

Table 8 Vegetation Structure (Tree height)

	DATA OPTION 1: Radarsat, TerrsarX or ALOS Palsar	DATA OPTION 2: Airborne Laser Altimetry
<i>Spatial Dimensions</i>		
Area to cover	Up to 3600 km ²	User defined
Mapping unit	5 m -60 m	0.5 m – 2.5 m
Positional accuracy	Dependent on geo-referencing process	Sub-metre vertical and horizontal
<i>Temporal Dimensions</i>		
When	Approx 11 am	User defined
How often	Minimum every 4 days	User defined (can be < 1 day)
Variable to map	Tree height	Tree height
Environmental Restrictions	Terrain and significant relief	Terrain and significant relief Complex forest structure
Processing technique (Output)	Height extraction (Vegetation height map) Note: The ability to map specific targets will depend on their growth form and extent.	Height extraction (Vegetation height map) Note: The ability to map specific targets will depend on their growth form and extent.
Resources – Hardware and Software	PC Image processing software	PC Image processing software
Resource – Personnel	Trained in image radar data processing Knowledge of area to be mapped	Trained Lidar data processing Knowledge of area to be mapped
References: Note these are some example references	Toutin and Amaral (2000)	Clark et al. (2004)

Clark, M. L., Clark, D. B. and Roberts, D. A. (2004). "Small-footprint lidar estimation of sub-canopy elevation and tree height in a tropical rain forest landscape." Remote Sensing of Environment, 91(1), 68-89.

Toutin, T. and Amaral, S. (2000). "Stereo RADARSAT data for canopy height in Brazilian forests." Canadian journal of remote sensing, 26(3), 189-199.