

NASA aims for more space station repairs

(AP) -- NASA scrambled Monday to put together a new plan of attack to get the International Space Station back to full cooling, following this past weekend's unsuccessful repair effort.

A jammed connector and ammonia leak prevented two spacewalking astronauts from removing a broken pump Saturday. Until the pump is replaced, the space station has to limp along on only half its cooling capability. The system isn't for the astronauts' comfort, but rather keeps electronic equipment from overheating.

NASA is still targeting Wednesday for the next spacewalk to remove the bathtub-size pump. If successful, a spare would be installed during a third spacewalk Sunday.

The cooling-loop shutdown - one of the most serious space station breakdowns ever - occurred more than a week ago.

One of two U.S. cooling lines at the orbiting lab became inoperable when the pump shut down July 31. The six-person crew turned off unnecessary equipment and halted science research so as not to overtax the system; experiments remain on hold.

Under the latest plan, flight controllers will relieve pressure in the ammonia coolant lines leading to the failed pump, over the next day. Then when the spacewalkers venture out, they will close a pair of upstream valves to stop the flow of ammonia to the balky, leaky line that remains connected to the pump, and vent out any residual ammonia.

Hopefully, all that will enable Douglas Wheelock and Tracy Caldwell Dyson to disconnect the troublesome ammonia line without major leakage. They also will need to disconnect power and data cables before they can unbolt the disabled pump.

Saturday's spacewalk by Wheelock and Caldwell Dyson lasted an extraordinarily long eight hours. Wednesday's excursion would be limited to about six hours. In Houston, a pair of astronauts rehearsed the spacewalk procedures Monday in NASA's massive training pool.

NASA wants to correct the problem quickly, just in case a problem develops with the one good cooling line. If that happened, the space station would be in a precarious situation. There would be only a limited amount of time for emergency repairs before the crew would have to abandon ship.

The space station is supposed to continue operating until 2020. After next year, it will have to get by without any more shuttle visits.

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Only two shuttle delivery missions remain, in November and February 2011. A third shuttle flight, next summer, would need White House and Congressional approval.

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