

Analisa dampak operasi inclined terhadap sistem transmisi IDR pada satelit Apstar 1A di Indonesia = Analysis the effects of inclined satellite operation to IDR transmission system on apstar IA satellite in Indonesia

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Abstrak

Satelit Apstar IA merupakan satelit komunikasi geostasioner yang dilengkapi dengan bahan bakar roket untuk proses station-keeping. Proses station-keeping pada satelit Apstar IA diperlukan untuk melakukan koreksi posisi orbit. Pengurangan frekuensi station-keeping menyebabkan perubahan orbit satelit sehingga posisi satelit tidak stabil. Ketidakstabilan posisi satelit menyebabkan ketidakstabilan kualitas sistem komunikasi satelit karena adanya rugi pengarahan pada antena stasiun bumi. Perhitungan link budget berfungsi untuk menganalisis pengaruh ketidakstabilan posisi satelit terhadap kualitas sistem dan menentukan periode tracking yang tepat dari antena stasiun bumi.

Apstar IA is a geostationary satellite communication that is equipped by rocket fuel for station-keeping process. Station-keeping process on Apstar IA is needed to correct the orbit position. The reduction on satellite Apstar IA station-keeping frequency causing the change of satellite orbit with the result that position of satellite is unstable. The unstable of satellite position causing the quality of satellite communication system unstable because of miss alignment antenna in earth station. The function of link budget calculation are to analysis the effect of the unstability of satellite position to system quality and determine precise tracking periode of the antenna on earth station.