Russia will launch new capsule to return space station crew

January 11 2023, by VLADIMIR ISACHENKOV and MARCIA DUNN

The photo provided by NASA shows the Soyuz MS-22 crew ship pictured on Oct. 8, 2002, in the foreground docked to the Rassvet module as the International Space Station orbited 264 miles above Europe. In the background, is the Prichal docking module attached to the Nauka multipurpose laboratory module. Russian space corporation Roscosmos said Wednesday, Jan. 11, 2023 that it will launch a new spacecraft to take some of the International Space Station's crew back to Earth after their capsule was damaged and leaked coolant.Credit: NASA via AP

Russia will send up a new capsule next month to bring back three space station crew members whose original ride home was damaged, officials said Wednesday.

The two Russians and one American will stay several extra months at the International Space Station as a result of the capsule switch, possibly pushing their mission to close to a year, NASA and Russian space officials told reporters.

Cosmonauts Sergey Prokopyev and Dmitri Petelin, and astronaut Frank Rubio were supposed to return in March in the same Soyuz capsule that took them up last September. But that capsule was hit by a tiny meteoroid on Dec. 14, creating a small hole in the exterior radiator and sending coolant spewing into space.

Sergei Krikalev, head of human spaceflight for the Russian Space Agency, said barring an emergency at the space station, it would be too dangerous for the crew to use that capsule to return to Earth.

Although Russian engineers believe the capsule could survive reentry and land safely, the cabin temperature could reach the low 40s Celsius (over 100 degrees Fahrenheit) with high humidity because it couldn't shed heat generated by a computer and other electronics, noted Krikalev, a former cosmonaut.

NASA astronaut Frank Rubio, right, Roscosmos cosmonauts Sergey Prokopyev, center, and Dmitri Petelin, members of the main crew to the International Space Station (ISS), greet their relatives and friends in front of a bus prior the launch of Soyuz-2.1 rocket at the Russian leased Baikonur cosmodrome, Kazakhstan, Sept. 21, 2022. Russian space corporation Roscosmos said Wednesday, Jan. 11, 2023 that it will launch a new spacecraft to take some of the International Space Station's crew back to Earth after their capsule was damaged and leaked coolant Credit: AP Photo/Dmitri Lovetsky, File

The new Soyuz capsule will be launched from Kazakhstan on Feb. 20, a month earlier than planned. No one will be on board; the capsule will fly in automatic mode, Russian Space Agency chief Yuri Borisov announced earlier in the day. The original plan was to launch this new Soyuz in March with two Russians and one American, replacements for

the three already up there. This new crew will now have to wait until late summer or fall to fly when another capsule is ready for them.

Russia will eventually bring back the damaged capsule with only science samples on board.

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

"Right now, the crew is safe on board space station," said NASA's space station program manager Joel Montalbano. "There's no immediate need for the crew to come home today."

In this handout photo released by Roscosmos State Space Corporation, a view of the International Space Station taken on March 30, 2022 by crew of Russian Soyuz MS-19 space ship after undocking from the Station. Russia's space

corporation Roscosmos said Monday Dec. 19, 2022 that a coolant leak from a Russian space capsule attached to the International Space Station doesn't require evacuation of its crew, but held the door open for launching a replacement capsule if needed. Credit: Roscosmos State Space Corporation via AP, File

This handout photo taken by Russian cosmonaut Sergei Korsakov and released by Roscosmos State Space Corporation on Wednesday, Jan. 11, 2023, shows a Soyuz capsule of the International Space Station (ISS). Russian space corporation Roscosmos said Wednesday that it will launch a new spacecraft to take some of the International Space Station's crew back to Earth after their capsule was damaged and leaked coolant. Credit: Sergei Korsakov, Roscosmos State Space Corporation via AP, File

This handout photo taken by Russian cosmonaut Sergei Korsakov and released by Roscosmos State Space Corporation on Wednesday, Jan. 11, 2023, shows a Soyuz capsule of the International Space Station (ISS). Russian space corporation Roscosmos said Wednesday that it will launch a new spacecraft to take some of the International Space Station's crew back to Earth after their capsule was damaged and leaked coolant. Credit: Sergei Korsakov, Roscosmos State Space Corporation via AP, File

Backup plans are in the works, according to Montalbano and Krikalev, in case an emergency forces the seven space station residents to flee before the new Soyuz can be launched—like a fire or decompression. NASA is looking at the possibility of adding extra crew to the SpaceX capsule currently docked at the station.

Neither Krikalev nor Montalbano could recall a similar case in which a substitute spacecraft needed to be quickly launched.

Borisov said analysis confirmed the leak was caused by a micrometeoroid, not a piece of spacecraft debris or manufacturing defect. The resulting hole was about 1 millimeter in size or less than one-tenth of an inch.

Montalbano said the three crew members took the news in stride.

"I may have to find some more ice cream to reward them" on future cargo deliveries, he told reporters.

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.