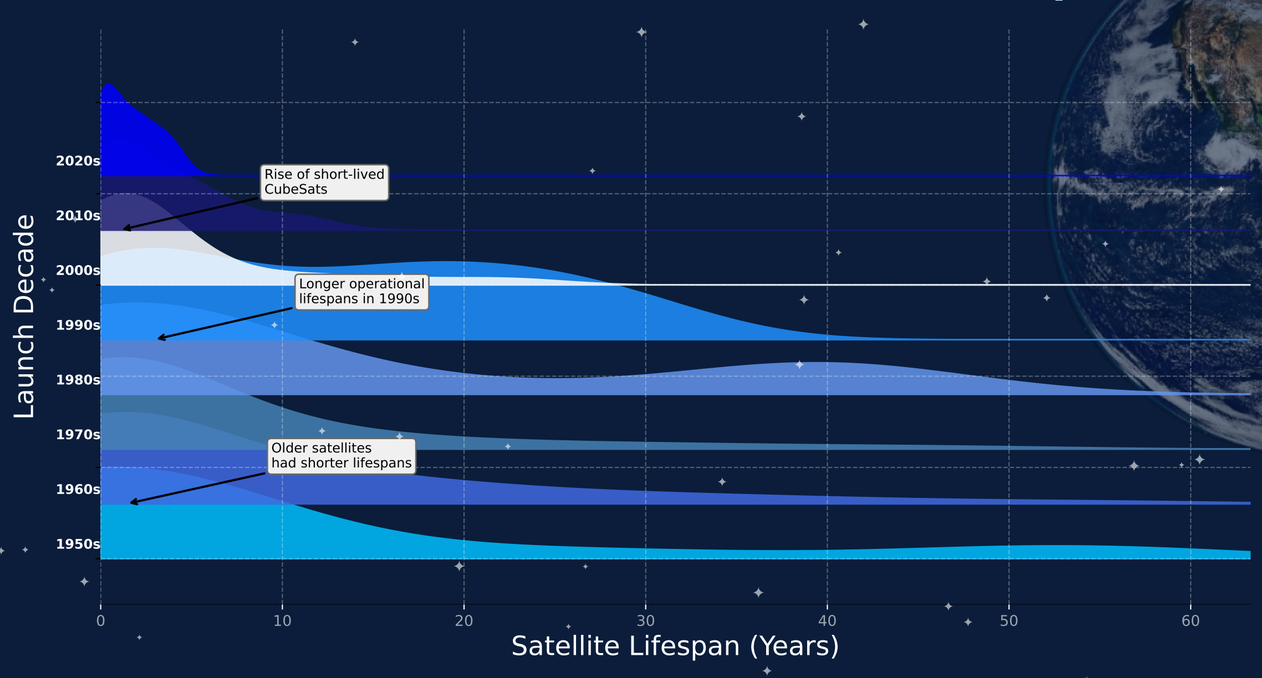
Satellite Lifespan and Decommissioning

Trends and Impacts on Space Sustainability

Satellites power communication, navigation, and science. But they don't last forever. This infographic explores how long satellites operate, whether they're responsibly retired, and how different orbits are impacted by growing space traffic.

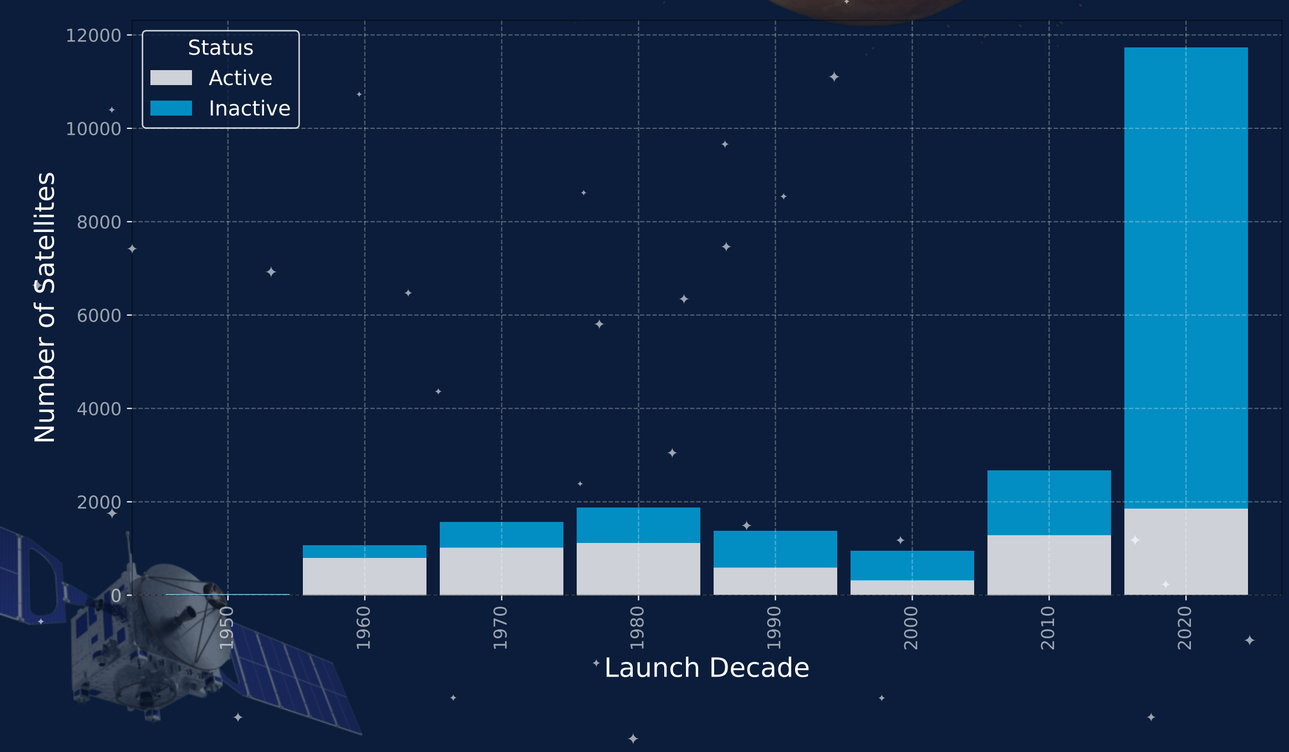
How Satellite Lifespans Have Changed Over Decades



