

COSMOS: Satellite went up, must come down

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There is a 1-in-22 trillion chance that you'll be struck by a large piece of satellite on Friday.

A defunct NASA weather satellite is expected to tumble back into the atmosphere and plummet to Earth, presumably Friday afternoon, eastern time. The Upper Atmosphere Research Satellite was launched in 1991 by Space Shuttle Discovery and since has orbited the Earth more than 78,000 times. The device, which measured the upper atmosphere for different chemicals, was decommissioned six years ago.

Since then, the 13,000-lbs. bus-sized satellite has floated around space. Because of its size and its chances of slamming into something else orbiting the Earth, NASA officials have prepped it to blaze across the sky.

But officials don't know exactly when or where it will land. As of Wednesday, NASA estimated the satellite would land somewhere in the Pacific Ocean near Asia, and has little chance of entering the sky over North America.

Predictions will change as NASA continues to track the satellite, which can be seen from time-to-time in the night sky, depending on its orbit speed. About two hours before it crashes to Earth, astronomers might have an idea where it will hit, give or take a couple hundred square miles.

"It has got solar panels and it's flying through space and it is beginning to drag through the earth's atmosphere," said Tyler Nordgren, a physics and astronomy professor at the University of Redlands. "It can start tumbling and turning."

Those movements, at hundreds of miles per second, can drastically change its course.

Odds are that most of it will incinerate as it blasts through the atmosphere and any pieces that do make it to the ground will likely land in the oceans, which make up 70 percent of the planet's surface.

If people are lucky, they might get a glimpse of it, officials and astronomers said.

"If you should get so lucky, look up and enjoy," said Bob Stephens, an amateur astronomer and asteroid researcher, who operates the Center for Solar System Studies observatory in Landers, north of Joshua Tree.

Since it can crash anywhere, chances are slim anyone in the Inland area will see the large fireball astronomers predict. Even during daylight, officials expect the flaming re-entry to be visible with the naked eye.

This isn't the first time a man-made object's flaming return has captivated sky watchers. Crowds in 1979 were on the lookout for NASA's first space station, Skylab, as it crashed into the atmosphere. Pieces of the station rained

down on the Indian Ocean and western Australia.

The sight of shooting stars and other objects entering earth's atmosphere can be mesmerizing.


"One of the prettiest things I ever saw was a meteor," Nordgren said. "I just looked up and I saw this shooting thing in the sky, breaking into pieces."

The meteor actually turned out to be famous, as thousands of people on the East Coast saw the Peekskill Meteor in 1992. A piece of it actually crashed into the trunk of a car, leaving a huge dent.

But the risk of getting whacked by cosmic debris is so small, no one should worry, officials said. You're more than 100,000 times more likely to win the Powerball lottery.

In recorded history, only one injury from space debris has been confirmed in the U.S.

"A woman in 1947, an asteroid crashed through her roof and hit her in the hip and gave her a good bruise," Stephens said..

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