

Starlink satellite breaks apart into “tens of objects”; SpaceX confirms “anomaly”

“These events illustrate the need for rapid characterization of anomalous events to enable clarity of the operating environment,” it said.

Starlink provided a few details shortly after the December 2025 incident, saying on December 18 that an “anomaly led to venting of the propulsion tank, a rapid decay in semi-major axis by about 4 km, and the release of a small number of trackable low relative velocity objects.” Starlink added that the satellite was “largely intact” but “tumbling,” and would reenter the Earth’s atmosphere and “fully demise” within weeks.

In December, Starlink seemed confident that it could prevent future anomalies. “Our engineers are rapidly working to [identify the] root cause and mitigate the source of the anomaly and are already in the process of deploying software to our vehicles that increases protections against this type of event,” Starlink said in the December 18 post.

We asked SpaceX today whether it has determined the cause of the December anomaly or the one on Sunday, and will update this article if we get a response.

Starlink reported near-crash after Chinese launch

Starlink also had a near-crash in December, in a different

incident about a week before the “tumbling” satellite. Starlink Senior VP Michael Nicolls wrote on December 12 that a Chinese company had launched nine satellites without coordinating with other space users. Lack of coordination increases the risk of collisions, he said.

“As far as we know, no coordination or deconfliction with existing satellites operating in space was performed, resulting in a 200 meter close approach between one of the deployed satellites and STARLINK-6079 (56120) at 560 km altitude,” Nicolls wrote at the time, referring to the Chinese launch. “Most of the risk of operating in space comes from the lack of coordination between satellite operators—this needs to change.”

Coordination can only become more important if SpaceX goes through with its stated plan of launching a million satellites to create an orbital data center.

Under normal circumstances, Starlink satellites reaching their end-of-life date follow “a targeted reentry approach to deorbit satellites over the open ocean, away from populated islands and heavily trafficked airline and maritime routes,” Starlink says in a document on “satellite demisability.” But satellites that fall to Earth unexpectedly should pose no risk to people on the ground because they are designed to “demise with extremely low impact energy,” according to Starlink.

“A critical aspect of sustainable satellite design is demisability, which ensures that satellites fully break up and burn up during atmospheric reentry,” Starlink says in the document. “Any fragments that do not completely demise should have negligible impact energy.”

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