

ABSTRACT

According to radio frequencies allocation by ITU-R in the article 8 Radio Regulation, there are many similar frequencies which are being used in both terrestrial and satellite. As the result, there are possibilities that those systems will interfere one another. Through this analysis the interference possibilities that caused by terrestrial system to users served by non-geostationer satellite, Teledesic, will be analyzed. The terrestrial system which usually operates at L or C-band, will use Ka-band frequencies, similar to Teledesic uplink frequency.

Since the satellite that we use is non-GSO satellite, the direction of user's antenna will be keep changing following the satellite movement. With that condition, the gain side lobe of the user's antenna should be considered. The analysis will calculate the interference level that happened around the terrestrial link of bojong Waru-Pengalengan.

The expectation from this analysis are to know whether the interference really happened between user that operates with non-GSO satellite and the terrestrial system that already exist in different location, and to find solution if there is interference.