ABSTRACT

On August 13th, 1999, Telkom-1 satellite has been operated and accommodate the B2R satellite's load and the addition after operation.

In this Final Task I do the study of transponder'load regulation so that can optimalize the capacity Telkom-1 satellite. To reach the purpose, I analyze the load by power and bandwidth each transponder. And then, I analyze that the loading has been optimal. After the Telkom-1 satellite's load calculation, the loading is bandwidth limited. Therefore, we must increase the using of power and decrease the using of bandwidth. To optimalize the loading, I change the value of pad, FEC, the diameter of receive antenna, and change the modulation methode. For getting the most optimal loading with the bandwidth limited condition, I use small pad, or without pad. And I also use the small FEC or without FEC. For any carrier, the optimalization can be reach by using small diameter receive antenna.

After reregulate the Telkom-1 satellite's load, there are about 10 transponder are still idle, that can contain other carrier that can be needed by the customers of Telkom.