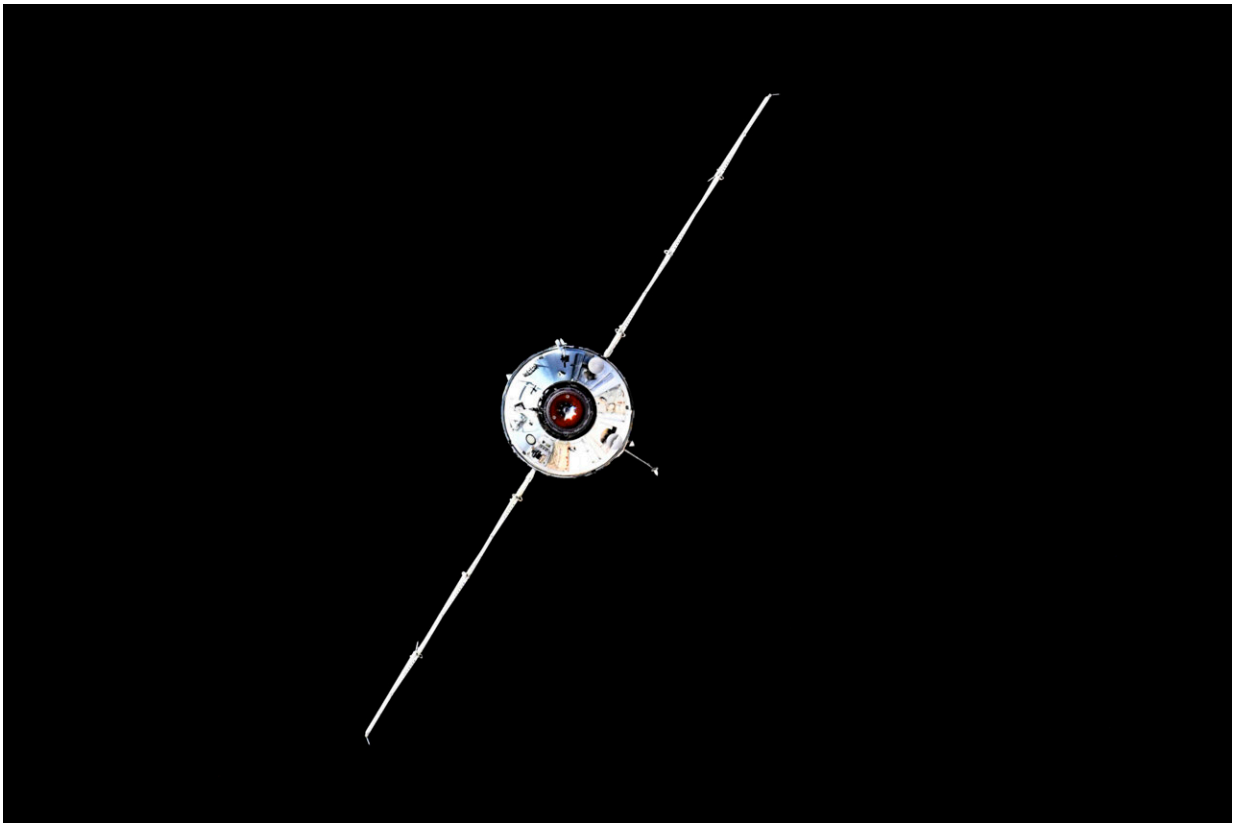


Russia blames space station lab incident on software failure

July 30 2021, by Daria Litvinova



In this photo taken by Russian cosmonaut Oleg Novitsky and provided by Roscosmos Space Agency Press Service, the Nauka module is seen prior to docking with the International Space Station on Thursday, July 29, 2021. The newly arrived Russian science lab briefly knocked the International Space Station out of position Thursday when it accidentally fired its thrusters. For 47 minutes, the space station lost control of its orientation when the firing occurred a few hours after docking, pushing the orbiting complex from its normal configuration. The station's position is key for getting power from solar panels

and or communications. Communications with ground controllers also blipped out twice for a few minutes. Credit: Roscosmos Space Agency Press Service photo via AP

