## HUMAN SPACEFLIGHT SYMPOSIUM (B3) Interactive Presentations (IP)

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## THE REPORT BY NEW PROJECTS OF LOW BUDGET SCIENTIFIC AND COMMERCIAL PILOTED EXPEDITION TO MARS

## Abstract

Abstract THE REPORT BY NEW PROJECTS OF LOW BUDGET SCIENTIFIC AND COMMERCIAL PILOTED EXPEDITION TO MARS. Abstract The projects well work. In the projects will be inventions. PCT/RU 2013000661 PCT/RU 2013000655 PCT/RU 2013000660 PCT/RU 2013000659 The projects will be provided in several options of its implementation: 1 . Extremal expedition Earth-Mars in 69,7 days with stay on a Fobos Deimos and Mars within several months. The project distinguishes extremal braking in the atmosphere of Mars. For return to the earth it is planned to use sensational fuel....... normal soil of a Fobos or Deimos! 2 . Project expedition Earth-Mars of 110 days and 144 days. in the project the newest and reliable system of landing to Mars will be used. For relocation on a planet it is planned to use a piloted rover and some variant of aircrafts and even helicopters. 3 . The project of piloted expedition to Mars in which is planned to use original devices for fuel production on Mars a Fobos or Demos. 4 . The expedition project to Mars with use of a solar sail. 5 . The expedition project to Mars in which is planned to use International Space Station modules! 6 . The project of expedition of International Space Station to Mars with its landing on the Fobos or Demos. 7 . Different options of protection against radiation of members of Martian expeditions will be provided