Starship flight 15 powers to orbit—setting up a possible catch on Saturday

STARBASE, Texas—Starship lifted off right on schedule Friday from South Texas, making its 15th test flight in more than three years.

The largely successful launch took place in the early evening; as the massive rocket rose into the atmosphere, the Sun sank toward the western horizon. Conditions were ideal for the launch, with the atmospheric winds so calm the rocket's white plume did not dissipate for many minutes. The weather in South Texas is not always comfortable; summers are long and hot. Friday evening was perfect at Starbase.

The first stage ascended toward space flawlessly, releasing the upper stage above the Gulf of Mexico. From there, the Starship upper stage ignited its Raptor engines and powered its way into a nominal orbit. This was the second time SpaceX has flown Starship into low-Earth orbit.

When it came time for the first stage to return to the ground, it dropped like a rock. However, due to an unspecified issue, the vehicle was commanded to divert into the Gulf rather than return to the Starbase facility to be caught by the launch tower. It created a fantastically powerful explosion, even for observers more than 10 miles away.

Primary mission, a success

The primary aim of Friday's launch was the deployment of 26 Starlink V3 satellites from a narrow door at the base of the

spacecraft. This occurred about 40 minutes into Starship's flight, and all 26 satellites—which have solar panels that stretch 60 meters end to end when fully deployed—safely made it into orbit, where they will now use onboard propulsion to raise their altitude.

This means that Starship is now an operational, orbital rocket. It is the largest and most powerful machine humans have ever launched into space. The challenge for the company now is to make Starship reusable and dramatically increase its flight rate.

In that sense, the first part of Friday's mission was not a success. SpaceX had hoped to return the first-stage booster, refurbish it, and fly it again. The company has previously landed and reflown Starship boosters but has yet to do so with the latest iteration of the vehicle, version 3.

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