LeoPulse

LEOLABS

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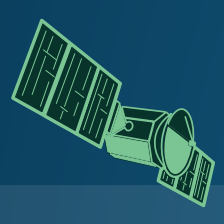
In 2019, 800 functional satellites were operating in low Earth orbit (LEO), now there are over 5,000. LeoPulse is your guide to this rapidly changing environment — providing crucial data and expert analysis to help uncover the challenges and solutions for today's dynamic space era.

Tidying up: the three pillars to cleaning up space

Space safety and sustainability are complicated topics with tough questions — but there's one that matters most: **how do we keep space clean?** To answer that question, we must understand that there are **two types of human-made objects** residing in LEO:

Objects that serve a current purpose... and objects that don't, known as "space junk."

There's a lot of space junk in LEO. To maintain a safe operating environment, we need Collision Avoidance, Debris Mitigation, and Debris Remediation.



COLLISION AVOIDANCE

"Watch where you're going and don't collide with anything"

Collision Avoidance means taking an active approach in ensuring satellites don't collide with other objects. We do this every time we drive a car; satellite owner-operators do it too. This is also tied to Space Traffic Management, which is only effective if a satellite is both operational and maneuverable, like a car on the road.

DEBRIS MITIGATION

"Don't leave a mess in orbit"

You wouldn't leave your rusty old car on the highway, would you? The same idea goes for objects in space. Debris mitigation means taking steps to prevent the creation of future debris. Examples include de-orbiting satellites as soon as possible after a completed mission.

DEBRIS REMEDIATION

"Remove existing junk, especially objects that pose the greatest risk"

Leaving a broken-down semitruck on a busy highway for decades is probably not the best idea, right? The same goes for in space. Debris remediation refers to removing existing debris from orbit, specifically those that pose the greatest risk — like rocket bodies. Luckily, Active Debris Removal technologies are poised to tackle this problem.

We're bringing clarity to the dynamic space era. **Join us.**

Reference note: The findings shared in this infographic are derived from the hundreds of thousands of data products LeoLabs' global network of phased array radars collect daily, as well as the analysis and insights pulled together by our team of experts. For specific reference information, please email us.

About LeoLabs: LeoLabs is transforming the way satellite operators, commercial enterprises, and federal agencies across the world launch and track missions in low Earth orbit. Through its vertically integrated Vertex™ system, LeoLabs delivers the information superiority needed to succeed in today's space race.

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For more information, please email us at **contact@leolabs.space**