



Skeleton Resolution – UNOOSA Committee

Topic: The issue of proliferation of space debris

Overview:

Humans have a bad habit of leaving a trail of junk in our wake and with human activity in space at an all-time high, this problem has extended to outer space.

With every satellite launched into space since 1957, a trail of potential waste has followed. Once they've served their use, dead satellites have nowhere to go but to continue their orbits while smaller debris gets chipped off their bodies.

What is space debris?

Space junk, or space debris, is any piece of machinery or debris left by humans in space.

It can refer to big objects such as dead satellites that have failed or been left in orbit at the end of their mission. It can also refer to smaller things, like bits of debris or paint flecks that have fallen off a rocket.



How does space debris get into space?

All space junk is the result of us launching objects from Earth, and it remains in orbit until it re-enters the atmosphere.

Some objects in lower orbits of a few hundred kilometers can return quickly. They often re-enter the atmosphere after a few years and, for the most part, they'll burn up - so they don't reach the ground. But debris or satellites left at higher altitudes of 36,000 kilometers - where communications and weather satellites are often placed in geostationary orbits - can continue to circle Earth for hundreds or even thousands of years.

Harmful Effects of Space Debris:



Collision Hazard: Space debris travels at incredibly high speeds, making even a small fragment can be a significant collision threat. When space debris collides with operational satellites, spacecraft, or the International Space Station (ISS), it can cause extensive damage or destruction, rendering expensive assets inoperable.

Economic Impact: Space debris collisions can lead to the loss of valuable satellites and spacecraft, resulting in substantial financial losses. Replacing and relaunching satellites can cost hundreds of millions or even billions of dollars.

Disruption of Services: Collisions with space debris can disrupt essential services provided by satellites, including communication, weather forecasting, Earth observation, navigation, and scientific research. Such disruptions can have wide-ranging societal impacts.

Space Pollution: The increasing amount of space debris contributes to space pollution, making it more challenging for future space missions and activities. It limits the accessibility and long-term sustainability of space exploration and utilization.

Safety Concerns: Space debris collisions pose safety risks to astronauts aboard the ISS and potentially to future crewed missions. Even small debris impacts can breach spacecraft walls, endangering the lives of astronauts.

How can we clean up space debris?

Cleaning up space debris is a complex and challenging task due to the large number of objects in orbit and the vastness of space. Space debris includes defunct satellites, spent rocket stages, and other fragments of previous missions.

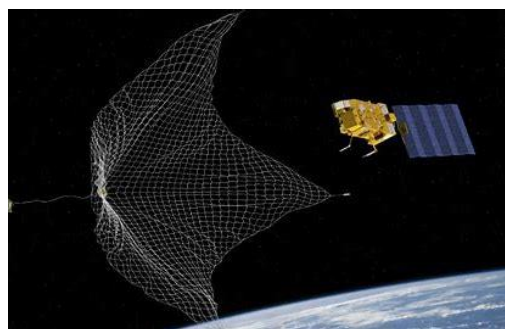
Some helpful links:

[Cleaning the orbit: Five ways to get rid of space debris - Ecofriend](#)

[9 Concepts for Cleaning Up Space Junk \(treehugger.com\)](#)

[We have a space debris problem. Here's how to solve it | World Economic Forum \(weforum.org\)](#)

[Latest News About Space Junk and Orbital Debris | Space Debris Removal | Efforts to Reduce Threat of Orbital Collisions](#)



Points to consider:

International Collaboration: with problems that can affect any country it is vital to pool, resources along with sharing expertise, and fostering mutual trust. Only with these partnerships can we pave the way for advancements in scientific research and technological innovations.

Regulations and Guidelines: Discuss and potentially draft resolutions or recommendations related to creating or strengthening international regulations and guidelines for responsible space activities, satellite design, and end-of-life disposal.

Funding: Address the financial aspects of space debris removal. Delegates should consider how to allocate funds for cleanup.

Space Traffic Management: Explore ways to enhance space situational awareness and traffic management to prevent collisions and minimize the creation of new debris.