

# Rocket 'terminated' in fiery explosion over Pacific Ocean

September 3 2021

---



A rocket launched by Firefly Aerospace, the latest entrant in the New Space sector, is seen exploding minutes after lifting off from the central California coast on Thursday, Sept. 2, 2021. The Alpha rocket was "terminated" over the Pacific Ocean shortly after its 6:59 p.m. liftoff from Vandenberg Space Force Base, according to a base statement. Credit: Len Wood/For The Santa Maria Times via AP

A privately designed, unmanned rocket built to carry satellites was destroyed in an explosive fireball after suffering an "anomaly" off the California coast during its first attempt at reaching Earth's orbit.

Firefly Aerospace's Alpha [rocket](#) was "terminated" over the Pacific Ocean shortly after its 6:59 p.m. Thursday liftoff from Vandenberg Space Force Base, according to a base statement. [Video](#) from the San Luis Obispo Tribune showed the explosion.

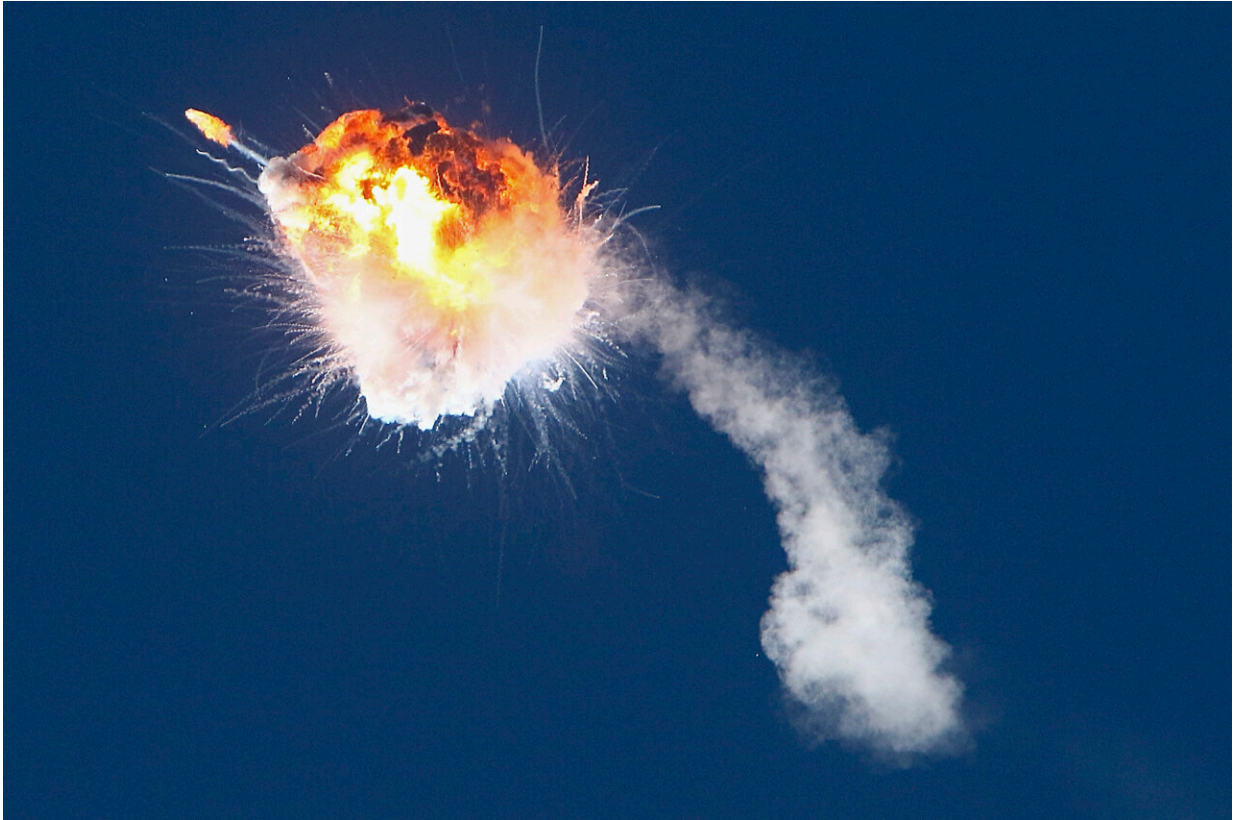
Firefly said an "anomaly" occurred during the first-stage ascent that "resulted in the loss of the vehicle" about two minutes, 30 seconds into the flight. Vandenberg said a team of investigators will try to determine what caused the failure.

The rocket was carrying a payload called DREAM, or the Dedicated Research and Education Accelerator Mission. It consisted of items from schools and other institutions, including small satellites and several demonstration spacecraft.

"While we did not meet all of our [mission objectives](#), we did achieve a number of them: successful first stage ignition, liftoff of the pad, progression to supersonic speed, and we obtained a substantial amount of flight data," Firefly said in a statement. The information will be applied to future missions.