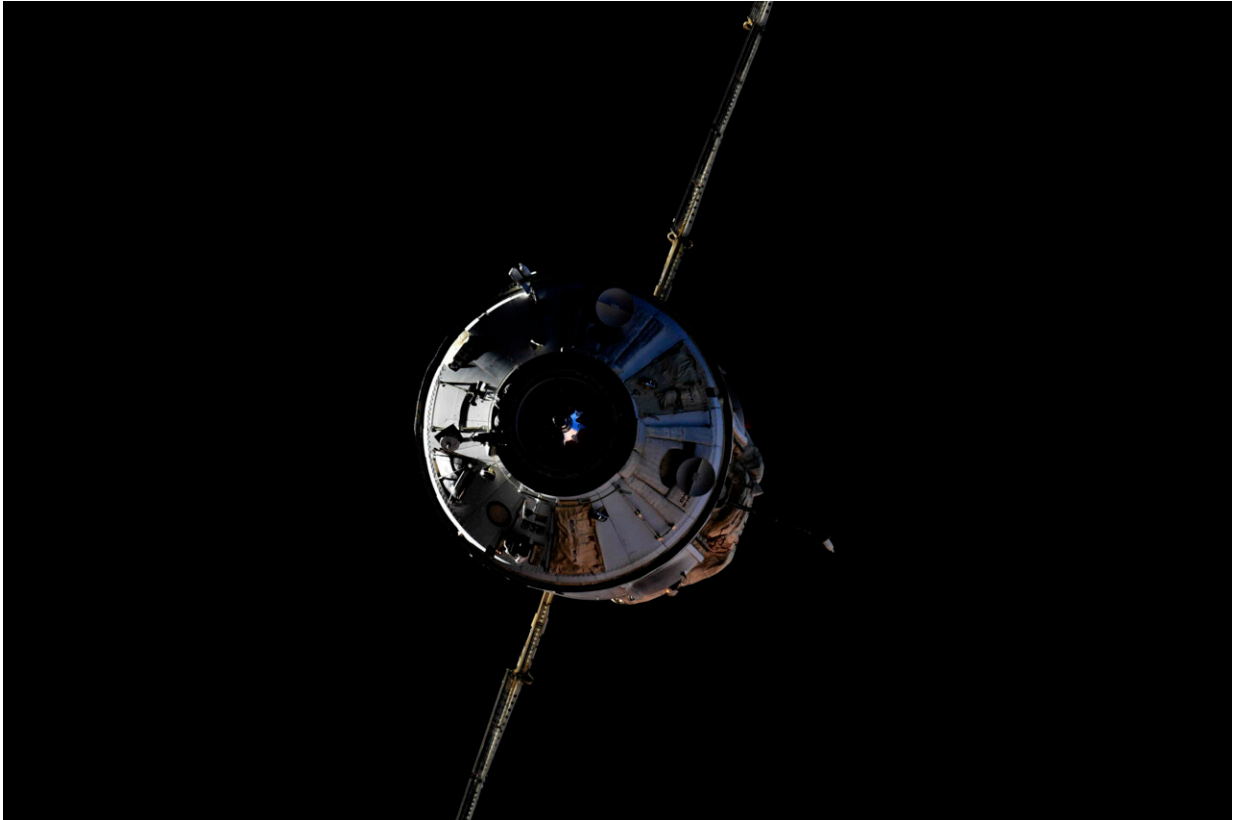
A Russian space official on Friday blamed a software problem on a newly docked science lab for briefly knocking the International Space Station out of position.

