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## LEGAL CHALLENGES OF THE USE OF THE REMOTE SENSING AS A MEAN FOR FUTURE OF SPACE MINING

## Abstract

In the technical aspect, remote sensing unlikely will change significantly. Mechanism of analysis of electromagnetic waves emitted, reflected or scattered by probed objects will probably remain, but legal regime of remote sensing will radically change first of all according to lack of the concept of sensed state. It can be explained by article 2 of OST, which proclaimed that outer space, including Moon and other celestial bodies is not subject to national appropriation by claims of sovereignty, by means of use or occupation or by any other means. According to this a lot of legal questions arise, namely: Will provisions of Principles Relating to Remote Sensing of the Earth from Outer Space, 1986 (Remote Sensing Principles) be extended to remote sensing of all celestial bodies? How will be kept commercial secret information about mineral deposits and which will be legal relationships between sensed and sensing actors? Will be ecological provisions in new remote sensing legal framework? Response to the first question connected not only with replacement the concept of sensed or sensing state into sensed or sensing private actors, but also with consequences of this replacement. Thus, even remote sensing will be made by private companies, according to article 8 of OST, only states exercises a jurisdiction and control over the remote sensing objects. Other case arises with sensing state because it cannot be any sensing national's territories under the celestial bodies other than Earth, according to article 2 of OST. Second question concerned with legal relationships between sensed and sensing actors. Remote Sensing Principles stated that remote sensing data is granted to sensed state on non-discriminatory and reasonable terms. In the light of space mining, sensing is the first stage, which helps to make a solution about mining in sensed area. So, in the first time sensed actors do not exist, but soon, during extraction of space resource, these two actors can coincide. The situation, according to which two different actors will make sensing and mining of resources of celestial bodies, may generate the question about legal relationships between such actors. The third question is about dissemination of principles 10 and 11 of Remote Sensing Principles, which reflect the responsibility of sensing state to share the information that is able to prevent any phenomenon harmful to the Earth's environment and that is able to be useful to States affected by natural disasters or endangered by impending natural disasters.