

Russia's Soyuz: historic symbol of space reliability

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Russia's Soyuz rocket, which failed to put a Russian supply ship into orbit, is descended from launch vehicles of the early days of the space race but until now has been a byword for reliability.

The Soyuz is related to the R-7 family of Soviet rockets which sent the world's first satellite Sputnik into space in 1957, giving Moscow the lead in the Cold War space race.

An R-7 descendant -- the Vostok designed by chief Soviet rocket engineer Sergei Korolyev -- took [Yuri Gagarin](#) into orbit in 1961, making him the first man in space.

Another variant, Voskhod (Dawn) was used up the 1970s for hundreds of launches.

The Soyuz (Union) rocket was first launched in the 1960s and since then has developed an enviable record for safety and reliability.

The crash landing of the unmanned Progress supply capsule into Siberia was its first failure of the rocket in recent years.

Soyuz rockets are the backbone of the Russian space programme and are notably used to launch the unmanned Progress cargo vehicles as well as the manned capsules -- also called Soyuz -- for the ISS.

The rocket involved in the Siberia crash was the Soyuz-U. Russia's

manned missions to the [International Space Station](#) (ISS) are now carried out by the Soyuz-FG, a modernised version of the Soyuz-U

The newest version is the Soyuz-2, used to place heavy payloads into low earth orbits.

The Soyuz-U has been one of the workhorses of the Russian space programme for years and has been in use since the 1970s.

According to the Russian daily Kommersant, the Soyuz-U has suffered 21 faulty launches out of 769 starts. The Soyuz family of rockets is the world's most used [space launch](#) vehicle.

A Soyuz-ST, a spinoff of the Soyuz-2 is due to launch at Kourou, French Guiana on October 20, lifting the first two satellites in Europe's Galileo navigation system.

The [European Space Agency](#) (ESA) and Russia are deploying Soyuz at Kourou, under a 2003 accord to provide a mid-sized launcher for Arianespace, which markets ESA's launch vehicles.

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