

GEOVIEW'S CAPABILITY OF USING SATELLITE IMAGES IN PREPARATION OF 5000 SCALE SPATIAL DATA

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Unavailability of 5000 scale data layers, for mapping in distant areas like Hambantota, Lunugamvehera, Thanamalwila, etc. is a vital issue in the development process. After the tragedy caused by Tsunami recently, government & non-governmental organizations faced with a big problem when reconstruction programs for affected people were begun due to not having enough data to see the real ground condition. Satellite images are the most reliable data source presently we have with the existing situation on the ground. But the images, which come directly from the sensors, without any correction cannot be either registrable to any topographic map or suitable for image mosaicking or merging.

This paper basically proposes an approach of preparing an Ortho Image using very high resolution space borne images, and further enhancing that ortho product to be used for ground reference. Using Quick Bird, Spot 5 & SRTM Digital Elevation Model as Raster data provided by Spatial Information Infrastructure & Reconstruction Monitoring Project and GPS data collected as vector data, attempted to reach the result.

Bundle adjustment using (Ground Control Points) GCPs completed with Tie points; optimize the Physical model associated with the image rectification process. Tie points used to connect images with each other & Root Mean Square (RMS) Residual was less than half pixel (0.21m). GCPs were in order to improve the positioning precision & RMS Residual was less than 2m (0.94m). Seam Lines computation & Radiometric enhancement also followed the process to achieve the final product. The main objective of this paper was to apply the above mentioned methodology for the images which explore the real ground condition in Scale 5000, in area including 14 GN Divisions in Lunugamvehera & Thanamalwila Area.