

## HUMAN SPACE ENDEAVOURS SYMPOSIUM (B3)

Joint session on Human and Robotic Partnerships to Realize Space Exploration Goals (6.-A5.3)

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## HUMAN AND ROBOTIC PARTNERSHIPS DURING ILEWG FIELD CAMPAIGNS IN UTAH DESERT (EUROGEOMARS2009 AND EUROMOONMARS2010) AND EIFEL VOLCANIC PARK

**Abstract**

The EuroGeoMars 2009, EuroMoonMars 2010 in Utah and ILEWG Eifel209 campaigns were performed in order to assess several human and scientific aspects of future robotic and manned missions on planetary surfaces, as part of the ExoGeoLab pilot project developed at ESTEC in collaboration with European and US investigators. The EuroGeoMars campaign lasted 5 weeks encompassing four sets of objectives: 1) Technology demonstration aspects: a set of instruments were deployed, tested, assessed, and training was provided to scientists using them in subsequent rotations 2) Research aspects: a series of field science and exploration investigations were conducted in geology, geochemistry, biology, astronomy, with synergies with space missions and research from planetary surfaces and Earth extreme environments. 3) Human crew related aspects, i.e. (a) evaluation of the different functions and interfaces of a planetary habitat, (b) crew time organization in this habitat, (c) evaluation of man-machine interfaces of science and technical equipment; 4) Education, outreach, communications, multi-cultural public relations aspects

We shall emphasize the results and lessons relevant to Human and Robotic partnerships and performances during those field campaigns.

Results will also contribute to ongoing studies on Robotic and Human Moon-Mars Exploration by space agencies, ILEWG, IMEWG, ISECG, IAF, COSPAR, IAA.