

Firefly Aerospace reaches orbit with new Alpha rocket

October 2 2022

A new aerospace company reached orbit with its second rocket launch and deployed multiple small satellites on Saturday.

Firefly Aerospace's [Alpha rocket](#) lifted off from Vandenberg Space Force Base, California, in early morning darkness and arced over the Pacific.

"100% mission success," Firefly tweeted later.

A day earlier, an attempt to launch abruptly ended when the countdown reached zero. The first-stage engines ignited but the rocket automatically aborted the liftoff.

The rocket's payload included multiple [small satellites](#) designed for a variety of technology experiments and demonstrations, as well as educational purposes.

The mission, dubbed "To The Black," was the company's second demonstration flight of its entry into the market for small satellite launchers.

The first Alpha was launched from Vandenberg on Sept. 2, 2021, but did not reach orbit.

One of the four first-stage engines shut down prematurely but the rocket continued upward on three engines into the supersonic realm where it

tumbled out of control.

The rocket was then intentionally destroyed by an explosive flight termination system.

Firefly Aerospace said the premature shutdown was traced to an electrical issue, but that the rocket had otherwise performed well and useful data was obtained during the nearly 2 1/2 minutes of flight.

Alpha is designed to carry payloads weighing as much as 2,579 pounds (1,170 kilograms) to low Earth [orbit](#).

Other competitors in the burgeoning small-launch market include Rocket Lab and Virgin Orbit, both headquartered in Long Beach, California.

Firefly Aerospace, based in Cedar Park, Texas, is also planning a larger [rocket](#), a vehicle for in-space operations and a lander for carrying NASA and commercial payloads to the surface of the moon.

More information: firefly.com/alpha/

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