

Amy Shira Teitel Warns of Escalating Space Junk Crisis Endangering Satellites and Space Operations

LOS ANGELES, CA, UNITED STATES,
November 18, 2025 /

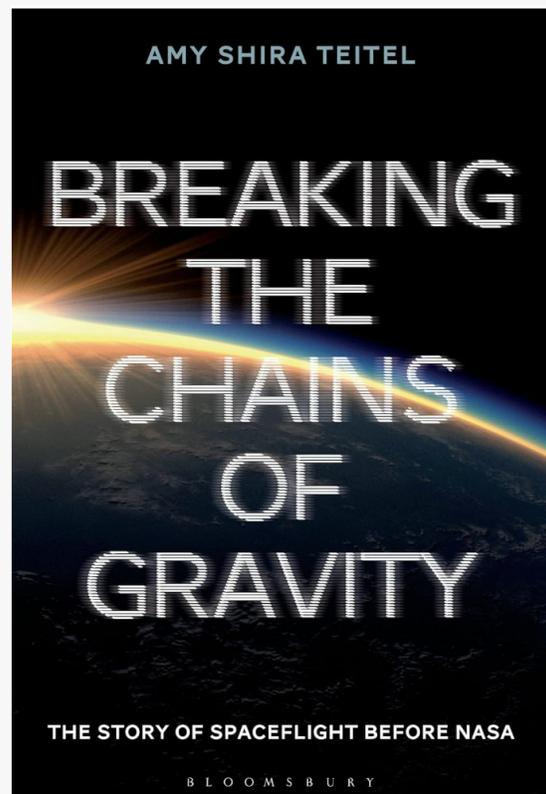
EINPresswire.com/ -- Space historian, author, and science communicator [Amy Shira Teitel](#) is drawing urgent attention to the rapidly growing crisis of space junk in Low Earth Orbit (LEO), the region of space between roughly 100 and 1,200 miles above Earth where most satellites, including the International Space Station, travel at nearly 18,000 mph. With millions of human-made debris fragments moving through this zone, Teitel says the danger to satellites, astronauts, and global communication systems is becoming impossible to ignore. Right now, three of China's astronauts (taikonauts) are stranded aboard the nation's Tiangong Space Station after their return spacecraft was damaged by an apparent debris strike.

"Space junk isn't just a relic of the early space age; it's happening right now, above our heads," says Teitel. "We've launched satellites and rockets for decades without fully considering their long-term impact. Now we're dealing with the fallout."

NASA confirms that millions of debris fragments occupy LEO. These include everything from paint flecks to entire



Amy Shira Teitel



dead satellites, a problem that stretches back to the dawn of spaceflight. Vanguard 1, launched in 1958, still orbits Earth. Upper rocket stages from early missions remain overhead, and explosive bolts used during stage and payload separations create shrapnel. Satellite housings, loose hardware, and aging spacecraft add to the growing cloud of debris.

“With so many abandoned objects in space, not everything returns safely,” Teitel explains. “And many satellites remain in high orbits for decades, meaning they’re still part of the debris problem.”

Even the smallest fragments pose serious risks. At orbital speeds, a fleck of paint can damage or destroy active spacecraft. The International Space Station (ISS) has already performed more than 20 debris-avoidance maneuvers to prevent potential collisions.

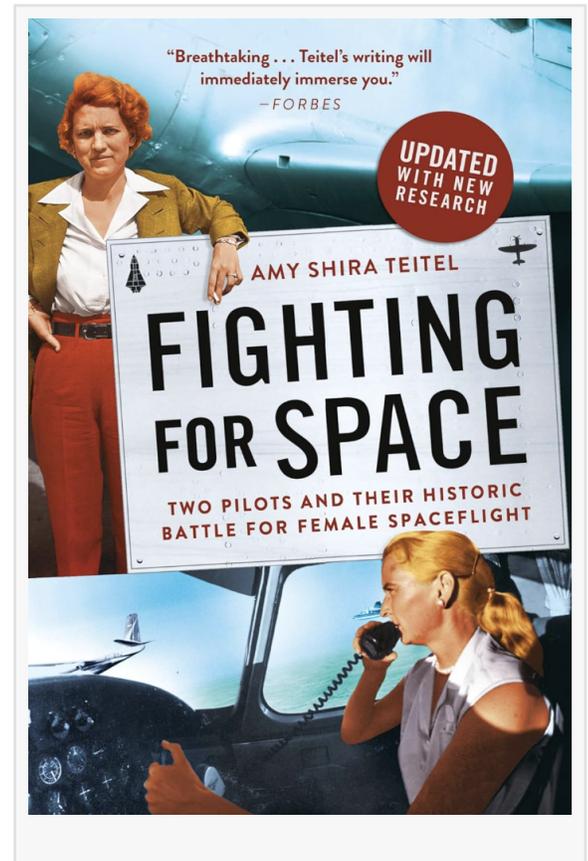
Objects in orbit also slowly fall toward Earth due to thin atmospheric drag. Without regular boosts, like those used to maintain the ISS’s altitude, satellites lose altitude and eventually reenter the atmosphere. Not all reentries are controlled. Skylab, NASA’s first space station, reentered on July 11, 1979, scattering debris across Western Australia, including an oxygen tank and a titanium sphere that survived the fall.

Inactive satellites in higher orbits decay slowly, sometimes over centuries. When collisions occur, even between small fragments, they generate additional debris. This cascading chain reaction increases the overall density of space junk and raises the risk for every future mission.

“It’s a compounding issue,” Teitel says. “More satellites create more chances for collisions, and every collision produces more debris. Without intervention, the cycle continues indefinitely.”

As global reliance on satellites grows, from communications and navigation to weather forecasting and scientific research, the urgency to find solutions increases as well. Teitel highlights the importance of active debris removal, responsible satellite disposal, and sustainable launch practices to protect long-term access to space.

Asteroids also contain valuable metals, and some startups view them as a cleaner alternative to mining on Earth, though the technology for these missions isn’t quite available yet. California-based TransAstra is developing an inflatable “Capture Bag” designed to collect everything from small fragments to massive boulders. The company says the same technology could also help remove human-made space junk, a problem increasingly worrying researchers and policymakers.



Teitel concludes, "If we treat orbital cleanup as essential rather than optional, we can preserve space as a resource for future generations."

About Amy Shira Teitel

Amy Shira Teitel is a respected spaceflight historian, author, and multimedia science communicator known for bringing the human stories and engineering breakthroughs of early space exploration to life. She is the creator and host of Vintage Space, a long-form educational YouTube channel with in-depth videos on historic missions, forgotten programs, and the technological evolution that shaped the space age.

Teitel is the author of [Breaking the Chains of Gravity: The Story of Spaceflight before NASA](#) and [Fighting for Space: Two Pilots and Their Historic Battle for Female Spaceflight](#), two critically acclaimed books that examine the origins of American rocketry and the pioneering women who helped build the aerospace industry.

She recently relaunched her second YouTube channel, offering casual, commentary-driven videos that explore modern topics through a historical lens.

The Vintage Space (long-form history of science documentaries):
https://www.youtube.com/channel/UCw95T_TgbGHhTml4xZ9ylqg

Amy Shira Teitel (casual commentary channel):
<https://www.youtube.com/channel/UCI4d0-14--9UP5RkfefBtZw>

For more information about Teitel and her groundbreaking work, click here:
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