

IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)

Space Traffic Management: From Space Situational Awareness and Space Surveillance and Tracking to developing Rules of the Road (4)

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FURTHER OUT: KEEPING TRACK OF DEEP SPACE OBJECTS

Abstract

Space situational awareness, for all its challenges, is relatively mature in LEO and GEO. In comparison, the situation beyond GEO is chaotic. No organization is charged with maintaining SSA for deep space objects either in distant Earth orbit or beyond Earth orbit. There is no formal interface between the astronomers who accidentally detect deep space objects while searching for asteroids and the astronautics community. Organizations such as JPL keep track of their own active probes but not of their discarded rocket stages nor the probes of other nations. This situation has been tenable due to the low flight rate of deep space missions to date, but that is changing with the arrival of commercial lunar missions and deep space cubesats, and the increasing number of states carrying out deep space exploration.

I will present a historical database of about 1000 deep space objects and argue that the time has come to plan for internationally coordinated deep space traffic management.