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The relationship between space law and cyberlaw, and other recent developments in space law (5)

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IDENTIFYING THE SCOPE OF THE APPLICABLE INTERNATIONAL LAW RULES TOWARDS
MALICIOUS CYBER ACTIVITIES AGAINST SPACE ASSETS

Abstract

This article studies five category of malicious cyber activities against space assets in order to assess to what extent the existing international telecommunications law and space law address them and identify which rules are lacking to effectively solve such incidents. Five category of such activities include to (a) jam, (b) hijack, (c) hack, (d) spoof, and (e) rob the control the telemetry, tracking and control (TTC) of a satellite, a kind of anti-satellite (ASAT). More specifically, the following five cases are studied: (i) Iranian intentionally jamming of the Eutelsat satellite solved in the ITU; (ii) A terrorist organization, Liberation Tigers of Tamil Eelam hijacking an Intelsat-12 satellite solved by the diplomatic negotiations between the Sri Lankan and U.S. governments with the help of the ITSO and other relevant international organizations; (iii) allegedly Chinese hacking of the U.S. NOAA's information systems; (iv) Iranian spoofing of the NPT/GPS signals to guide a U.S./CIA's RQ-170 UAV into the Iranian territory; and (v) allegedly Chinese taking control of the U.S. NASA's Landsat-7. The tentative conclusions are that it can be said that the International telecommunication laws including those made in the ITU provide necessary legal mechanisms on which reasonable solution is attained when the "harmful interference" is conducted by a non-governmental entity (case (ii)). To better solve the conflicts between States in this regard, emerging space law norms relating to TCBM and the pursuit of the consultation in case of the "potentially harmful interference" may help (case (i)). The remaining and thorny issues include that cases (iii), (iv) and (v) which need careful examinations of the UN treaties on outer space including the Articles VI and IX of the Outer Space Treaty and the customary international law of responsibility. The detailed contents of "harmful interference" and the rules of non-intervention will be examined to identify which rules are lacking and should be supplemented under the current international law.