

GEOMAGNETIC STORM DISABLES 40 SPACEX SATELLITES

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The announcement, posted on the SpaceX website on Tuesday, said the satellites were stricken last Friday, Feb. 4, a day after they were launched to a preliminary 'low-deployment' orbit about 130 miles (210 km) above Earth.

LOS ANGELES : A geomagnetic storm triggered by a large burst of radiation from the sun has disabled at least 40 of the 49 satellites newly launched by SpaceX as part of its Starlink internet communications network, the company said.

The announcement, posted on the company's website on Tuesday, said the satellites were stricken last Friday, Feb. 4, a day after they were launched to a preliminary "low-deployment" orbit about 130 miles (210 km) above Earth.

Launch of the satellites, carried aloft by a SpaceX Falcon 9 rocket flown from the Kennedy Space Center in Florida, roughly coincided with a geomagnetic storm watch posted for last Wednesday and Thursday, Feb. 2-3, by the U.S. Space Weather Prediction Center.

The alert warned that solar flare activity from a "full halo coronal mass ejection" - a large blast of solar plasma and electromagnetic radiation from the sun's surface - was detected on Jan. 29, and was likely to reach Earth as early as Feb. 1.

The alert also said resulting geomagnetic storm conditions on Earth were "likely to persist" into Feb. 3 "at weakening levels."

According to SpaceX, the speed and severity of the solar storm warmed Earth's atmosphere, thus increasing atmospheric density at the low-orbit altitude of the satellites, essentially creating intense friction or drag that knocked out at least 40 of the satellites.

Starlink operators tried commanding the satellites into a "safe-mode" orbital configuration allowing them to fly edge-on to minimize drag, but those efforts failed for most of the satellites, forcing them into lower levels of the atmosphere where they safely burned up on re-entry over the Earth, according to SpaceX.

"This is unprecedented as far as I know," Harvard University-based astrophysicist Jonathan McDowell told Reuters in an email, saying it was the first time he was aware of satellite failures caused by an increase in atmospheric density from a solar storm, rather by higher electromagnetic radiation itself.

SpaceX, the Los Angeles area-based rocket company founded by billionaire entrepreneur Elon Musk, has launched hundreds of small satellites into orbit since 2019 as part of Musk's Starlink service for broadband internet. The company ultimately envisions a constellation of roughly 12,000 satellites in all.

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