

Scientist: Satellite must have crashed into Asia

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Undated artist rendering provided by EADS Astrium shows the scientific satellite ROSAT. Andreas Schuetz, a spokesman for the German Aerospace Center, said Saturday Oct. 22, 2011 the best estimate is still that the ROSAT scientific research satellite will impact sometime between late Saturday and Sunday 1200 GMT. (AP Photo/EADS Astrium)

A defunct German research satellite <u>crashed into the Earth</u> somewhere in Southeast Asia on Sunday, a U.S. scientist said - but no one is still quite sure where.

Most parts of the minivan-sized ROSAT research satellite were expected to burn up as they hit the atmosphere at speeds up to 280 mph (450 kph), but up to 30 fragments weighing a total of 1.87 tons (1.7 metric tons) could have crashed, the German Aerospace Center said.

Jonathan McDowell of the Harvard-Smithsonian Center for Astrophysics



in Cambridge, Massachusetts, said the satellite appears to have gone down over Southeast Asia. He said two Chinese cities with millions of inhabitants each, Chongqing and Chengdu, had been in the satellite's projected path during its re-entry time.

"But if it had come down over a populated area there probably would be reports by now," the astrophysicist, who tracks man-made <u>space</u> objects, told The Associated Press in a telephone interview.

Calculations based on U.S. military data indicate that <u>satellite debris</u> must have crashed somewhere east of Sri Lanka over the Indian Ocean, or over the Andaman Sea off the coast of Myanmar, or further inland in Myanmar or as far inland as China, he said.

The satellite entered the atmosphere between 0145 GMT to 0215 GMT Sunday (9:45 p.m. to 10:15 p.m. Saturday EDT) and would have taken 15 minutes or less to hit the ground, the German Aerospace Center said. Hours before the re-entry, the center said the satellite was not expected to land in Europe, Africa or Australia.

There were no immediate reports from Asian governments or space agencies about the fallen satellite.

The satellite used to circle the planet in about 90 minutes, and it may have traveled several thousand kilometers (miles) during its re-entry, rendering exact predictions of where it crashed difficult.

German space agency spokesman Andreas Schuetz said a falling satellite also can change its flight pattern or even its direction once it sinks to within 90 miles (150 kilometers) above the Earth.

Schuetz said the agency was waiting for data from scientific partners around the globe. He noted it took the U.S. <u>space agency</u> NASA several



days to establish where one of its satellites had hit last month.

The 2.69-ton (2.4 metric ton) scientific ROSAT satellite was launched in Cape Canaveral, Florida, in 1990 and retired in 1999 after being used for research on black holes and neutron stars and performing the first all-sky survey of X-ray sources with an imaging telescope.

ROSAT's largest single fragment that could have hit is the telescope's heavy heat-resistant mirror.

"The impact would be similar to, say, an airliner having dropped an engine," said McDowell. "It would damage whatever it fell on, but it wouldn't have widespread consequences."

A dead NASA <u>satellite</u> fell into the southern Pacific Ocean last month, causing no damage but spreading debris over a 500-mile (800-kilometer) area.

Since 1991, space agencies have adopted new procedures to lessen space junk and having satellites falling back to Earth. NASA says it has no more large satellites that will fall back to Earth uncontrolled in the next 25 years.

More information: The German space agency on ROSAT: <u>http://bit.ly/papMAA</u>

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