

Astra Space goes private as it recovers from Space Coast launch failures

March 11 2024, by Richard Tribou, Orlando Sentinel



Credit: Unsplash/CC0 Public Domain

The value of publicly traded Astra Space has been falling since it shelved a rocket design that only went for 2 for 7 on launches, including two highly visible failures from the Space Coast. Now the company is going private.

Once valued at more than \$2.1 billion, the Alameda, California-based [company](#) closed at about \$20 a share on the Nasdaq Stock Market in February 2021, months before its first orbital success with its Rocket 3 design. It has since made a steady drop in value, including the threat of delisting from Nasdaq last year and the potential for bankruptcy looming.

The deal announced Thursday calls for a group that includes company cofounder and CEO Chris Kemp and cofounder and CTO Adam London to buy back company shares for \$0.50 per share. The stock was trading at \$0.55 on Friday morning. The closing price was \$0.86 per share on Wednesday.

The takeover transaction is expected to close in the [second quarter](#) of 2024.

The company managed to reach orbit in November 2021 during a demonstration flight for the Space Force from Alaska and that led to its first launch attempt from Cape Canaveral Space Force Station in March 2022.

While it managed to make it to space, issues with the second stage left it in an uncontrolled tumble, with the curvature of the Earth seen dipping in and out of the video broadcast during launch. The payloads that were part of the mission lined up by NASA were lost.

Despite a second success from Alaska only one month later in 2022, the Rocket 3's final straw came during an attempt to launch NASA's TROPICS-1 mission from the Cape later that summer, and its pair of hurricane-tracking satellites were lost during second-stage issues as well.

NASA had lined up Astra Space to launch three TROPICS missions, but ended up shifting the remaining two to competitor Rocket Lab. Astra turned its attention to designing a bigger, and what it aimed to be a more reliable Rocket 4 with initial aims to fly it this year, although progress on that effort remains uncertain.

The larger design, doubling the payload capacity of Rocket 3, is still targeting the ability to service the commercial internet constellations in the works similar to SpaceX's Starlink and Amazon's Project Kuiper. The company stated in 2023 that it intended to keep costs to under \$5 million per launch.

"We know that we have room to improve further, so we are implementing dozens of company-wide initiatives designed to ensure the reliability of Rocket 4. These improvements include an overhauled design review process, a more robust test-like-you-fly qualification process, and a refreshed set of Astra core values," a report on the TROPICS-1 failure read at the time.

Astra Space, which flew under a lease agreement with Space Florida for use of Space Launch Complex 46, was the first new [rocket](#) company to launch from the Space Coast since SpaceX came to town in 2010.

More recently, the small rocket business became filled with newcomers since an injection of millions of dollars by stock offerings and private equity firms drove the market, an exuberance that has waned as companies took longer to get to the launch pad than expected.

A few, including Astra Space and Virgin Orbit, were able to make orbit but a lack of consistency in successful delivery hurt finances, and Virgin Orbit entered into bankruptcy last year.

Another new rocket service provider, Long Beach, California-based Relativity Space, made its first launch with its 3D-printed Terran 1 rocket from Cape Canaveral's Launch Complex 16 in March 2023, but it also saw issues with its second stage and is already transitioning work to its larger Terran R rocket with no clear timetable for when that new hardware might launch.

Cedar Park, Texas-based Firefly Aerospace, which had its first partially successful orbital flight in October 2022 and a fully successful flight with its Alpha rocket in September 2023, both from California, has a launch lease for use of Canaveral's Space Launch Complex 20, but has no announced plans for a launch from there anytime soon.

Other small rocket companies could eventually make their way to the Space Coast still as the Space Force in 2023 designated access to more launch pads for four commercial companies.

Space Launch Complex 13 will be shared between Phantom Space based out of Tucson, Arizona, with its Daytona rocket and Vaya Space based out of Cocoa, Florida, with its Dauntless rocket. LC 13 is the site of SpaceX's Landing Zones 1 and 2 for the return trips of its first-stage boosters. It was previously used for early Atlas rocket launches from the late 1950s into the 1970s.

Space Launch Complex 15 will go to ABL Space Systems based out of El Segundo, California, which has to date had one launch out of Alaska of its RS1 rocket that failed after liftoff in January 2023 but has a second planned from Alaska soon. SLC 15 was used for Titan rockets from 1959-1964.

Space Launch Complex 14 was set aside for Stoke Space, a Kent, Washington-based company that's working to create a fully reusable rocket. SLC 14 was the launch site that sent John Glenn to space on the Mercury-Atlas 6 mission becoming the first American to orbit the Earth.

The [business case](#) for the small-class rocket market remains a question mark, especially for rockets without reusability.

Meanwhile, SpaceX with its Falcon 9 and Falcon Heavy rockets along with United Launch Alliance with its remaining Delta IV Heavy, Atlas and new Vulcan Centaur rockets, remain the lone active launch providers from Cape Canaveral, although Jeff Bezos' Blue Origin and its new heavy-lift rocket New Glenn is expected to make its first launch attempt before the end of the year.

2024 Orlando Sentinel. Distributed by Tribune Content Agency, LLC.

Citation: Astra Space goes private as it recovers from Space Coast launch failures (2024, March 11) retrieved 2 May 2024 from <https://phys.org/news/2024-03-astra-space-private-recovers-coast.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.