

Specialised Information

Climate of Pyeongchang

Located on the east side of Asia (Figure 1), the PyeongChang 2018 region has a continental climate, featuring dry and cold winters (Figure 2), which provides good conditions for operating both snow and ice competitions. The normal average temperature and relative humidity are −4.8 °C and 67% in the Olympic Games Period (9-25 February), and −0.4 °C and 67% for the Paralympic Games Period (9-18 March) in the mountain cluster (Table 1).

However, there exists a trend of rising temperature in the region, which can affect the competitions in particular during the Paralympics. Another feature of the climate in PyeongChang is that the amount of precipitation varies by year, ranging 0mm to around 100 mm for each Period (Figures 3-6). In addition, the region has possibilities of extreme weather, which can significantly influence the Games schedule. For example, the daily snowfall and max temperature records are 87.0 cm and 16.5 °C respectively for the Olympic Period in the mountain cluster (Table 2).

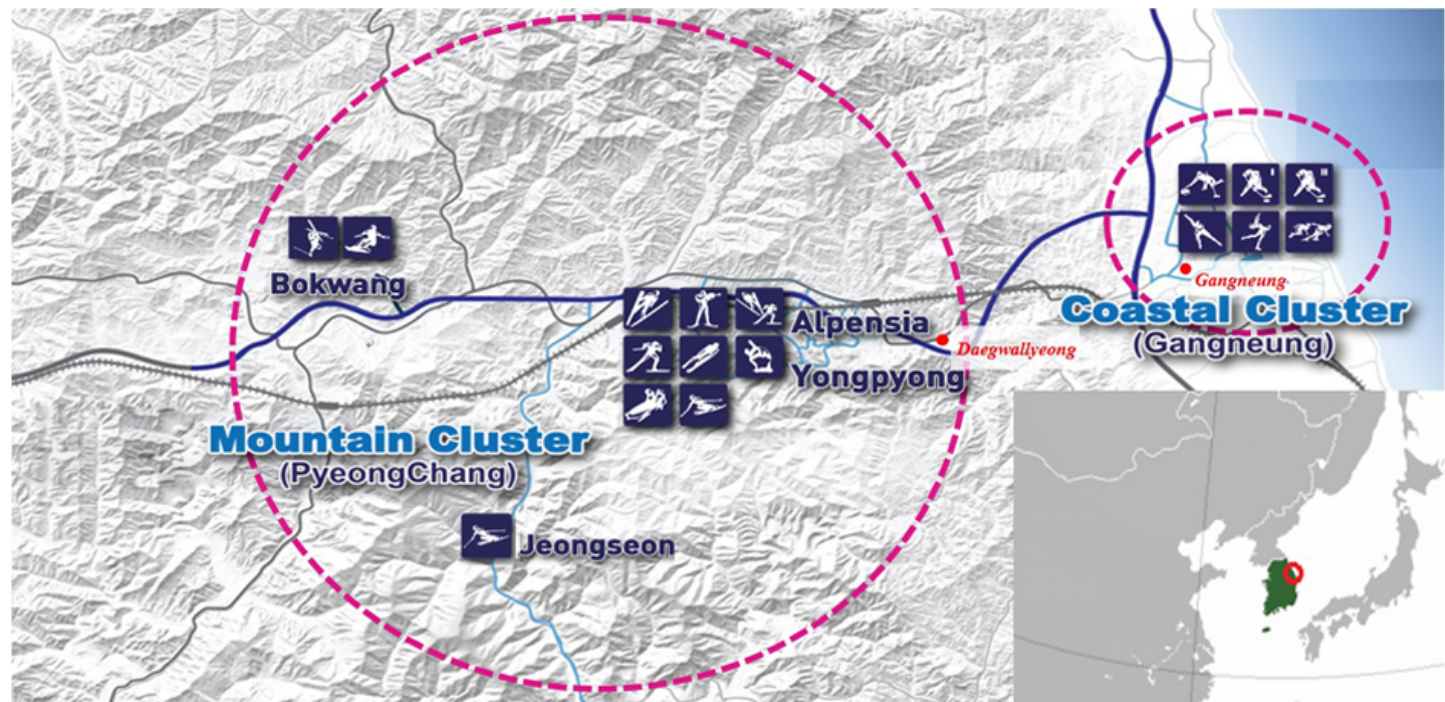


Figure 1 Locations of the PyeongChang 2018 venues and weather stations referred (red)

