

**TABLE A1: Observed & Projected Trends in Climate-related Factors**

Changes	Yukon & Mackenzie District		Western Arctic		Eastern Arctic	
	1950 - 2000	2050	1950 - 2000	2050	1950 - 2000	2050
Mean Temp °C increase	2 to 2.2	3 to 6	1.5 to 2	4 to 6	Slightly negative but positive since 1990	3
Winter Temp °C increase	4 to 4.5	4 to 8	1 to 2	6 to 8	0 to 1	4 to 6
Growing Degree days	40 to 60/decade	40 to 60/decade	20/decade	20/decade	-20 to +20/decade <sup>1</sup>	-20 to +20/decade <sup>1</sup>
Heating Degree days	-80/decade	-80/decade	-40 to -60/decade	-40 to -60/decade	+60/decade <sup>1</sup>	-60/decade <sup>1</sup>
Frost days change in numbers	0 to -1/decade	0 to -1/decade	-1 to -3/decade	-1 to -3/decade	+1 to -3/decade	-3/decade
Precipitation Total % increase	2 to 5	Up to 15	15 to 25	10 to 30	15 to 25	10 to 15
Annual Snow % change or mm/yr	-2 to +45 mm/yr	Up to 15%	+2 mm/yr	20%	-1 to +1 mm/yr	15%
Glaciers & Ice Sheets	North America Arctic - 450 km <sup>3</sup> loss (1960 - 1998) Accelerated loss to 2050					
Sea Ice	1978 - 2003 -5.6% /decade late summer: multi-year ice -6.7%/decade					
Sea Level Rise	1.8 to 3 mm/yr Subsiding crustal movement on coast	.2 to .6m 2100 Some estimates 1m	1.8 to 3 mm/yr Subsiding crustal movement	To 2100 .2 to .6m Some estimates 1m	1.8 to 3 mm/yr Rising crustal movement	.2 to .6m by 2100 Some estimates 1m
River Flows % change	+7	+12 to 30% mainly April to July		+19 to 20%	-10%	+10%
Intense Winter Storms increase	Increase in numbers of intense (8% (1950 - 2000)) and Projected Intense storms by 2050: +8% to 15%					
Rain intensity change in Days >10mm or %	+ve but small	+5 to 10% P20 yr to 10 yr return period	2 to 6 days per decade	+10 to 13% P20 yr to 10 yr return period	+ve but small	+15% P20 yr to 10 yr return period
Permafrost thaw	Ground T change 0.3 to 0.5°C/decade	-30% of area in South region	Thickening of surface melt layer.			

**Note 1** - negative trends became positive after 1990, Eastern Arctic