

Adjusted errors of vertical position

	Mean Error	Max. Error
Zone46	0.006	0.023
Zone47	0.007	0.019

Unit: m

$$z = 3.8 \cdot \sigma = 3.8 \times 450 = 1.710 \text{ m}$$

$$z_{\text{Max}} = 4.9 \cdot \sigma = 2.205 \text{ m}$$

Quality Evaluation

- Inner orientation
Residuals on fiducial marks should be less than **0.03mm**
- Relative orientation
Residuals of vertical parallax on positive film should be less than **0.02mm**
- Model connection
Coordinate differences of same pass point should be less than **0.05%** of flight altitude, in each pass point between adjacent models.

Quality evaluation after block adjustment

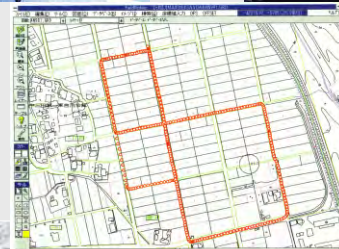
- Residuals of ground controls in the same block.
SD of horizontal and vertical residuals should be less than **0.02%** of flight height. Maximum **<0.04%** of flight height
- Residuals of intersection of bundle in the same block
SD should be less than **0.015mm**, Maximum **<0.030mm**
- Difference of Tie point in the same block
Horizontal and vertical differences should be less than **0.09%** of flight height.

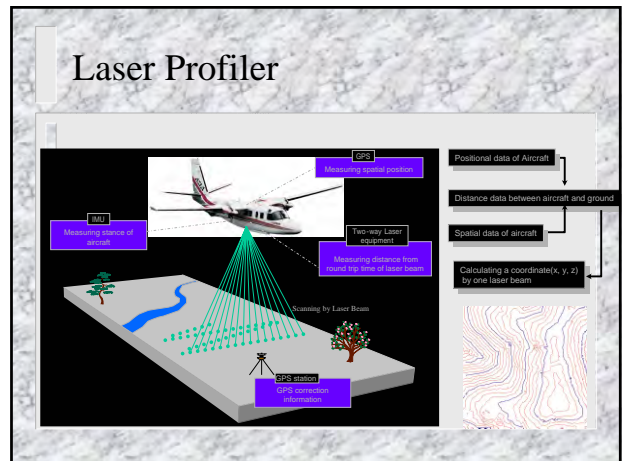
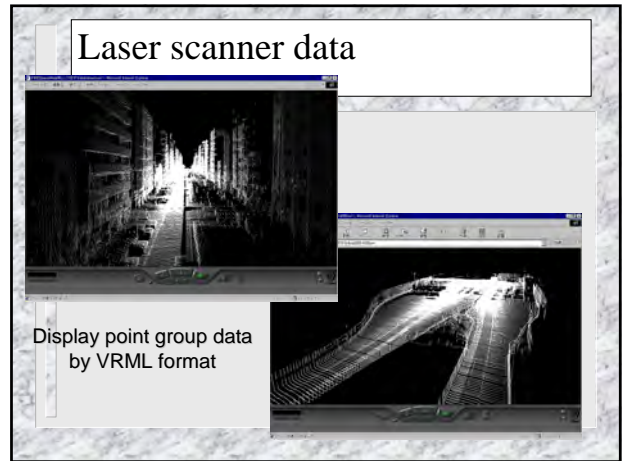
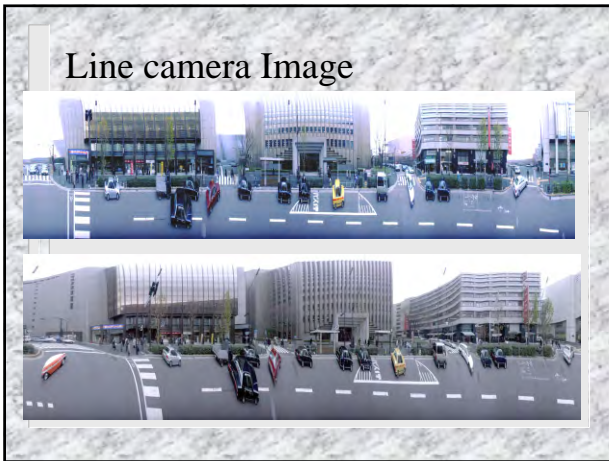
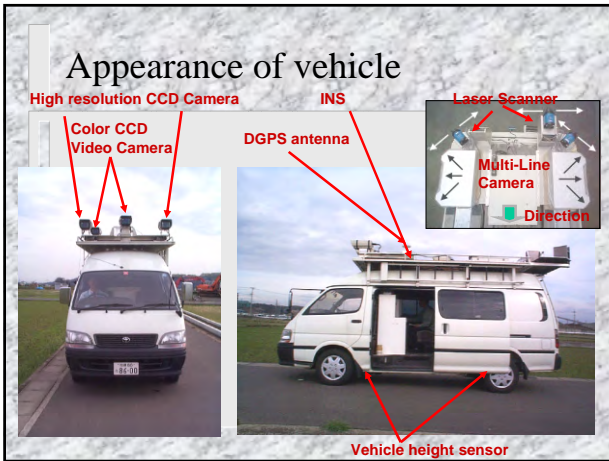
For more accurate adjustment

