

Record space junk cloud could threaten ISS: report

October 25 2012

The explosion of a failed Russian rocket upper stage has created a space junk cloud of 500 pieces which could threaten the International Space Station, a report said Thursday.

In one of the biggest [orbital debris](#) incidents of recent years the Briz-M rocket stage exploded in mid-October, two months after causing a key launch of telecom satellites to fail in the latest embarrassing mishap for the embattled Russian space programme.

"Right now there are about 500 pieces of debris that were created after the Briz-M upper stage broke apart," a source in the space industry told Interfax news agency.

The cloud "has been added to the list of potentially dangerous objects" for the ISS, the source added.

The ISS has in the past had to fire engines and use up precious fuel to change orbit and move away from potential space junk collisions.

The Briz-M is used with Russia's Proton rockets and weighs up to 22.5 tonnes without fuel, according to its creator the Khrunichev construction bureau.

Its entire production line went under high-profile inspection after the failed launch in August, which caused the firing of Khrunichev head Vladimir Nesterov amid a public dressing-down from Prime Minister

Dmitry Medvedev.

Space junk on the lower-Earth orbit is a constant problem for the ISS, which is currently travelling about 414 kilometres (257 miles) above the Earth.

The current break-up creates a major potential headache for the ISS controllers, since even small pieces from rockets launched decades earlier can cripple satellites because they orbit at very high speeds.

According to a specialist unit of NASA that tracks orbital debris, there are more than 21,000 pieces of junk bigger than 10 centimetres (four inches) across.

The main source of the problem is satellites or upper stages of failed rocket launchers like the Briz-M which still hold fuel and explode while whirling in orbit.

Two events—the deliberate testing of an anti-satellite weapon by China in 2007 and the accidental collision of US and Russian communications satellites in 2009—added two major debris fields in recent years.

(c) 2012 AFP

Citation: Record space junk cloud could threaten ISS: report (2012, October 25) retrieved 25 April 2024 from <https://phys.org/news/2012-10-space-junk-cloud-threaten-iss.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.