

NASA still perplexed by astronaut's flooded helmet (Update)

July 17 2013, by Marcia Dunn



In this image from video made available by NASA, astronaut Karen Nyberg assists astronaut Luca Parmitano remove his space suit after the aborted spacewalk aboard the International Space Station on Tuesday, July 16, 2013. A dangerous water leak in the helmet of Parmitano, drenched his eyes, nose and mouth, preventing him from hearing or speaking as what should have been a routine spacewalk came to an abrupt end. (AP Photo/NASA)

(AP)—The spacewalking astronaut who came close to drowning in a flooded helmet searched for clues in his spacesuit Wednesday, in hopes of understanding the unprecedented water leak.

Engineers in Houston, meanwhile, conducted their own investigation into what should have been a routine, yet still risky, maintenance job outside the International Space Station.

But a day after one of NASA's most harrowing spacewalks in decades, answers eluded the experts.

"There still is no smoking gun or definite cause of what happened or why that water ended up" inside Luca Parmitano's spacesuit, said NASA spokesman Kelly Humphries.

Parmitano, Italy's first and only spacewalker, could not hear or speak by the time he re-entered the space station on Tuesday, 1½ hours after stepping out. He also had difficulty seeing because of the big globs of water in his helmet and elsewhere in his suit.

He'd worn the same suit on a spacewalk a week earlier, without mishap.

NASA aborted the second spacewalk because of the deluge and later acknowledged it was a serious situation in which Parmitano could have choked or even drowned. He looked all right, although wet, when his crewmates pulled off his helmet, and was reported to be in fine shape.

"Back to normality on the ISS - Cupola is still a fantastic sight, even after a (very short) EVA," Parmitano wrote Wednesday in a tweet. EVA is NASA shorthand for spacewalk: extravehicular activity. He followed with photos of Italy's Lake Como, the Italian Alps and the Rimini sea resort that he snapped from the station's cupola, or observation deck.



In this image provided by NASA Tuesday July 16, 2013, European Space Agency astronaut Luca Parmitano, Expedition 36 flight engineer, participates in a spacewalk as work continues on the International Space Station. A little more than one hour into the spacewalk, Parmitano reported water floating behind his head inside his helmet. Parmitano was reported to be fine after the dangerous episode, which might have been caused by an unprecedented leak in the cooling system of his suit. His spacewalking partner, American Christopher Cassidy, had to help him head inside after NASA quickly aborted the spacewalk. (AP Photo/NASA)

NASA astronaut Karen Nyberg, a crewmate, added via Twitter: "Just happy Luca's safe!"

On Wednesday, Parmitano shined a long flashlight through the ring collar of his suit, while his colleague, American Christopher Cassidy, examined other equipment used Tuesday.

Nothing suspicious popped up, Humphries said.

There are only two sources of water in the suit: a 32-ounce drink bag and a 1-gallon cooling system embedded in long underwear.

NASA has pretty much ruled out the drink pouch. That leaves the cooling system. Specialists detected a higher than normal usage of water from the system's tanks, which could be consistent with Tuesday's leakage, Humphries said.

"No real theory yet on exactly where this water came from or why, but they are doing a very deliberate step by step process of troubleshooting to try to identify what's going on," he said.

Tuesday's close call points out the ever-present dangers of spacewalking, Mission Control managers acknowledged to reporters following the episode.

The next NASA astronaut set to fly to the space station, Michael Hopkins, said the important thing is that the spacewalkers got back in safe, thanks to everyone's quick, appropriate reactions. While "certainly concerned" by Tuesday's events, he said he's confident the mystery will be solved before NASA sends anyone else out the hatch.

"We still don't know what happened, and so in terms of how that's going to impact our flight, we still don't know," Hopkins told reporters. But he added: "We're ready for whatever might get thrown our way."

NASA plans no spacewalks during Hopkins' half-year mission,

scheduled to begin in September. Hopkins' two Russian crewmates, on the other hand, are aiming for seven spacewalks before and after December's launch of a new Russian lab.

Russian spacesuits are entirely different than their American counterparts.

Barring an emergency, no further NASA spacewalks are planned anytime soon. The work left undone Tuesday involved a variety of minor chores that had piled up over the past couple of years. Officials said there's no hurry to finish the job.

Spare U.S. spacesuits are on board and could be used in an emergency. The leak problem appears to be limited to Parmitano's suit since Cassidy's outfit worked fine, Humphries said.

Parmitano, 36, a major in the Italian Air Force and a former test pilot, arrived at the space station at the end of May. NASA praised his calm, cool demeanor during Tuesday's crisis. He's supposed to remain aboard the orbiting outpost until November.

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