A recent publication by the ECCOE Geometry team shows improved accuracy in ground control by deploying a triangulation method on a continent by continent basis. Increasing interest in remotely sensed data products and the rise of new sensors has created a need for an objective and concise global geometric reference. Georegistration and locational information improvements have achieved great success; however, world-wide ground reference imagery datasets are still lagging in terms of qualifying for analysis ready data (ARD). This paper illustrates improvements made to existing datasets with imagery derived from newer and more accurate spacecrafts like Landsat 8. Focus is specific to the Australian continent for the purposes of this paper. Discussions incorporated in this document revolve around the theoretical basis, formulation, and application of the space-based triangulation method at a continental scale for improvement to the accuracy of the GLS-derived ground control points. Additionally, the triangulation method involved in adjusting the spacecraft position, velocity, attitude, attitude rate, and ground control point locations, by linearization of the non-linear viewing geometry, so that the residual errors in the measured image points are minimized. The Australian block’s horizontal accuracy improved from 15.4 m to 3.6 m with the use of AGRI controls and from 15.4 m to 8.8 m without the use of AGRI controls. For more information follow this [link](https://pubs.er.usgs.gov/publication/70204191).