Creation of Digital Terrain Model using GE-I Stereo-pair to aid 'Railway Alignment Project'

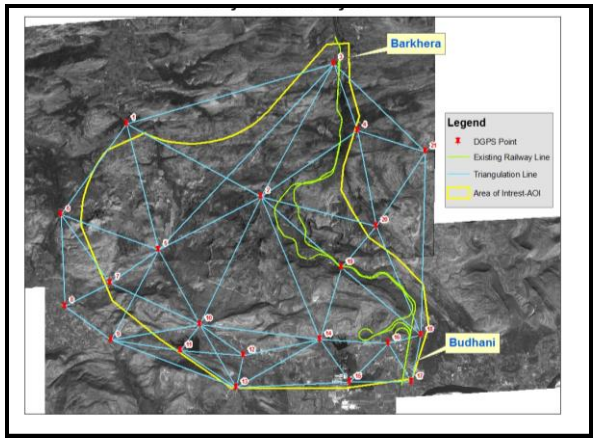


Fig.1 Study area of the project

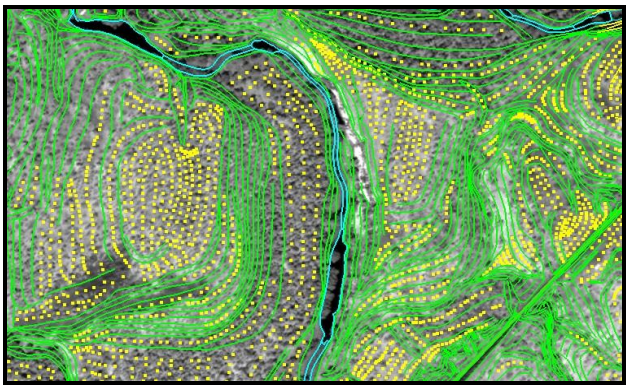


Fig.2 Break Lines and Mass Points in 3D Environment

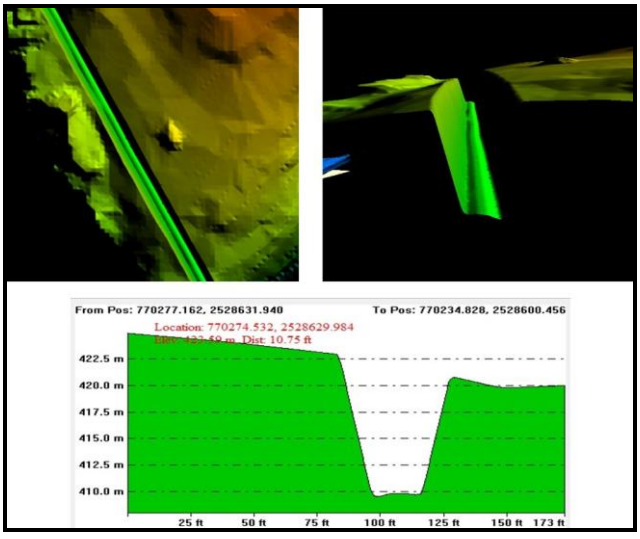


Fig.1 Top view, side view and cross section graph of study area

Business Need:

Projects in mountainous regions are accompanying with special features such as deep cuttings, high embankments, tall piers and long span bridges across deep gorges and fast flowing flash flood rivers with big boulders and unusually long tunnels etc. These challenges are enhanced in view of the terrain in young Himalayas so 3D analysis of Terrain is need of the day.

The business need was to create digital terrain model using Geoeye-1 stereo-pairs.

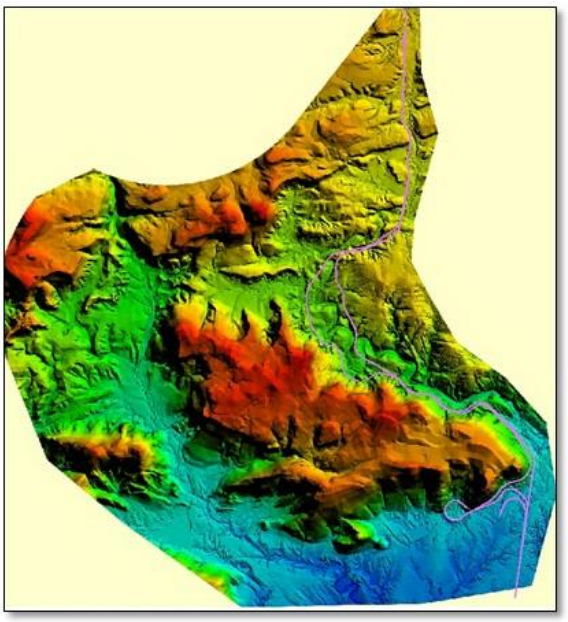
Inputs Used:

- Geoeye-1 Stereo-pairs
- DGPS survey points

Business Solution:

Excel Geomatics used Geoeye-1 Stereo pairs to create DTM of the study area. The process which are involved may be categorized as:

- Aerial Triangulation of GE-1 Satellite Stereo-pair
- Precise DTM creation using mass point and break-lines along proposed alignment
- Ortho Image Generation
- Data processing and format conversion



Project Shipment:

The following shipments were made-

i) DTM of the study area
ii) Draft Report

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