

SpaceX loses 40 of 49 Starlink satellites due to geomagnetic storm

Article

The news: SpaceX lost the bulk of its recently launched **Starlink** satellites due to a geomagnetic storm one day after takeoff.

More on this: SpaceX launched 49 Starlink low-orbit satellites on February 3 from the Kennedy Space Center in Florida. Forty of these satellites, located 130 miles above Earth, were rendered inoperable by a storm triggered by a solar flare, [per](#) Bloomberg.

- SpaceX said the geomagnetic storm, which is a major disturbance of the Earth's magnetosphere triggered by solar winds, increased the temperature and density of the atmosphere, heightening the drag of objects moving through it.
- The satellites have re-entered Earth's atmosphere and are designed to burn up before reaching solid ground. The loss is expected to be \$100 million, "if you include the cost of the launch," **said Dr. Hugh Lewis**, a space debris expert from the University of Southampton in England.
- The 130-mile altitude for Starlink satellites was chosen to avoid a potential collision with other satellites.
- **Starlink has 1,915 satellites in orbit.** The largest by far of any satellite internet provider.

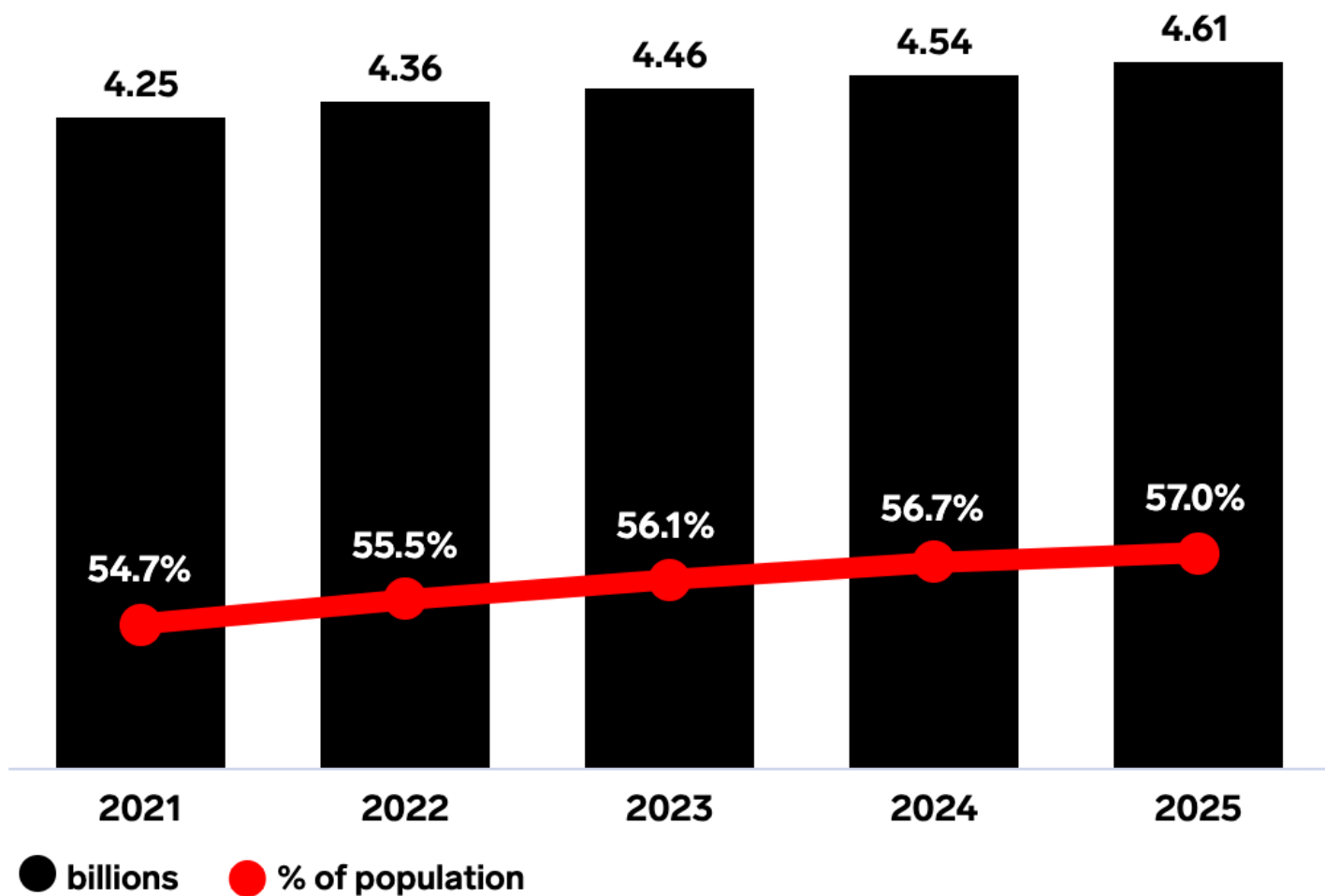
The problem: SpaceX, which recently announced a **\$500 per month premium satellite internet service**, is taking **flak** from astronomers and NASA for its rush to launch satellites and its lackadaisical attitude toward problems occurring in low Earth orbit.

- There was a violent eruption from the sun on January 29, days before the satellites launched, and the effects of this arrived at Earth around February 2. SpaceX launched 49 satellites despite the presence of the geomagnetic storm.
- "I'm just kind of dumbfounded," said **Samantha Lawler**, an astronomer at the University of Regina in Canada. "Really? They did not think of this?"
- "If things fail, they fix them and do things better next time," Lewis said. "This is another example of that"—a policy of adherence to hindsight, not foresight.
- **NASA** warned that SpaceX's plan for 30,000 additional satellites could **disrupt** science missions, human spaceflight, the Hubble telescope, and ground-based telescopes seeking out asteroids hitting the Earth.

What's the catch? While the loss of 40 satellites may seem like a small and even acceptable loss for Starlink, this could call into question some of its decisions, particularly in deploying internet satellites at a low altitude, where they are vulnerable to geomagnetic storms.

Internet Users

Worldwide, 2021-2025



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