ABSTRACT

The very rapidly development of information and communication technology at this time, with the increasing human population, information and communication technology is becoming a primary requirement. One of them is navigation technology, navigation technology system that currently operates globally is Global Posistioning System (GPS) and Global Navigation System (GLONASS) system. By utilizing this system, the need for a large community in terms of efficiency and the smoothness of communication is the main thing.

In this final project the author analyzes and compares synchronization from the Global Positioning System (GPS) and Global Navigation System (GLONASS) systems. To achieve this goal, the author uses data that had been collected at PT. Relia Telemit Semesta and customer data at PT. Relia Telemit Semesta Pekanbaru using the 2000 Synchronization Supply Unit (SSU-2000). The parameters used are satellite number, lock speed time, and SNR.

Based on the analysis of Relia Telemit Semesta's data, the GPS satellite system is better than the GLONASS satellite system. With the number of satellite as the parameter, satellites of GPS is easier to find (>10 satellites) while GLONASS (<10 satellites); with lock speed time as the parameter, GPS satellite is being locked faster with a lock time difference is 1000 seconds; with SNR as the parameter, GPS satellite has better SNR quality. Then, based on the Pekanbaru data result, the GPS satellite synchronization is the best for Indonesia because Indonesia region is close to the equator.

Key words: Global Positioning System (GPS), Global Navigation System (GLONASS), Synchronization, Synchronization Supply Unit (SSU-2000)