

## Extending SAR capabilities

	Single polarization	Double polarization	Quad polarization	High Resolution
<b>Marine</b>				
Ship detection	■	■	■	■
Oil spill detection	■	■	■	■
Coastline mapping	■	■	■	■
Ocean features	■	■	■	■
<b>Sea ice</b>				
Ice edge/ concentration	■	■	■	■
Ice type	■	■	■	■
Iceberg detection	■	■	■	■
<b>Agriculture</b>				
Crop type	■	■	■	■
Crop damage	■	■	■	■
Tillage practice	■	■	■	■
Soil Moisture	■	■	■	■
<b>Hydrology</b>				
Flood mapping	■	■	■	■
Soil moisture	■	■	■	■
Snow mapping	■	■	■	■
Wetland mapping	■	■	■	■
<b>Geology</b>				
Structure	■	■	■	■
Lithology	■	■	■	■
<b>Forestry</b>				
Clear cut mapping	■	■	■	■
Burn detection	■	■	■	■
<b>KEY</b>				
<b>Polarization</b>	Satisfactory ■	Good ■	Ideal ■	
<b>High resolution</b>	No improvement ■	Significant improvement ■		



Top: Ultra-Fine mode simulation image of Ottawa, Ontario, resolution of three meters. (© CCRS. Acquired by CV-580 C-band SAR. Processed by CCRS.) Bottom: RADARSAT-1 Standard mode image, resolution of 25 meters. (© CSA. Received by CCRS. Processed and delivered by RSI.)



Colour composite image (HH, VV and HV polarizations) of agricultural fields in Southern Manitoba. (© CCRS. Acquired by CV-580 C-band SAR. Processed and provided by CCRS.)



Touzi Polarization Entropy image, generated with polarimetric data. (© CCRS. Acquired by CV-580 C-band SAR. Processed and provided by CCRS.)