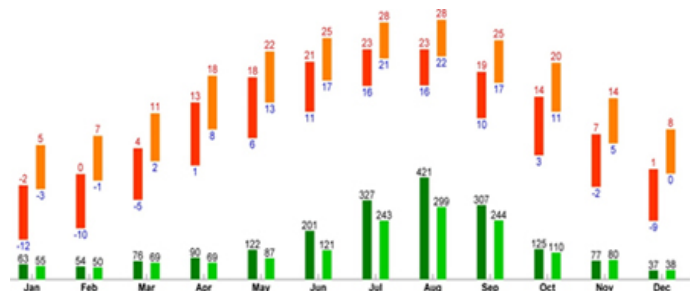


Figure 2 Mountain cluster (Daegwallyeong, 773m) (left) and coastal cluster (Gangneung, 26m) (right) monthly Climate Normals of max and min temperatures in °C (upper bars) and precipitation in mm (lower bars)

Element	Mountain cluster		Coastal cluster	
	Olympic period (9-25 Feb)	Paralympic period (9-18 Mar)	Olympic period (9-25 Feb)	Paralympic period (9-18 Mar)
Mean temperature (°C)	-4.8	-0.4	2.4	6.3
Max temperature (°C)	0.2	4.5	6.9	11.0
Min temperature (°C)	-9.8	-5.3	-1.4	1.8
Precipitation (mm)	36.7	23.1	38.2	17.7
Snowfall (cm)	41.3	18.6	15.2	3.5
Wind speed (m/s)	4.6	4.6	3.0	2.8
Relative humidity (%)	67	67	53	55

Table 1 Climate Normals for the mountain and coastal clusters during the Olympic and Paralympic Periods

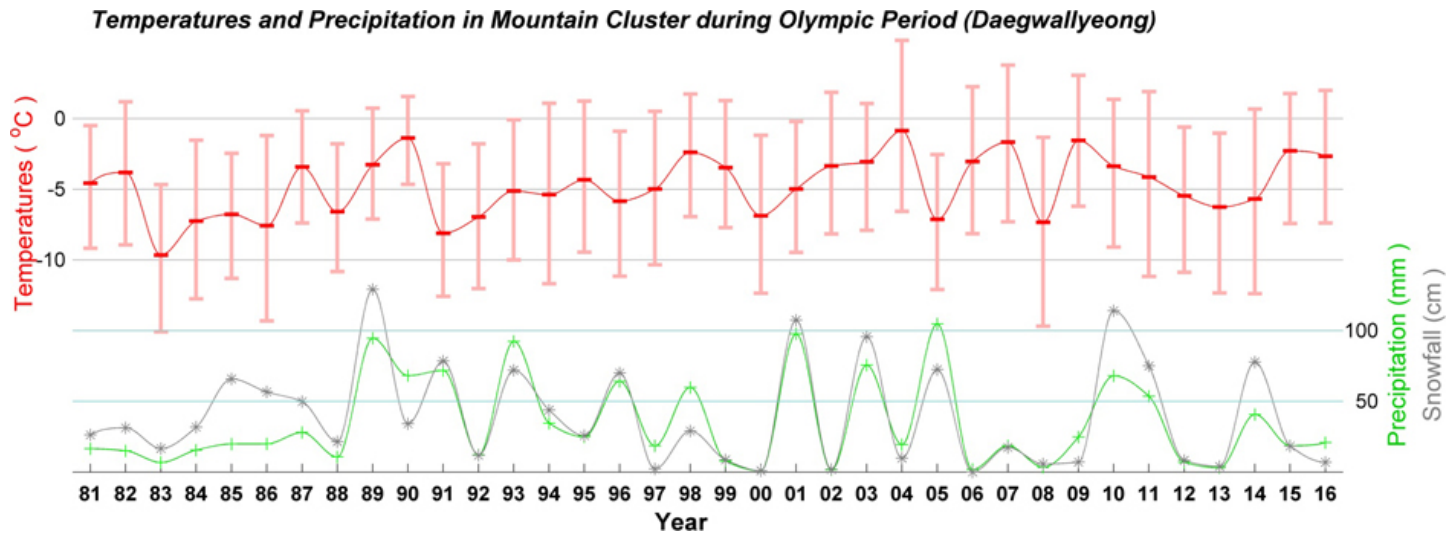


Figure 3 Mountain cluster (Daegwallyeong) variation of temperatures (average, min and max), precipitation and snowfall for the Olympic Period

