

# NASA satellite to crash into Earth Friday

September 23 2011, by Kerry Sheridan

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An image provided by NASA shows an illustration of the Upper Atmosphere Research Satellite (UARS), which was launched in 1991. Fragments from the six-ton NASA satellite are hurtling towards Earth, while the exact site of the crash-landing remain a mystery into the final hours.

A six-ton satellite hurtled toward Earth on Friday, and NASA admitted it had little idea where the biggest piece of US space junk in 30 years will crash into the planet.

Parts that survive the fiery re-entry into Earth's atmosphere may weigh as little as two pounds (one kilogram) or as much as 350 pounds (158 kilograms), NASA said, and the debris field is expected to span 500 miles (800 kilometers).

NASA stressed that the risk is "extremely small" that any of the 26 fragments expected to survive re-entry would hit any of the planet's

seven billion people.

"The chances that you (yes, I mean YOU) will be hit by a piece of the #UARS satellite today are one in several trillion. Very unlikely," NASA said in a message on the microblogging site Twitter.

The satellite is expected to re-enter Earth's atmosphere "sometime during the afternoon or early evening of Sept. 23, Eastern Daylight Time," NASA said in its most recent update.

"It is still too early to predict the time and location of re-entry with any more certainty, but predictions will become more refined in the next 24 hours."

The Upper Atmosphere Research Satellite (UARS) was not expected to fall over North America, NASA added. And given that the world is 70 percent water, an ocean landing was considered likely.

Orbital debris scientists say the pieces will fall somewhere between 57 north latitude and 57 south latitude, which covers most of the populated world.

The influence of solar flares and the tumbling motion of the satellite make it difficult to narrow down the location, experts said, as the Internet lit up with rumors of where and when it would fall.

The US Department of Defense and NASA were busy tracking the debris and keeping all federal disaster agencies informed, a NASA spokeswoman said.

The Federal Aviation Administration issued a notice Thursday to pilots and flight crews of the potential hazard, and urged them to report any falling space debris and take note of its position and time.

Orbital debris experts say space junk of this size from broken-down satellites and spent rockets tends to fall back to Earth about once a year, though this is the biggest NASA satellite to fall in three decades.

NASA's Skylab crashed into western Australia in 1979.

The surviving chunks of the tour-bus sized UARS, which launched in 1991, will likely include titanium fuel tanks, beryllium housing and stainless steel batteries and wheel rims.

NASA has also said that in 50 years of space exploration no one has ever been confirmed injured by falling space junk.

"No consideration ever was given to shooting it down," NASA spokeswoman Beth Dickey said.

The craft contains no fuel and so is not expected to explode on impact, and NASA also said on Twitter that talk of "flaming space debris" is a "myth."

"Pieces of UARS landing on Earth will not be very hot. Heating stops 20 miles up, cools after that," NASA said.

However the US space agency has warned anyone who comes across what they believe may be UARS debris not to touch it but to contact authorities for assistance.

Space law professor Frans von der Dunk from the University of Nebraska-Lincoln told AFP that the United States will likely have to pay damages to any country where the debris falls.

"The damage to be compensated is essentially without limit," von der Dunk said, referring to the 1972 Liability Convention to which the

United States is one of 80 state signatories.

"Damage here concerns 'loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organizations,'" he said, reading from the agreement.

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