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MEXICAN EARTH STATION FOR RECEPTION OF SCIENTIFIC DATA FROM MEXICAN AND FOREIGN SATELLITES, TRACKING, TELEMETRY AND COMMAND.

Abstract

A few months ago, the Faculty of Engineering of the National Autonomous University of Mexico (UNAM) design and install along with an American company the first satellite earth station that has the fol-lowing technical capabilities: reception of scientific data, images of the from space, Telemetry, images of the earth from space, tracking and command. Mexico is one of the countries that invests a lot of money to obtain satellite images of Mexican territory, this factor becomes more complex when you consider that in our country there are very poor ground infrastructure dedicated to the receipt of such images, Telemetry, command, etc. In the next few years Mexico will have its own scientific microsatellite (CONDOR Scientific Microsatellite) and need to be prepared with the minimum infrastructure to control them effectively. The earth station operates in the S and X band and has a special X/Y type system and its technical characteris-tics make it very attractive and cheaper than other stations. Its geo-graphical location near the Ecuador makes it interesting for NASA and research institutions from Spain and Russia. This article presents the terrestrial infrastructure, features and examples of operation of the station. The earth station is part of the first Mexican national laboratory space of the engineering faculty of the UNAM achieved with support from CONACyT-UNAM. The station is of interest to many national and international academic institutions and research.