

Roscosmos: Russian spacecraft leak caused by external impact

February 21 2023, by Vladimir Isachenkov



This undated handout photo released by Roscosmos State Space Corporation shows A Russian spacecraft is docked at the International Space Station (ISS). The Russian space corporation Roscosmos said Tuesday, Feb. 21, 2023 that Russia will extend its participation in the International Space Station until 2028. Credit: Sergei Korsakov, Roscosmos State Space Corporation via AP

A coolant leak from an uncrewed Russian supply ship docked at the International Space Station resulted from an external impact and not a manufacturing flaw, Russia's space corporation said Tuesday.

The [leak](#) from the Progress MS-21 cargo ship was spotted on Feb. 11 and followed a similar leak from a Soyuz crew capsule in December.

Russian [space](#) officials said that December's leak was caused by a tiny meteoroid that left a small hole in the exterior radiator and sent coolant spewing into space. But the new leak from another ship raised doubts about that theory, and Russia's state space corporation Roscosmos launched a probe into the incident to check whether it could have resulted from a manufacturing defect.

NASA said its specialists were assisting their Russian counterparts in the troubleshooting of the leak.

Following checks at Russian space factories and launch facilities and a close inspection of the cargo ship before it was dumped, Roscosmos concluded that the latest leak resulted from an "external impact" similar to the one that caused December's leak from the Soyuz crew capsule. On Tuesday, Roscosmos posted a close shot of the Progress MS-21 showing a 12-millimeter (0.5-inch) hole in its external radiator, which it said hadn't been spotted before.



This undated handout photo released by Roscosmos State Space Corporation shows the International Space Station (ISS). The Russian space corporation Roscosmos said Tuesday, Feb. 21, 2023 that Russia will extend its participation in the International Space Station until 2028. Credit: Roscosmos State Space Corporation via AP, File

After ruling out the manufacturing flaw, Roscosmos cleared the launch of a new Soyuz crew capsule that should replace the damaged one.

Russian Cosmonauts Sergey Prokopyev and Dmitri Petelin, and NASA astronaut Frank Rubio were supposed to ride the Soyuz they used to arrive at the [station](#) to return to Earth in March, but Russian space officials decided that higher temperatures resulting from the coolant leak could make it dangerous to use and it will return to Earth next month

without a crew.

Roscosmos announced that the new Soyuz MS-23 capsule to replace it will be launched in automatic mode on Friday and dock at the station on Sunday.

Since it will travel in uncrewed mode to expedite the launch, a replacement crew will now have to wait until another Soyuz capsule is ready, meaning that Prokopyev, Petelin and Rubio will have to stay at the station until September, pushing their mission to close to a year.

NASA has said it took part in all the discussions and agreed with the plan.



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Besides Prokopyev, Petelin and Rubio, the [space station](#) is home to NASA astronauts Nicole Mann and Josh Cassada; Russian Anna Kikina; and Japan's Koichi Wakata. The four rode up on a SpaceX [capsule](#) last October.

Roscosmos also announced Tuesday that Russia will extend its participation in the International Space Station until 2028, reversing last year's statement from Roscosmos chief Yuri Borisov who said that Russia was planning to leave the station after 2024 and to focus on building its own orbiting outpost.

The International Space Station, which has served as a symbol of post-Cold War international cooperation, is now one of the last remaining areas of cooperation between Russia and the West amid the tensions over Moscow's [military action](#) in Ukraine.

NASA and its partners hope to continue operating the International Space Station until 2030.

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