

Rocket Report: SpaceX's South Texas resort, the Air Force makes its picks

Enlarge / The Space Launch System rocket core stage is shown installed on the top-left side of the B-2 Test Stand at NASA's Stennis Space Center.

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Welcome to Edition 3.12 of the Rocket Report! We have plenty of serious news this week about rockets big and small. But our best story is a fun one, all the way from the Altai Mountains in Siberia where SpaceX founder Elon Musk has a big fan in the clergy, apparently.

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.

Mike Griffin joins the board of Rocket Lab. Who had NASA's former chief joining the board of directors at Rocket Lab on their 2020 bingo card? Not us. But on Wednesday, the company

announced it added Griffin to its board, joining company founder Peter Beck and three investors: Sven Strohband of Khosla Ventures, David Cowan of Bessemer Venture Partners, and Matt Ocko of DCVC. The announcement came a little more than a month after Griffin resigned from his position as undersecretary of defense for research and engineering, SpaceNews reports.

Eye on defense ... “He brings a wealth of knowledge and experience from the civil, defense and commercial space sectors that will be invaluable to our team as Rocket Lab continues to grow and meet the ever-evolving launch and space systems needs of the national security community and commercial sector alike,” Beck said of Griffin. This movement sends a strong signal that Rocket Lab sees a big part of its future in national security missions. (submitted by platykurtic and JohnCarter17)

Will any new smallsat rockets make orbit in 2020? In case you hadn't noticed, we're approaching mid-August. Back at the optimistic, prepandemic beginning of 2020, we had high hopes for the debut of new rockets from Astra, Firefly, and Virgin Orbit, as well as international debuts from China, Europe, and possibly India. Now the question is whether any company will make it to orbit this year.

Watching and waiting ... Ars runs down the status of four companies seeking to make the cut this year, and we also can't rule out other surprises from Chinese companies and with India's Small Satellite Launch Vehicle. Astra is first up, with a potential launch attempt later this month, while Virgin Orbit and Firefly are targeting the final quarter of the year. Good luck to all!

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.

Rocket Lab on track to attempt booster recovery. After completing a series of tests, Rocket Lab says it will attempt to fish a first-stage booster out of the ocean later this year. Company founder Peter Beck said Rocket Lab will make its effort to recover a first stage on an upcoming launch, known as Flight 17, SpaceNews reports.

No date has been set for the launch... The next Electron launch—which will be a return-to-flight mission after the failure of an Electron launch July 4—is scheduled for later this month and will be the 14th Electron mission. Beck said recently the company expects to resume a monthly launch cadence. Eventually, the company plans to catch first stages in midair with a helicopter. (submitted by platykurtic, Ken the Bin and JohnCarter17)

Skyroot says it is making progress. An India-based launch startup, Skyroot Aerospace, says it has successfully test fired an upper-stage rocket engine. Business Standard reports that, in doing so, Skyroot has become the first Indian private company to demonstrate the capability to build a homegrown rocket engine.

Aggressive launch target ... Founded by Pawan Kumar Chandana and Naga Bharath Daka, both former scientists at the Indian Space Research Organisation, the company plans to build a family of rockets. The first rocket, Vikram-I, is intended to loft up to 700kg into low-Earth orbit, and may be launched before the end of 2021. (submitted by trimeta and JohnCarter17)

Michigan spaceport idea runs into headwinds. Opponents of a spaceport that may be developed near Lake Superior have started an online petition that has been signed by more than 20,000 people. The petition cites the need to “stop the destruction of our forests,” and the potential of launches to trash the purity of Lake Superior, the Detroit Free Press reports.

Yoopers not whooping ... Proponents of the spaceport have pushed this as an opportunity to create high-paying jobs in an area that has yet to fully recover from the Great Recession of 2008. Local politicians, such as State Rep. Sara Cambensy (D-Marquette) are taking a wait-and-see attitude. “I think as Yoopers and people that live in the Upper Peninsula we’re very protective of our environment, but I have to say I was taken aback by all the protesting of the opportunity” to take advantage of this, she said.

Falcon 9 finally lofts latest Starlink mission. A SpaceX Falcon 9 launched the latest set of the company’s Starlink satellites, along with two BlackSky imaging satellites, last Friday after weeks of delays. The rocket’s first stage, making its fifth flight, landed on a droneship in the Atlantic Ocean, SpaceNews reports. This launch was originally scheduled for late June but postponed several times because of poor weather and technical issues.

Don’t blame the rocket ... The company never explained the technical issue. The landings, they said, needed “additional time for pre-launch checkouts” or “to allow more time for checkouts.” On the launch webcast, John Insprucker, principal integration engineer at SpaceX, said the delays were not caused by the rocket itself. “Through all of this, Falcon 9 has been trouble-free, as the delays have been weather-related and payload-related,” he said. He did not disclose if the payload problems were with the Starlink or BlackSky satellites. (submitted by Ken the Bin)

COVID-19 delays ViaSat-3 launches. The coronavirus pandemic has slowed work on the first ViaSat-3 broadband satellite, making a launch in mid-2021 unlikely, SpaceNews reports. Viasat CEO Mark Dankberg said the pandemic continued to weaken

demand for inflight connectivity services but did not have as strong an impact as feared.

