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News release:

Discovery finally lifts off on a Christmas mission to repair Hubble

20-Dec-1999: On the tenth scheduled attempt, NASA launched the Space Shuttle Discovery at 1:50 CET Monday morning on Hubble Servicing Mission 3A. The two previous launch attempts were called off due to poor weather: cumulus clouds, low cloud ceiling, lightning, rain, and generally disturbed weather violated several of the Shuttle launch conditions.

The urgency of the mission - the telescope is currently not observing due to insufficient gyro stabilization - and the possibility of a week-long break in the Shuttle schedule over the New Year due to potential Y2K problems, made NASA officials elect to shorten the mission by two days and go for a final launch attempt in this Millennium early on Monday morning. The impact of this shortening on the mission objectives is expected to be minor since only the fourth and final spacewalk has been cut from the original plan. This last spacewalk was reserved for 'optional tasks': - installation of thermal insulation, fitting of handrail covers, repair of a door and some preparation for the next servicing mission SM3B. The overall mission background is described here.

This mission is only the third NASA mission involving astronauts working over Christmas. The first two were Apollo 8 in 1968 and Skylab in 1973. Many different international teams of astronauts onboard the Russian MIR and SALYUT have spend their Christmas in space.

This launch has been, together with the previous two attempts, monitored from the the Hubble Servicing Mission ESA Monitoring Centre in ESTEC, Noordwijk, The Netherlands. Descriptions of the night's events are available here.

The new shortened schedule for the Servicing Mission is:

- * Launch: Monday Dec. 20, 1999 at 01:50 CET
- * Grappling of Hubble: Wednesday Dec. 22 at 01:41 CET
- * First Spacewalk: Wednesday Dec. 22 at 20:40 CET (gyro replacement)
- * Second Spacewalk: Thursday Dec. 23 at 20:50 CET (replace computer and fine guidance sensor)
- * Third spacewalk: Friday Dec. 24 at 20:50 CET (replace recorder and repair insulation)
- * Release of Hubble: Sunday Dec. 26 at 00:03 CET * Landing: Dec. 27, 1999 23:24 CET

To ESA's Hubble Project Scientist Piero Benvenuti the launch was definitely a milestone: 'The successful launch of Discovery this morning, after so many postponements, was a big relief to us all. Although Hubble is safe, the interruption of normal operations for so long is having a serious effect on the planned science program. It would have been especially disappointing had the launch been delayed unit January. We are now looking forward to a successful Servicing Mission and we are eager to enter the second decade of Hubble

observations with a refurbished telescope.'

Chat Forum

On Monday Dec 20 between 13:00 and 14:00 CET ESA Science provides a Chat Forum where Hubble experts will describe the events of the launch night and give background informations on Hubble. Everyone are welcome to participate, ask questions or relate experiences of their own.

The Chat forum will also be open Wednesday Dec 22 from Dec 09:00-10:00. The topic will then be Wednesday morning's attempt to grapple Hubble.

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