

## EXTRA VEHICULAR ACTIVITY AND REPAIR TTM TELESCOPE SUCCESSFUL TODAY.

PREPARATIONS: During the last weeks the cosmonauts were involved in rehearsals and checking equipment for that EVA. One day even the physician Polyakov had to slip into a spacesuit, so it seemed as if he also had to take part in the EVA. In fact he had to stay on board to coordinate the operation from a control point, possibly inside the Soyuz-TM6. Equipment and spareparts for the operation had been delivered by Progress-38 on Sept. 9th (UTC).

EVA: This started on 20th of Oct. at appr. 0700UT. Titov and Manarov waited in their new flexible space suits in the P.Kh.O. (transition compartment) for the vacuum. Manarov went into open space at 0707UT followed by Titov at 0716UT. Manarov took care for equipment and spare parts, Titov used the portable T.V. camera. The EVA lasted 4 hrs 12 min-s. During the radiotraffic in the first pass (orb. 15354, 0911-0915UT) the "open space workers" were very optimistic, there was no tension and obviously all was proceeding well. Now and then they emphasized (also did TsUP) that the work had to be done without haste and Manarov even spoke about "accomplishing the task in accordance with the technological demands". They had to be very careful when they had to disconnect plugs and contacts. Now and then the cosmonauts stopped their work to relax a while. Already in the next pass (orb. 15355, 1042-1052UT) the cosmonauts told that they had finished their job 1 hour earlier than had been planned! They already gave a T.V.-report and extensively explained what they did and how. Before the T.V.-report they were able to enjoy the magnificent sight of the earth. During the 2 previous EVA-s they had too many problems and were unable to do that. They said that they never had such a beautiful sight of Spain and were surprised by the view on Milan. (So this means that their possibilities of sightseeing through portholes are not so good as we all presumed thusfar!)

They achieved the following successes:

1. The completion of the repair of the detector unit of the Dutch-British TTM telescope. Manarov said that they were able to do it with new equipment and a new methodology.
2. The installation of an anchored working platform outside the station needed for the EVA of a French cosmonaut in November or December this year (they spoke about "anchor").
3. AND RADIOAMATEURS ATTENTION PLEASE: they installed a V.H.F. antenne for Radio amateur communications in the future!!!!
4. WINDOWCLEANING. The windows of some portholes were covered by a slight film of chemical pollution causing a bad transparency. With a liquid they had to remove this film and they partly succeeded. They removed the upper layer of that film and will remove the under layer during a next occasion.

BACK ON BOARD: Being far ahead of schedule they could finish the EVA before the next pass here and so during that pass (in orb. 15356, 1218-1218UT) they already were inside, had closed the station hermetically and spoke with TsUP while inside the R.O. (working compartment). They reported about the conservation of equipment and space suits. They also told that they still had to carry out some tests to check whether the TTM telescope worked well. (Hope to hear about those tests tomorrow.)

So far about the EVA. Here some "hot news":

1. Kosmolyot-1 (Soviet space shuttle, possibly named "Buran"). There have been plans to launch this s/c on Oct. 23d 1988 for a short (3 orbits) and unmanned flight. The computer will control the flight, inclusive approach and landing. Frequencies: thusfar unknown, even my English friends could not help me.
2. About the radio amateur facilities on board MIR. Titov and Manarov agreed with the eventual operation of a Packet radio station on board, but they do not have amateur licences. At the moment none of the cosmonauts has such a license. A future cosmonaut, KONDRATKO, is radio amateur, but he has only a S.W.L.-licence. He will try to get his "call".