The space station lost control of its orientation for 47 minutes on Thursday, when Russia's Nauka science lab accidentally fired its thrusters a few hours after docking, pushing the orbiting complex from its normal configuration. The station's position is key for getting power from solar panels and for communications with space support teams back on Earth. The space station's communications with ground controllers also blipped out twice for a few minutes on Thursday.

Vladimir Solovyov, flight director of the space station's Russian segment, blamed the incident on a "short-term software failure." In a statement released Friday by the Russian space agency Roscosmos, Solovyov said because of the failure, a direct command to turn on the lab's engines was mistakenly implemented.

He added the incident was "quickly countered by the propulsion system" of another Russian component at the station and "at the moment, the station is in its normal orientation" and all its systems "are operating normally."

Roscosmos director Dmitry Rogozin later Friday suggested that "human factor" may have been at play.



In this photo taken by Russian cosmonaut Oleg Novitsky and provided by Roscosmos Space Agency Press Service, the Nauka module is seen prior to docking with the International Space Station on Thursday, July 29, 2021. The newly arrived Russian science lab briefly knocked the International Space Station out of position Thursday when it accidentally fired its thrusters. For 47 minutes, the space station lost control of its orientation when the firing occurred a few hours after docking, pushing the orbiting complex from its normal configuration. The station's position is key for getting power from solar panels and or communications. Communications with ground controllers also blipped out twice for a few minutes. Credit: Roscosmos Space Agency Press Service photo via AP

"There was such euphoria (after Nauka successfully docked with the space station), people relaxed to some extent," Rogozin said in a radio

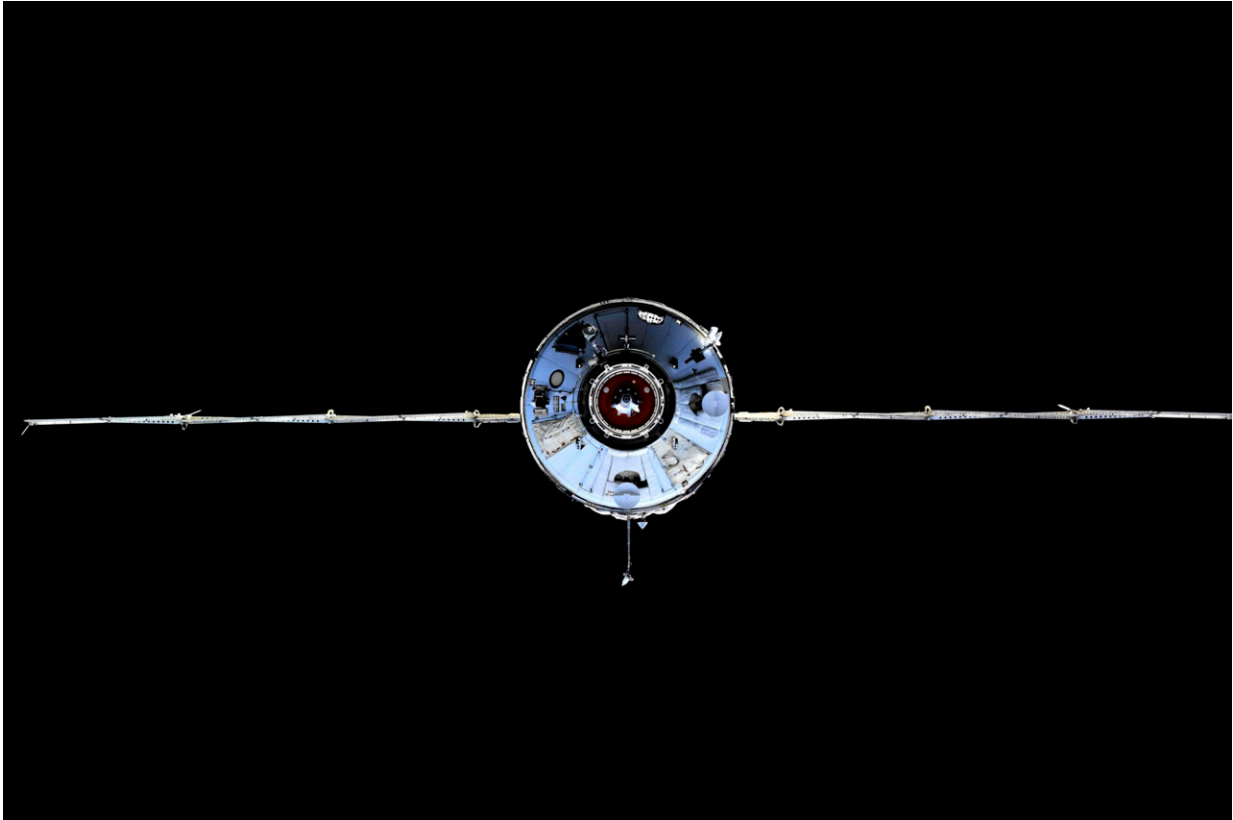
interview. "Perhaps one of the operators didn't take into account that the control system of the block will continue to adjust itself in space. And it determined a moment three hours after (the docking) and turned on the engines."

