

IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)
UNCOPUOS and ITU Registration of Large Constellations (2)

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LINKING UNCOPUOS AND ITU REGISTRATIONS FOR LARGE SATELLITE CONSTELLATIONS:
A CASE STUDY**Abstract**

For a long time, UNCOPUS and ITU have carried out international registration of space objects, space radio stations based on different international conventions. The space object registration based on the Registration Convention focuses on the registration state: launching states, orbital parameters, and General function of the space object, and ITU registration based on the Radio Regulations focuses on the orbital parameters of the space radio station of the satellite networks, the geographical location of the satellite earth stations, and radio frequency parameters. Due to different international legal bases, their domestic legal basis, registration procedure, registration information and authority are different. Since 2010, with the maturity of NGSO communication satellite technology and commercial launch services. Commercial communication satellite operators began to pay attention to NGSO satellite constellations and notified ITU of many NGSO satellite network fillings. According to Radio Regulations, the NGSO satellite network with an earlier notification date can seek coordination with the NGSO satellite network with a later notification date to ensure that their satellite system is not subject to harmful interference from systems notified later. This has resulted in some operators notifying excessive, unfeasible satellite network filling, and difficult for other usable satellite networks to complete coordination with those satellite networks. Subsequently, ITU realized that the existing notification system was not sufficient to deal with fairness, efficiency and security issues brought about by increasing satellite network fillings of large satellite constellations. In this context, WRC-19 adopted Resolution 35 under Radio Regulations, Resolution 35 established a milestone regulatory framework to ensure that constellation operators effectively fulfil milestone requirements. This paper will compare the UNCOPUS space object registration and ITU satellite network filling notification, including information, procedure, authority and state, sort out four stages of a constellation from design, pre-launch, launch, continuous launch for completing milestone. and take one constellation as an example, analyze its space object registration process and ITU notification process, identify similarities and differences between UNCOPUS registration and ITU registration. This paper also proposes suggestions from two perspectives: establishing a linkage mechanism between UNCOPUS and ITU registrations, improving domestic registration procedure, improving the timeliness of international registrations for space objects and space radio stations, promote rational, safe utilization of orbit resources and radio frequency resources, and reduce the procedural burden for both administrative competent authorities as well as operators.