Spreading the wealth among launch companies ... The company is building the payloads for all three ViaSat-3 satellites in-house, and expects to ship the first payload to manufacturer Boeing later this year for integration into a 702 platform. Viasat has launch contracts for all three ViaSat-3 satellites, one for a SpaceX Falcon Heavy, one for an Arianespace Ariane 6, and one for a United Launch Alliance Atlas 5, but has not stated the order in which the missions will occur. (submitted by JohnCarter17)

Russian Orthodox priest pens love letter to Elon. In a recent post on the Russian social media service VK, a Siberian priest named Alexander Mikushin wrote to, "God's servant Elon Musk." The missive appears to have been spurred by the safe return of the Crew Dragon spacecraft to Earth. "Your persistence has borne fruit. For the first time in nine years astronauts have launched into space not from Baikonur, but from a launch site in the US. For the first time in history, people have flown to space on equipment created by a private company!" he wrote, in a post translated for Ars by Robinson Mitchell.

Come to Russia and teach our rocket scientists ... Later, the priest commented further, "With God's help, he will teach our technicians to make rockets" that are reusable like the Falcon 9. This is a rather amusing jab at Dmitry Rogozin and the Russian space corporation, Roscosmos. Mikushin closed his post with this blessing for Musk, "May God the All-Merciful bless you and the employees of your company with continued success in the Space Industry." Perhaps we should also pray for Mikushin's safety, as well.

The Air Force selects ULA and SpaceX. Last Friday afternoon,

the US Air Force answered one of the big questions that had been hanging over the US launch industry for more than a year: which two companies will be selected to compete for national security launch contracts from 2022 to 2026? William Roper, assistant secretary of the Air Force for acquisition, technology, and logistics, said that United Launch Alliance will receive approximately 60 percent of the launch orders and SpaceX will receive the other 40 percent, Ars reports.

Some intrigue remains ... Two other bidders, Northrop Grumman with its Omega rocket, and Blue Origin with its New Glenn vehicle, will not receive awards. “The ability to meet our technical factors to do the mission is the most important thing,” Roper said, in response to a question on the Air Force criteria. The decision comes with plenty of intrigue, not least of which is that SpaceX still has an ongoing lawsuit against the United States over earlier awards. Tim Fernholz has a good rundown of the outstanding questions.

SpaceX reveals plans for Texas spaceport “resort.” A curious new job posting at SpaceX seeks a “Resort Development Manager” to be based out of Brownsville, the nearest neighboring town to the small Boca Chica area where SpaceX has built its Starship development site. The job posting seeks a manager to “oversee the development of SpaceX’s first resort from inception to completion,” with the ultimate aim of turning Boca Chica into a “21st century Spaceport,” TechCrunch reports.

End-to-end experience? ... That would include overseeing the entire design and construction process, as well as getting all necessary work permits and regulatory approvals, and completing the ultimate build of the facility. This new posting suggests that SpaceX will seek to create an end-to-end experience out of spaceflight, perhaps more in line with what Virgin Galactic is building at its Spaceport America site in New Mexico. (submitted by JohnCarter17)

Delta IV Heavy on track for upcoming launch. The flight of a United Launch Alliance Delta 4-Heavy rocket set for Aug. 26 from Cape Canaveral continues the Delta rocket family's countdown to retirement, Spaceflight Now reports. With five Delta 4-Heavy missions left to launch, ULA's chief executive, Tory Bruno, says there are no plans to build more as the company transitions to the next-generation Vulcan Centaur rocket.

Exact launch time not announced ... ULA's heavy-lifter will carry a classified payload into orbit for the National Reconnaissance Office, which owns the US government's fleet of spy satellites. The mission, code-named NR0L-44, will mark the 12th flight of ULA's most powerful rocket since its debut in 2004. ULA says the mission has a launch period opening at 1:50am EDT (05:50 UTC) and closing at 6:25am EDT (10:25 UTC), but the actual launch window lies within that period. (submitted by Ken the Bin and JohnCarter17)

SLS rocket making progress on Green Run tests. The Space Launch System rocket core stage for the Artemis I lunar mission has successfully completed its first four Green Run tests, NASA said. "We are methodically bringing several complex systems to life and checking them out during the first seven tests," explained SLS Stages Manager Julie Bassler.

Working toward the key test ... On Aug. 5, engineers at NASA's Stennis Space Center completed the fourth of eight planned tests of the 212-foot-tall core stage. For Test 4, engineers performed the initial functional checkout of the main propulsion system components to verify command and control operability (valve response, timing, etc.) and performed leak checks on the core stage-to-facility umbilical fluid and gas connections. The eighth and final test will come late this year, when the rocket's four main engines are fired for up to eight minutes. (submitted by Ken the Bin)

Next three launches

Aug. 15: Ariane 5 | Galaxy 30, MEV-2 & BSAT-4B satellites | Kourou, French Guiana | 21:33 UTC

Aug. 18: Falcon 9 | Starlink-10 mission | Cape Canaveral, Fla. | 14:31 UTC

Aug. 26: Delta IV Heavy | NROL-44 | Cape Canaveral, Fla. | 05:50 UTC

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