

IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)
Interactive Presentations - IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (IP)

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REGISTRATION ASPECTS OF MEGA-CONSTELLATIONS' SATELLITES UNDER
INTERNATIONAL LAW

Abstract

Operation of mega-constellations has become very popular in the private space industry recently. Big space companies like SpaceX or OneWeb have already started launching their satellites of mega-constellations for providing high-speed internet all over the world. For instance, satellite internet constellation Starlink includes over 1,700 satellites, OneWeb has more than 400 satellites. Such space faring nations as China (Tianxian) and Russia (Sphere) also have plans of deployment mega-constellations. Mega-constellations have many advantages: comprehensive or local coverage of the Earth's territory, multiple satellites launched simultaneously and the high technical performance of the whole constellation. This new applied space activity is very beneficial economically but from the legal point of view there could be some questions, one of them deals with registration process. Under international space law "when a space object is launched into Earth orbit or beyond, the launching State shall register the space object by means of an entry in an appropriate registry which it shall maintain" (Art. II of the REG 1976). Moreover, "each State of registry shall furnish to the Secretary-General of the UN, as soon as practicable, the information concerning each space object (Art. IV of the REG 1976). Registration of a space object connects with jurisdiction and control aspects as well as ownership (Art. VIII of the OST 1967). It helps to determine a liable State for the occurred damage (Art. VII of the OST 1967 and the LIAB 1972). All these provisions refer to the member satellites of mega-constellation. Also, satellites of mega-constellation are regulated by international telecommunication law, i.e. by the ITU documents in the context of arranging spectrum. States should submit filings to the ITU on its behalf or on company's behalf for which State is responsible for. Abovementioned procedures work well for single satellites, but deployment of mega-constellations as a single system raises numerous questions: whether it's necessary to register a constellation alongside with each space object of it; whether it's necessary to create a special procedure for filing a constellation in the ITU, whether it's necessary to draft new guidelines of registration and sharing information about it under the Registration Convention 1976? Considering the challenges from deployment of mega-constellations (from the point of space traffic management or astronomy views) proposed interactive presentation will show based on comparative legal analysis necessity for the specialized registration process of mega-constellations and difficulties in it and suggest some ideas in this regard.