

Table 24 Snow (water equivalent)

	DATA OPTION 1: Microwave sensor e.g. SSM/I or RADARSAT
<i>Spatial Dimensions</i>	
Area to cover	Up to 3600 km ²
Mapping unit	5m -60m
Positional accuracy	Dependent on geo-referencing process
<i>Temporal Dimensions</i>	
When	Approx 11 am
How often	Minimum every 4 days
Variable to map	Snow (water equivalent)
Environmental Restrictions	Cloud cover Terrain Vegetation cover
Processing technique (Output)	Image classification or feature detection to identify snow pixels, then snow water equivalent algorithm Land-cover type map and snow water equivalent estimates
Resources – Hardware and Software	PC Image processing software GIS with image classification module (e.g. ARCGIS Image Analyst)
Resource – Personnel	Trained in image classification Experience with microwave data Knowledge of area to be mapped
References: Note these are some example references	Foster et al. (2005) Bernier et al. (1999)

Foster, J. L., Sun, C., Walker, J. P., Kelly, R., Chang, A., Dong, J. and Powell, H. (2005). "Quantifying the uncertainty in passive microwave snow water equivalent observations." Remote Sensing of Environment, 94(2), 187-203.

Bernier, M., Fortin, J., Gauthier, Y., Gauthier, R., Roy, R. and Vincent, P. (1999). "Determination of snow water equivalent using RADARSAT SAR data in eastern Canada." Hydrological Processes, 13(18), 3041-3051.