Innovative trends in the development and operation of space ground-based infrastructure at technical areas of cosmodromes

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The article discusses the main innovative trends in the development and operation of ground-based space infrastructure at cosmodrome technical area. The prospects of universal technical solution application allowing significantly increasing the efficiency of activity on creation and operation of ground space infrastructure objects of cosmodromes at the present stage are specified. The main approaches and advantages of the application of the compact layout of the facilities at the technical area, associated by the transborder gallery are described. In this layout filling and neutralization station is situated in the building, adjacent to the assembly and testing facility for space objects. The advantages of applying technologies for preparation, transportation and refueling space objects with rocket fuel components using transport and refueling containers are also considered. The results of innovative approach application to the creation and operation of the infrastructure of technical areas at the Vostochny cosmodrome and at the Guiana space center are presented.

Keywords: *cosmodrome, ground-based space infrastructure, technical area, the assembly and testing facility, filling and neutralization station, transport and refueling container*

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