

ABSTRACT

Global Positioning System (GPS) is a positioning system using satellites can provide continuous position information worldwide. In determining the position, the GPS is not always appropriate to the position shown, or in case of error position. This is because of interference, especially when the GPS signal travels to the GPS receiver. Disturbances that occur are quite varied, but in general the cause of errors or mistakes can be grouped into two groups: satellite geometry and ionospheric disturbances in the layers. In this case, disturbances to be discussed is satellite geometry configuration, could affect positioning accuracy in the determination of position using GPS. Satellite geometry parameters related to position error is Geometric Dilution Of Precision (GDOP). A good satellite configuration, the separation angle is wide, so its GDOP value will be small and the resulting error will be small. Based on observations during the first week, August 10 to October 16, 2010 in Bandung area, the largest error position of the up position. This indicates that the layer of ionosphere effect, condition of that don't always stable. The error value then correction using the correction of ionosphere and troposphere and can reduce the error of 45%-50% from the previous error condition.

Key Words : Error Position, GDOP, GPS, Satellite