NASA said Thursday that the incident moved the station 45 degrees out of attitude, about one-eighth of a complete circle, but the complex was never spinning, there was no immediate damage or danger to the crew.

The incident caused NASA to postpone a repeat test flight for Boeing's crew capsule that had been set for Friday afternoon from Florida. It will be Boeing's second attempt to reach the 250-mile-high (400-kilometer-high) station before putting astronauts on board. Software problems botched the first test.

Russia's long-delayed 22-ton (20-metric-ton) lab called Nauka arrived earlier Thursday, eight days after it launched from the Russian launch facility in Baikonur, Kazakhstan.

The launch of Nauka, which will provide more room for scientific experiments and space for the crew, had been repeatedly delayed because of technical problems. It was initially scheduled to go up in 2007.



In this photo taken by Russian cosmonaut Oleg Novitsky and provided by Roscosmos Space Agency Press Service, the Nauka module is seen prior to docking with the International Space Station on Thursday, July 29, 2021. The newly arrived Russian science lab briefly knocked the International Space Station out of position Thursday when it accidentally fired its thrusters. For 47 minutes, the space station lost control of its orientation when the firing occurred a few hours after docking, pushing the orbiting complex from its normal configuration. The station's position is key for getting power from solar panels and or communications. Communications with ground controllers also blipped out twice for a few minutes. Credit: Roscosmos Space Agency Press Service photo via AP

In 2013, experts found contamination in its fuel system, resulting in a long and costly replacement. Other Nauka systems also underwent

modernization or repairs.

Stretching 43 feet (13 meters) long, Nauka became the first new compartment for the Russian segment of the outpost since 2010. On Monday, one of the older Russian units, the Pirs spacewalking compartment, undocked from the station to free up room for the new lab.

Nauka will require many maneuvers, including up to 11 spacewalks beginning in early September, to prepare it for operation.

According to Solovyov, on Friday the crew was busy equalizing the pressure in Nauka and planned to open the hatch to the lab later in the day.

The space station is currently operated by NASA astronauts Mark Vande Hei, Shane Kimbrough and Megan McArthur; Oleg Novitsky and Pyotr Dubrov of Russia's Roscosmos space corporation; Japan Aerospace Exploration Agency astronaut Akihiko Hoshide and European Space Agency astronaut Thomas Pesquet.

In 1998, Russia launched the station's first compartment, Zarya, which was followed in 2000 by another big piece, Zvezda, and three smaller modules in the following years. The last of them, Rassvet, arrived at the station in 2010.

© 2021 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed without permission.

Citation: Russia blames space station lab incident on software failure (2021, July 30) retrieved 25 April 2024 from <https://phys.org/news/2021-07-russia-blames-space-station-lab.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.