

# Lots of space junk is circling our planet at high speeds

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Dr. William Schonberg says academia is cool because you usually get to research what you're really curious about. As chair of civil, architectural and environmental engineering at Missouri University of Science and Technology, Schonberg, when he has time, likes to study high-speed impacts - specifically, those that could be caused by space debris.

Schonberg was a member of a National Research Council committee that recently issued a 180-page report warning about the dangers of [space debris](#).

One of the first "hits" was on a [space shuttle](#) in the early eighties, when a very small piece of paint hit one of its windows. Now, low-Earth orbit is becoming increasingly cluttered by trash.

The large stuff -- [rocket boosters](#) and so on -- typically ends up falling back down and burning up in the atmosphere. But smaller projectiles continue to race around the planet and cause problems for astronauts and engineers. Schonberg studies the amount of damage that could be caused by potential impacts.

"We can track almost anything four inches in diameter and larger," says Schonberg, who first got involved in this type of research at the University of Alabama in Huntsville, which is located near NASA's Marshall Space Flight Center. "There are risk assessments performed before each [NASA mission](#)."

In recent years, evasive actions to avoid such projectiles in space have been more common.

As more and more rockets, shuttles and satellites have been launched, low-Earth orbit has been polluted by junk. In addition to high-tech stuff that is just left in orbit, even frozen human waste that was jettisoned years ago poses problems. "We're talking about projectiles that travel at around 18,000 miles per hour," Schonberg says.

And that's to say nothing of potentially even more dangerous natural objects, like meteorites and asteroids.

Of course, with the end of the U.S. [shuttle program](#), not as many American astronauts will be put in harm's way. But the [International Space Station](#) is still colonized, and Schonberg thinks humans will continue to explore space. "I hope so," he says. "It's human nature to explore."

In the meantime, scientists will have to continue to monitor space junk closely. It's not currently plausible from a cost perspective to clean up all the stuff circling our planet.

Provided by Missouri University of Science and Technology

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