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RECENT CHALLENGES FACING THE MANAGEMENT OF RADIO FREQUENCIES AND ORBITAL RESOURCES USED BY SATELLITES

Abstract

In October 2009 ProtoStar, a start-up satellite company with a promising business plan, was forced into Chapter 11 bankruptcy proceedings as a direct result of radio frequency-coordination hurdles involving its two satellites. The company found it easier to raise millions in equity and debt than to gain access to adequate radio frequency and orbital slot resources under the current international legal regime. In addition, an increasing number of instances in which harmful (sometimes intentional) interference with adjacent satellite systems was publicly alleged by reputable satellite companies demonstrate that the management of radio frequencies resources as administered by the International Telecommunication Union (ITU) is becoming extremely challenging and in dire need of practical solutions. Although the Radio Regulations provide for a detailed procedure for allocation and assignment of radio-frequency spectrum at designated orbital slots, in the context of growing demand for frequency and orbital resources and orbital congestion, the practical application of ITU's radio frequency management system, especially with regard to frequency coordination, is in many instances influenced by political and anti-competitive agendas. This paper will identify some of the loopholes in the ITU procedures regarding radio frequencies assignments which allowed for the "paper satellite" phenomenon, the "floater-for-hire" practices and the undermining of the frequency coordination process. Given that the ITU does not, and has no authority to, impose sanctions or otherwise enforce its Radio Regulations or other applicable rules, compliance is ensured through the goodwill, to the extent available, of the member states. In light of the current commercial reality characterized by high demand and scarcity of valuable orbital location and associated radio frequencies, the goodwill of the parties is likely conditioned upon economic interests of their nationals. The paper will critically review the feasibility of several mechanisms and practical strategies which can be employed to ensure a more efficient management of the use of the spectrum and orbit resource and provide better solutions to the current challenges in administering the scarce orbital location and radio frequency resources.