NASA rolls out rocket for Thursday's ISS cargo launch

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This NASA handout photo shows the Orbital Science Corporation Antares rocket seen as it is raised into position at launch Pad-0A, on December 16, 2013, at NASA's Wallops Flight Facility, Wallops Island, Virginia

With the space station cooling system hobbled and a commercial cargo launch waiting in the wings, NASA Tuesday prepared all options but said no decision had yet been made on whether spacewalk repairs would be needed.

Instead, Orbital Sciences rolled its Antares rocket out to the launch pad at Wallops Island, Virginia in preparation for a Thursday launch of its Cygnus supply ship at 9:19 pm (0219 GMT).

Meanwhile, NASA television showed images of astronauts preparing their white spacesuits in case they are called upon to step outside the space station and repair the broken equipment cooling system.

A US space agency spokesman told AFP a final decision could come later Tuesday or early Wednesday.

On Wednesday of last week, NASA learned that a broken valve had interfered with the cooling loops that regulate the equipment temperature aboard the space station.

The six-man crew was never in danger due to the problem, NASA said.

If the agency decides the manuevers it has made from the ground to orchestrate a temporary fix—by manipulating valves and shutting down some equipment—are stable, the Orbital launch could go ahead.

Orbital Sciences' privately owned cargo ship would then start its journey on its first regular commercial mission to supply the orbiting outpost Thursday, berthing at the space station on Sunday at 4:52 am (0952 GMT).

The company did a demonstration launch and berthing at the ISS in September, showing it was capable of the mission and paving the way for more supply trips.

When NASA lost its capacity to reach space with the retirement of the 30-year shuttle program in 2011, Orbital and SpaceX stepped in to fill the void with their privately made, unmanned supply spacecraft.

Both companies have lucrative contracts with the US space agency to ferry supplies to the ISS.

SpaceX, the California-based company owned by Internet entrepreneur Elon Musk, became the first private company to reach the ISS in 2012 and has a 1.6 billion dollar contract for 12 missions with its Dragon space capsule.

Orbital has a $1.9 billion contract with NASA for eight cargo missions to the ISS, toting supplies, food, science experiments and spare parts.

If NASA decides that engineers on the ground have not been able to fix the ISS cooling system in a way that would be stable for the coming weeks, the Orbital launch would be delayed until next year.

The first of a series of spacewalks by the astronauts on board would then begin later this week.

The last time astronauts stepped out to replace a faulty ammonia pump was in 2010, and the repair took three spacewalks to complete.

If spacewalks are called for this time, they would mark the first time astronauts have ventured outside the orbiting lab since a helmet leak brought an early end to a European astronaut's outing in July.

Italian Luca Parmitano was wearing a US-made spacesuit when a water leak flooded his helmet and risked drowning him.

Two Russians aboard the station are scheduled to step out on a spacewalk for maintenance work on their own module at the lab on December 27.

Commander Oleg Kotov and Flight Engineer Sergey Ryazanskiy are

slated for an outing to install cameras and other equipment on a platform outside the Russian segment of the station.