

# Image: Astronaut Mike Hopkins on Dec. 24 spacewalk

29 December 2013

---



Credit: NASA

On Dec. 24, 2013, NASA astronaut Mike Hopkins, Expedition 38 Flight Engineer, participates in the second of two spacewalks, spread over a four-day period, which were designed to allow the crew to change out a degraded pump module on the exterior of the Earth-orbiting International Space Station.

He was joined on both spacewalks by NASA astronaut Rick Mastracchio, whose image shows up in Hopkins' helmet visor.

The pump module controls the flow of ammonia through cooling loops and radiators outside the [space station](#), and, combined with water-based cooling loops inside the station, removes excess heat into the vacuum of space.

Provided by NASA

APA citation: Image: Astronaut Mike Hopkins on Dec. 24 spacewalk (2013, December 29) retrieved 18 September 2021 from <https://phys.org/news/2013-12-image-astronaut-mike-hopkins-dec.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.*