

Table 28 Topography (Slope and aspect)

	DATA OPTION 1: Airborne Laser Scanning	DATA OPTION 2: Stereo-photography
<i>Spatial Dimensions</i>		
Area to cover	Can be up to 1000km ² or more	Can be up to 1000km ² or more
Mapping unit	0.5m to 10m	0.1m to 5m
Positional accuracy	Within 5m or less dependent on GPS base station used	Within 1m
<i>Temporal Dimensions</i>		
When	User controlled	User controlled
How often	User controlled	User controlled
Variable to map	Land surface slope and aspect	Land surface slope and aspect
Environmental Restrictions	% Cover of vegetation height.	% Cover of vegetation height.
Processing technique	Ground and canopy return extraction, interpolation and ground and canopy mapping.	Softcopy Photogrammetry
(Output)	Raster or image surface with each pixel containing slope and aspect information	Raster or image surface with each pixel containing slope and aspect information and an orthophotograph free of radial distortions.
Resources – Hardware and Software	PC Image processing software GIS with image analysis capabilities.	PC Softcopy photogrammetry software with DEM and orthophoto production capacity.
Resource – Personnel	Trained and with experience in ALS mapping. Knowledge of area to be mapped	Trained and with experience in softcopy photogrammetry. Knowledge of area to be mapped
References: Note these are some example references	Freiburg (2008) Liu (2008)	

Freiburg, G. (2008). "Quantifying the influence of slope, aspect, crown shape and stem density on the estimation of tree height at plot level using lidar and InSAR data." International Journal of Remote Sensing, 29(5), 1511-1536.

Liu, X. (2008). "Airborne LiDAR for DEM generation: some critical issues." Progress in Physical Geography, 32(1), 31.