

Terrain Modeling and Feature Mapping for Ramban-Banihal Corridor, J&K, India

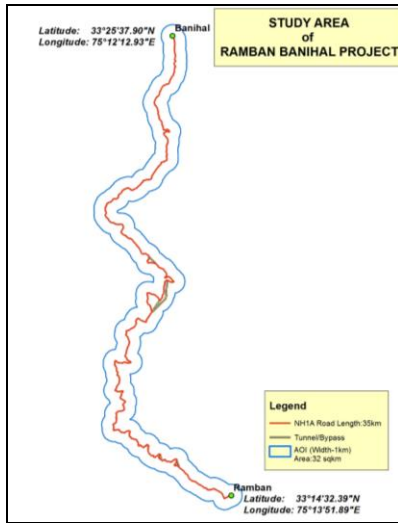


Fig.1 Study Area

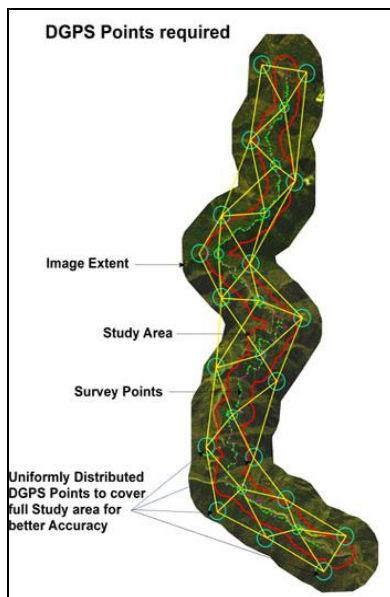


Fig2. DGPS Points required in Study Area

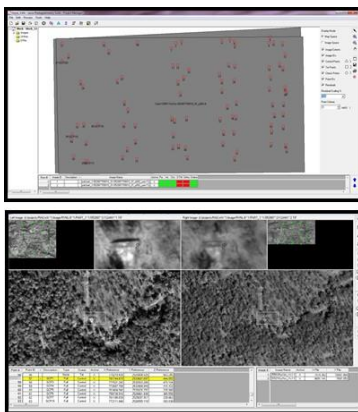


Fig.3. Block setup and point adjustment window

Business Need:

Three dimensional models are becoming an integral part of planning. Digital Terrain Model, can help in simulating the existing scenario and help in planning. These models are obtained by photogrammetry Technique. Worldwide satellite stereo-pairs are used successfully in creation of such maps in photogrammetric environment.

The business requirement was to generate Terrain Model using satellite stereo-pairs and map the geographical details.

Inputs Used:

- DG colored Satellite Stereo Pair with Resolution to a range of 0.5m
- Field collected DGPS points with X,Y and Z coordinate.
- Snapshot of each location for identification of DGPS points on the satellite Image.

Business Solution:

The appropriate satellite images were acquired to create the DTM of the area. The solutions can be pointed out as:

- Aerial Triangulation
- Break line & Mass Point
- Creation of DTM
- Creation of Ortho-Rectified Image
- Basic Landuse/Landcover feature extraction
- Basic Geological structure extraction



Fig4. DTM of the Study Area

Project Shipment:

The following shipments were made-

- DTM (1m Resolution)
- Ortho Rectified Satellite Image (0.5 m Resolution)
- Landuse/Landcover
- Output Vector
 - Contour (1m Interval)
 - Landuse/Landcover
 - Geological Structures

