies developing reusable small launch vehicles. On the larger end of the spectrum, NASA is installing engines onto its second Space Launch System rocket, and SpaceX appears to be on track to get a launch license for its second Starship launch next month.

As always, we welcome reader submissions, and if you don't want to miss an issue, please subscribe using the box below (the form will not appear on AMP-enabled versions of the site). Each report will include information on small-, medium-, and heavy-lift rockets as well as a quick look ahead at the next three launches on the calendar.

New Shepard may return to flight in October. As of Tuesday, it has been a full year since the failure of the New Shepard-23 booster, in which the rocket was lost at 1 minute and 4

seconds into flight. While Blue Origin has not said anything publicly, Ars reports that the company's tentative plans call for an uncrewed test flight of New Shepard in early October. If all goes well, Blue Origin is planning its first crewed mission since August 4, 2022, to take place in mid-February next year.

The suborbital space race is on … New Shepard's long-awaited return to flight comes as its primary competitor, Virgin Galactic, has begun to demonstrate an impressive cadence of human spaceflights. With its VSS *Unity* spacecraft, Virgin Galactic can carry four passengers and two pilots to an altitude of about 55 miles, and this vehicle has made four spaceflights in four months this summer. Virgin Galactic's president, Mike Moses, said the company plans to continue flying humans on VSS *Unity* on more or less a monthly cadence from now on.

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Rocket Lab expands hypersonic program. Leidos confirmed this week that it was the contractor for a hypersonic testbed launched by a Rocket Lab Electron vehicle on June 17 from Launch Complex 2 at Virginia's Mid-Atlantic Regional Spaceport. "This successful test has demonstrated first hypersonic insertion of a payload from a commercial launch vehicle and the team is ready to move forward into the next phase of this program," said Leidos CEO Tom Bell.

Four more on tap … The next phase of the program will expand upon this successful test with additional hypersonic flight test opportunities as the United States seeks to match and counter the hypersonic capabilities of other nations. Rocket Lab said it has signed a contract to conduct four additional "HASTE" missions with Leidos on Electron. The missions, scheduled across 2024 and 2025, will also fly from Virginia. (submitted by Ken the Bin)

The Rocket Report: An Ars newsletter

The easiest way to keep up with Eric Berger's space reporting is to sign up for his newsletter, we'll collect his stories in your inbox.

Stoke Space tests hopper. The Washington-based company that is developing a fully reusable small launch vehicle, Stoke Space, said it has completed a static fire test of its "hopper" prototype of a rocket's second stage. "This all-up test was really a hop mission simulation and included everything from flight avionics, power systems, computers, GNC, RCS, tank pressurization, and, of course, the engine and heat shield," the company said on the social network X. It shared a video of the test firing.

Next up an actual hop? … This second stage will land back on Earth after a launch. In its statement, the company continued, "The only thing we simulated was the position data, which was derived in real time from engine data. Simulating the position gave us the opportunity to inject dispersions, such as a persistent roll, which you can see the badass RCS fighting hard to correct." For more about Stoke, check out this feature story from last October. (submitted by Ken the Bin)

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MaiaSpace completes stage test. MaiaSpace has completed the first cryogenic test of a full-scale prototype of the Maia rocket's second stage, European Spaceflight reports. The offshoot of ArianeGroup is attempting to develop a small partially reusable launch vehicle. This Maia rocket is designed to be capable of delivering up to 1,500 kilograms to orbit when its first stage is expended and 500 kilograms when the stage is being recovered. A debut flight of Maia could occur in late 2025.

Capable of going fast? … The cryogenic testing occurred at ArianeGroup's testing facilities in Vernon, France. The prototype stage was designed, built, and integrated by

MaiaSpace in less than nine months. Following the success of the first test, the company is moving forward with two additional cryogenic tests that are scheduled to take place this month. The company is attempting to lean into a new space ethos of moving quickly and iterating. It will be interesting to see whether MaiaSpace is successful in doing so. (submitted by Ken the Bin and EllPeaTea)

Astra announces reverse stock split. Astra Space announced a reverse stock split on Wednesday in an effort to prevent a delisting on the stock exchange, Payload reports. The company's board of directors approved the stock split of Astra's Class A and Class B common stock, both valued at $0.0001, at a ratio of one for 15, effective immediately. A reverse stock split is a common tool utilized by struggling companies, including Momentus and Spire, to artificially bump up a stock price while preserving their market cap value.

In trouble since last summer … Astra was the first launch startup to trade on the NASDAQ back in the SPAC-apalooza of 2021, and the move fueled Astra's plans to expand its launch services. But its ambitious foray into the stock market hit trouble in July when the company's stock price dwindled below the $1-per-share minimum requirement set by NASDAQ. This was led, in part, by the company's struggle to reliably launch its Rocket 3.3 vehicle. (submitted by Ken the Bin)

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