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ACTUAL SITUATION IN THE GEOSTATIONARY ORBIT

Abstract

There are two databases dealing with radio transmissions from the geostationary orbit. One is the Space Network List maintained by the International Telecommunication Union. It lists radio stations which enjoy international recognition and protection from harmful interference and which transmit from a fixed orbital position. The other database lists satellites controlled at positions in the geostationary orbit. The satellites are registered in accordance with the Registration Convention and are listed in the Online Index of Objects Launched into Outer Space maintained by the UN Office of Outer Space Affairs. The actual positions of active satellites are observed by two independent worldwide networks of observatories. The list of positions of active satellites is believed to be complete. An important fact emerged from matching of Space Network Radio Stations with satellites operating at the same orbital positions. At least 13 percent of the radio stations cannot transmit radio signals because there has been no spacecraft at the relevant orbital position for a number of years. This fact has to be taken into account when discussing the overcrowding of the geostationary orbit or in taking steps for increasing the efficiency of the use of the geostationary orbit by admitting new users.