

28 MARCH 1991

3D DOCKING ATTEMPT PROGRESS-M7 SUCCESSFULLY CONCLUDED:

Before the docking attempt a very important operation was necessary, i.e. the redocking of the Soyuz-TM11 from forward to aft port. This has been done in the very early morning hours of 27 March 1991. During this autonomous flight of appr. 20 mins the crew could observe and film the suspect Kurs antenna on the Kvant-1 module. This antenna indeed was damaged and caused the 2 first docking failures. As the use of this antenna for the docking of S-TM11 the crew had to dock their ship manually. After his TsUP gave green light for the 3d docking attempt with Pr-M7 on 28 March 1991. So the freighter was to dock to the forward (transition section) port.

APPROACH AND DOCKING ON 28 MARCH 1991:

Again fully according the well-known timetabel the docking was planned a few minutes after MIR's and Pr-M7's first pass for our position in orb. 0725Z, 1152-1201UTC, so at abt. 1205UTC. During the approach the crew was in the Soyuz-TM11 (which they did not during the 1st and 2d docking attempts!). This is a security measure to enable the crew to get away in case of a collision. They used 143.625 mc for their communication with TsUP (of course 121.750 mc was also possible). TsUP reported the navigational details to the crew. The crew was able to observe on a TV screen imaged of the approach taken on board Pr-M7. Just before LOS Pr-M7 was in a distance of 44 Meters from MIR. TsUP planned to give the ultimate docking command at 120630UTC, so at about this moment Pr-M7 docked.

During the next pass (1429-1436UTC) the crew checked the airseal. Manarov was not sure about the airseal and so he decided to wait with the opening of the hatches. When MIR passed during the 3d pass (1502-1513UT) the hatches had been opened. They still had a problem with one of the hatches which could not be opened fully.

FURTHER PLANS: Undoubtedly they have to carry out an extra EVA for the repair or replacement of the disabled Kursantenna. Manarov already on 26 March suggested to use for the replacement the Kursantenne on Module-D. TsUP did not give permission to do that. There still has to be a lot of studying and rehearsing on earth for that operation. The delay of docking of Pr-M7 and the fact that it now is on the other docking port must have a negative influence on the plans for the coming weeks. But they will cope with it. The loss of Pr-M7 would give more complications and problems.

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