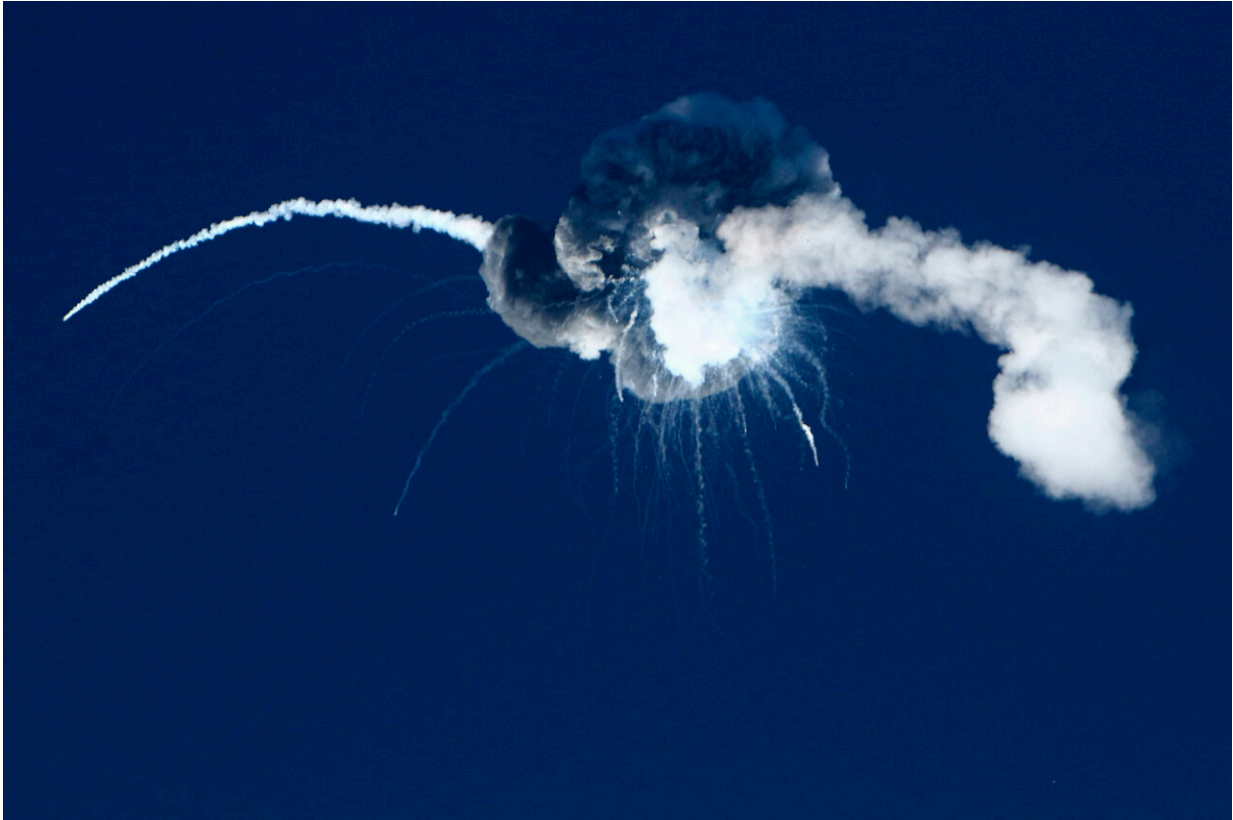
A rocket launched by Firefly Aerospace, the latest entrant in the New Space sector, is seen exploding minutes after lifting off from the central California coast on Thursday, Sept. 2, 2021. The Alpha rocket was "terminated" over the Pacific Ocean shortly after its 6:59 p.m. liftoff from Vandenberg Space Force Base, according to a base statement. Credit: Len Wood/For The Santa Maria Times via AP



A rocket launched by Firefly Aerospace, the latest entrant in the New Space sector, is seen exploding minutes after lifting off from the central California coast on Thursday, Sept. 2, 2021. The Alpha rocket was "terminated" over the Pacific Ocean shortly after its 6:59 p.m. liftoff from Vandenberg Space Force Base, according to a base statement. Credit: AP Photo/Matt Hartman



A rocket launched by Firefly Aerospace, the latest entrant in the New Space sector, is seen lifting off from the central California coast on Thursday, Sept. 2, 2021. The Alpha rocket was "terminated" over the Pacific Ocean shortly after its 6:59 p.m. liftoff from Vandenberg Space Force Base, according to a base statement. Credit: AP Photo/Matt Hartman



A rocket launched by Firefly Aerospace, the latest entrant in the New Space sector, is seen exploding minutes after lifting off from the central California coast on Thursday, Sept. 2, 2021. The Alpha rocket was "terminated" over the Pacific Ocean shortly after its 6:59 p.m. liftoff from Vandenberg Space Force Base, according to a base statement. Credit: AP Photo/Matt Hartman

Austin, Texas-based Firefly is developing various launch and space vehicles, including a lunar lander. Its Alpha rocket was designed to target the growing market for launching [small satellites](#) into Earth orbit.

Standing 95 feet (26 meters) high, the two-stage Alpha is designed to carry up to 2,200 pounds (1,000 kilograms) of payload into low orbit. The company wants to be capable of launching Alphas twice a month. Launches would have a starting price of \$15 million, according to

Firefly.

Firefly will have to catch up with two Long Beach, California-based companies that are ahead in the small satellite launch sector.

Rocket Lab has put 105 satellites into orbit with multiple launches from a site in New Zealand and is developing another launch complex in the U.S.

Virgin Orbit has put 17 satellites into space with two successful flights of its air-launched LauncherOne rocket, which is released from beneath the wing of a modified Boeing 747.

© 2021 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

Citation: Rocket 'terminated' in fiery explosion over Pacific Ocean (2021, September 3)  
retrieved 18 April 2024 from  
<https://phys.org/news/2021-09-rocket-terminated-fiery-explosion-pacific.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.