

EVA Report: EVA #5 Crew members: Louis Maller (EVA leader), Mohammad Iranmanesh Mehdi Scoubeau (EVA buddies) Location: Around the Hab (12S-518230E-425720N) Time: departure at 9:30 a.m. Duration: 2 ½ hours Purposes:

-Checking the ATVs to see if they work and to train on them - Around the Hab exploration

- Pictures for PhobosTV - Project CRV: Exploration

Further testing of new wireless camera Test of radio repeater

- Project EMUI:

Testing of new features (new note and procedure, with new pictures inside the new helmets) by PI - NorCal Rover: if the team spots an interesting stone, the crew scientist sends the rover to check it visually and see if it is interesting and if it is worth taking back to the station.

HabCom: Camille Gontier

Timeline

9:30 exiting the airlock and heading for the ATVs to test them. The keys were on the ATVs

9:34 starting ATV testing

ATV4 OK used during the EVA, some problems for restarting

ATV2 managed to start and stroll around but it stopped after a few minutes and we weren't able to restart it

Red ATV was able to start and was used during the EVA

ATV1 OK used during the EVA

9:52 heading on the ATVs at a short distance from the Hab (ATVs used for Phobos TV)

10:32 Shooting with PhobosTV at the east of the Hab while collecting rock samples

11:00 EVA team returns to the Engineering Airlock to collect material.

11:05 CRV and NorCal Rover taken from the Engineering Airlock

11:10 starting NorCal Rover test

11:25 end of the NorCal Rover test

11:35 starting testing the CRV

11:40 CRV measure reading (22°C, 13% moisture)

11:45 heading back to the station

12:00 water noticed on the ground near the main airlock, looks like a leak

12:02 end of EVA

Summary

The EVA was longer than expected (2h30 instead of 2h, mostly because of the presence of the reporter from PhobosTV). So we felt a bit short on oxygen at the end (in addition to hot, thirsty and hungry which is more usual), but were still below the three hours max permitted by the backpacks.

The ATV testing yielded some interesting results, and they were further tested during EVA#5b

The water level in the static tank was measured successfully.

The shooting with the reporter went well, even if it is psychologically a bit difficult for the sim (particularly the opening

of an airlock while we were in recompression).

The testing of the NorCal Rover was successful. It joined the EVA team approx. 20m from the Hab. It allowed HabCom to have visual on some rocks and carried away the sample once collected.

The CRV was tested on a pretty steep slope and the testing went well.

The EMUI glasses were worn but difficult to test (they didn't respond as well as during previous testing sessions).

EVA #5b

Crew members: Mohammad Iranmanesh, Jérémy Rabineau, Arthur Lillo, Louis Maller

Time: departure at 3:00PM

Duration: 50min

Location: Around the Hab (12S-518230E-425720N)

Purposes:

ATV training for the three extra members + TV and engineering check

Timeline

3:04 start decompression

3:07 EGRESS

Interview with the journalist from PhobosTV

3:24 Picture of the suspected leak outside the hab

3:39 starting ATV tests and engineering check

3:42 Louis re-enters the main airlock along with the journalist

ATVs rolled a bit on the main road to learn how to use them and test them

3:55 The rest of the team is back in the Hab

Summary.

We had to change a bit both the schedule and the team, mainly for TV reasons. But the EVA went well, the engineering check had to be done, and the ATV testing was successful. We also took pictures of the suspected leak that we saw this morning.