

**RUSSIN PLANS FOR THE FIRST STAGE OF LUNAR ROBOTIC EXPLORATION.** I. G. Mitrofanov<sup>1</sup>, A. A. Petrukovich<sup>1</sup> and L. M. Zelenyi<sup>1</sup>, <sup>1</sup>Institute for Space Research of Russian Academy of Science, Profsojuznaja 84/32, 117997 Moscow, Russia (*imitrofa@space.ru*).

The current plans will be reported for the first stage of the future Russian robotic missions to the South pole of the Moon.

The major goal of the sequence of the missions at the first stage is the sample return of polar regolith. It is commonly accepted that polar regolith has a lot of trapped volatiles, so the detailed studies of these samples on the Earth will allow to understand the history of the Moon, to determine the physical environment at lunar poles, and also to get the basic knowledge for future utilization of lunar polar resources.

The first mission of the sequence, historically named *Luna Glob* for 2015, should land to the most secure spot at south polar area and to study the polar regolith and exosphere. The next mission for 2016 is the polar orbiter of *Luna Resurs* project, which should investigate the polar regions of the Moon from the 100 km polar orbit. The third mission for 2017 is the lander of *Luna Resurs* project, which should land at the most interesting site at the south polar area for detailed analysis of regolith from the shallow subsurface.

When these three missions will be accomplished, with the tested technology and with the obtained necessary science and engineering knowledge, the fourth mission *LPSR* (from *Lunar Polar Sample Return*) should be performed, which launch is preliminary scheduled at 2020.