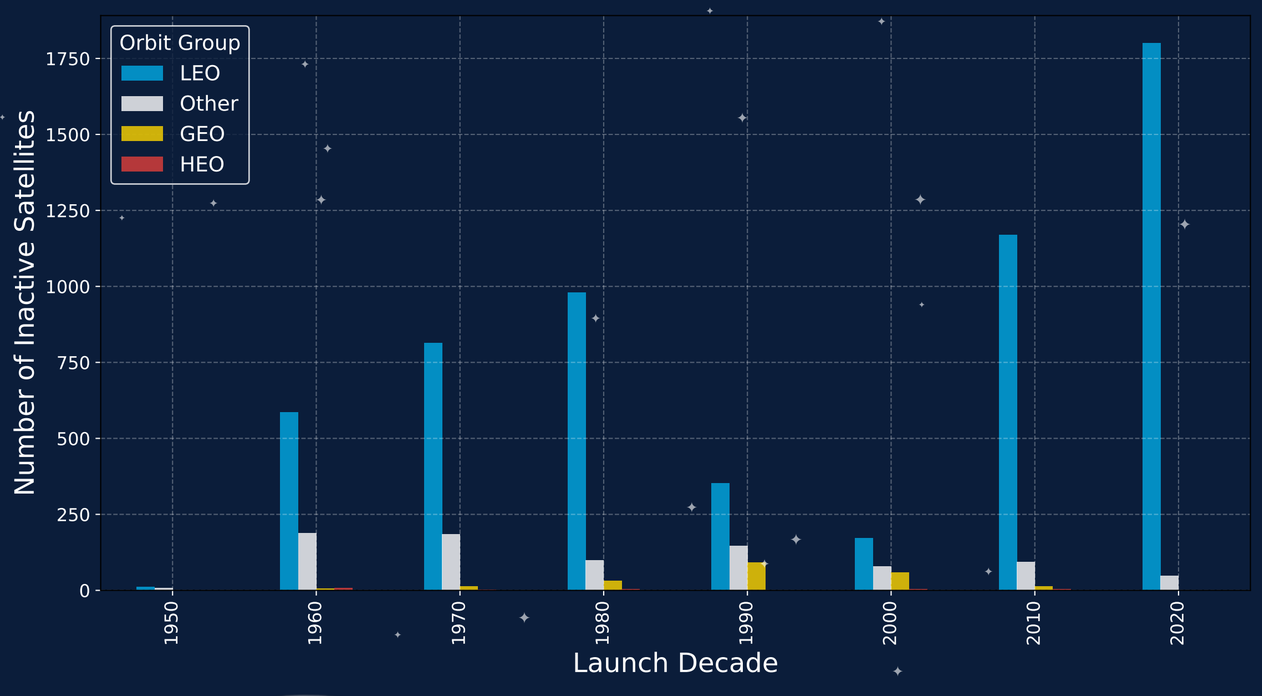
Satellite lifespans have changed over time.
Early satellites lasted only a few years, but by the 1990s,better technology meant they stayed active much longer.Recently, the rise of small, low-cost satellites like CubeSatshas led to shorter lifespans again—raising concerns aboutgrowing space clutter and long-term sustainability.

Are Satellites Being Retired Responsibly?

Most satellites are never removed after they stop working.
While launches have increased each decade, so has the number of inactive satellites left behind.
Many older satellites—especially from the 1990s and 2000s—weren't designed to safely deorbit, adding to the growing clutter in space.



Where Are Decommissioned Satellites Left Behind?



Most retired satellites stay in low Earth orbit (LEO).
As more small satellites and mega-constellations are launched, LEO is becoming crowded—not just with working satellites, but also with space junk.
If this isn't managed, it could threaten future missions.

The Future of Space Depends on What We Leave Behind

Satellites have transformed our world—but they don’t last forever. As we launch more into orbit, we also leave more behind. Without responsible planning, space could become too crowded and dangerous for future missions. Protecting space today means we can keep exploring tomorrow.