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HOW TO SEND A SIGNAL TO FIXED GROUND ANTENNAS FROM A NON-GEOSTATIONARY SATELLITE

Abstract

There are orbits which have quasi-stationary periods twice per revolution, as seen from a specific position on Earth. They could serve as a broadcast alternative for the geostationary orbit and since such orbits are inclined, in addition they cover the Polar Regions. The conditions for those special cases and the dependency on orbit radius and inclination are elaborated in this presentation. Exemplarily an application for a global information service will be introduced in combination with the conditions for a repeating ground track using just one single satellite.