SpaceX’s second Starship flight test ends in an explosion minutes after launch

SpaceX’s massive Starship rocket just took off shortly after 8AM ET from the company’s Starbase launch facility in Boca Chica, Texas.

A few minutes after the launch and a planned “hot stage” separation, the Super Heavy booster exploded instead of continuing its planned descent and water landing, but Starship itself continued into space. Minutes later, the SpaceX team said it had not received any signal from Starship and that they may have lost the ship. *The New York Times* wrote that the upper stage made it 90 miles high, putting it into space prior to its loss.

SpaceX confirmed in a post after the launch that “the booster experienced a rapid unscheduled disassembly” after the separation, but did not comment on Starship itself other than to say its “engines fired for several minutes on its way to space.” The FAA later confirmed that Starship was lost.

You can see the booster explosion in the from *NASA Space Flight*’s YouTube channel.

That far into its flight, the craft was likely no longer in range of ground stations, but it appears the craft’s flight termination system engaged soon after its Raptor engines shut down.

Making it to space was part of the goal for this flight test, with SpaceX hoping for Starship to briefly orbit the Earth and splash down near Hawaii. Lisa Watson-Morgan, who heads up NASA's Human Landing System program, told *Ars Technica* during an interview published yesterday that whether the launch succeeded in that goal or not, it would still "be a great learning event," giving SpaceX and NASA more information to continue iterating on Starship's systems for future tests.

This marks the second launch attempt for the 397-foot-tall rocket, which uses a two-stage system that separates a few minutes into launch, with the booster intended to set back down.

Although the Starship launch was originally scheduled to take place on November 17th, SpaceX pushed back the flight to replace a grid fin actuator, a component that helps guide the Super Heavy booster to its destination.

This launch test made it much farther along than the previous attempt. Starship's first test flight in April ended in failure. The rocket burst into flames shortly after its launch and fired detonators to self-destruct. SpaceX blamed the failure on leaking propellant from the Super Heavy booster, stating it "severed connection with the vehicle's primary flight computer." The company couldn't conduct another launch until it addressed the Federal Aviation Administration's 63 corrective actions.

Update November 18th, 2023, 10:10AM ET: *Added FAA confirmation that Starship was lost.*

https://www.theverge.com/2023/11/18/23965728/spacex-starship-flight-test-explosion-super-heavy-booster