- Image data for observation
to acquire high quality image data
- Distribution of ground controls
to distribute GCP in proper location
- Establishment of air signal
to identify GCP based on signalization
- Plan of aerial photography
to add cross strip in order to robust models

Advance Technology to be applied aerial triangulation technique

Mobile Mapping

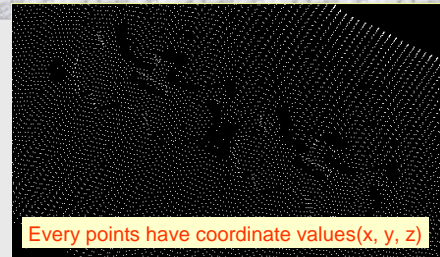




Appearance of aircraft



Distribution of survey Points

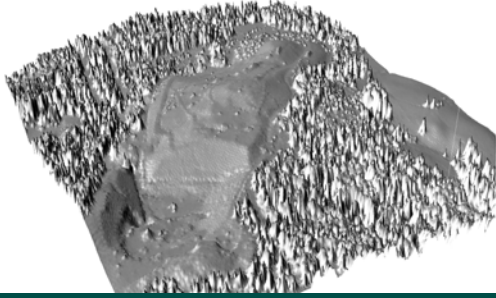


Every points have coordinate values(x, y, z)

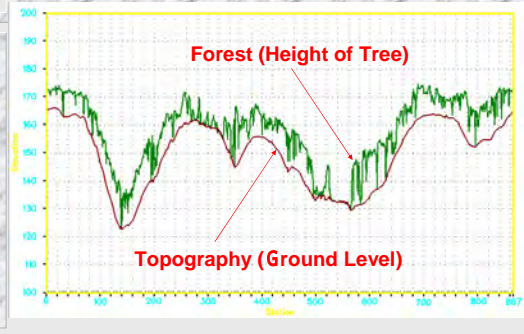
It's possible to measure at point interval of 1–2 m
to create high resolution DEM

Acquired initial terrain data

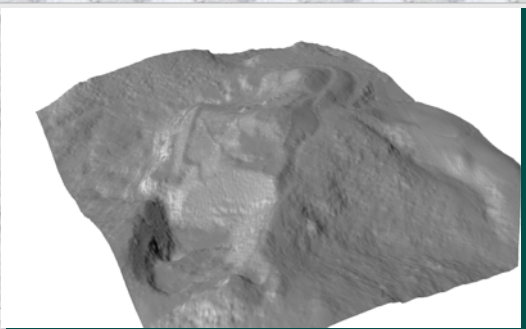
These terrain data include noise due to covered forest.



Section View



Corrected terrain data



Generation of Contour Line