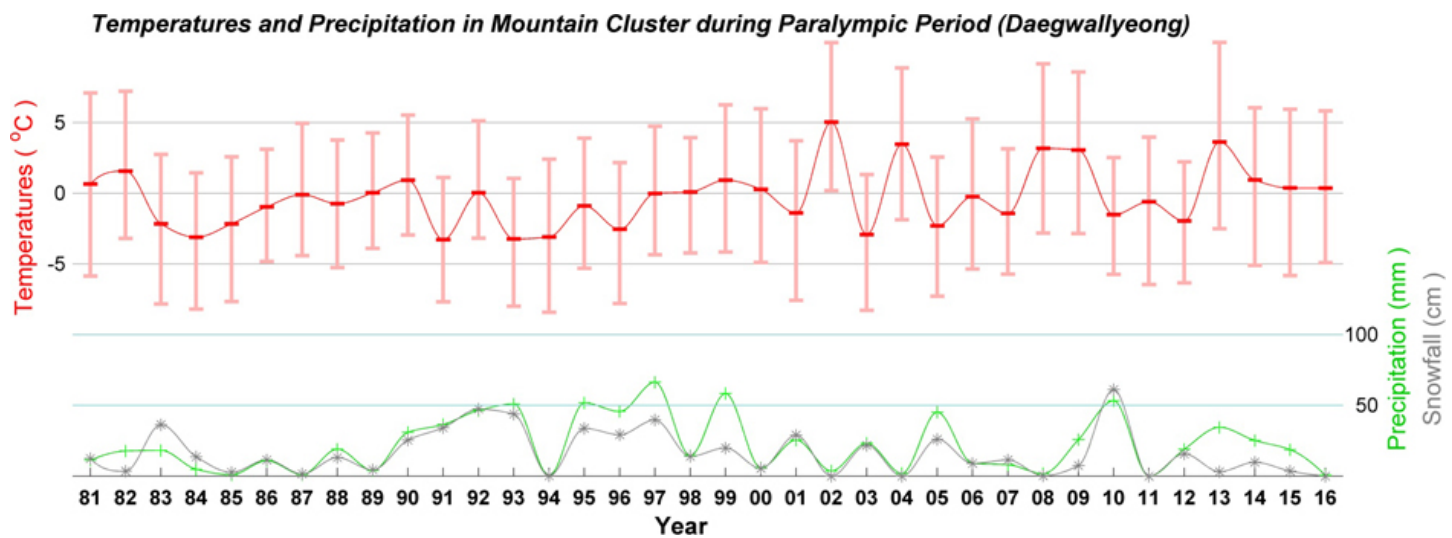


Figure 4 Mountain cluster (Daegwallyeong) variation of temperatures (average, min and max), precipitation and snowfall for the Paralympic Period

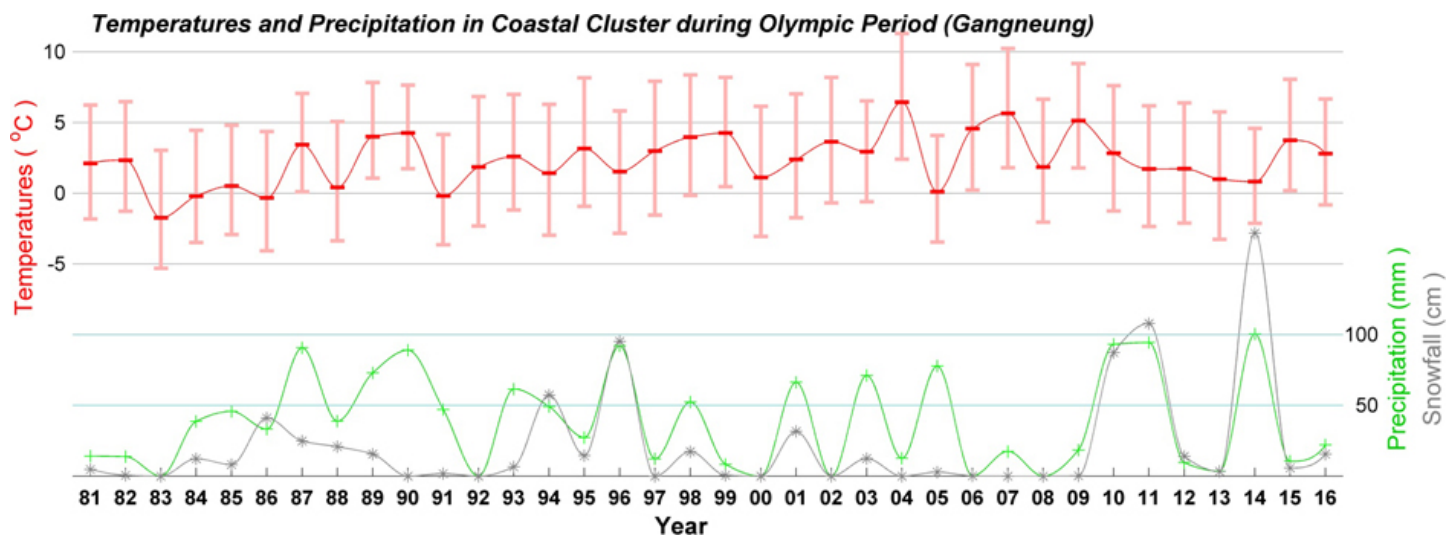


Figure 5 Coastal cluster (Gangneung) variation of temperatures (average, min and max), precipitation and snowfall for the Olympic Period

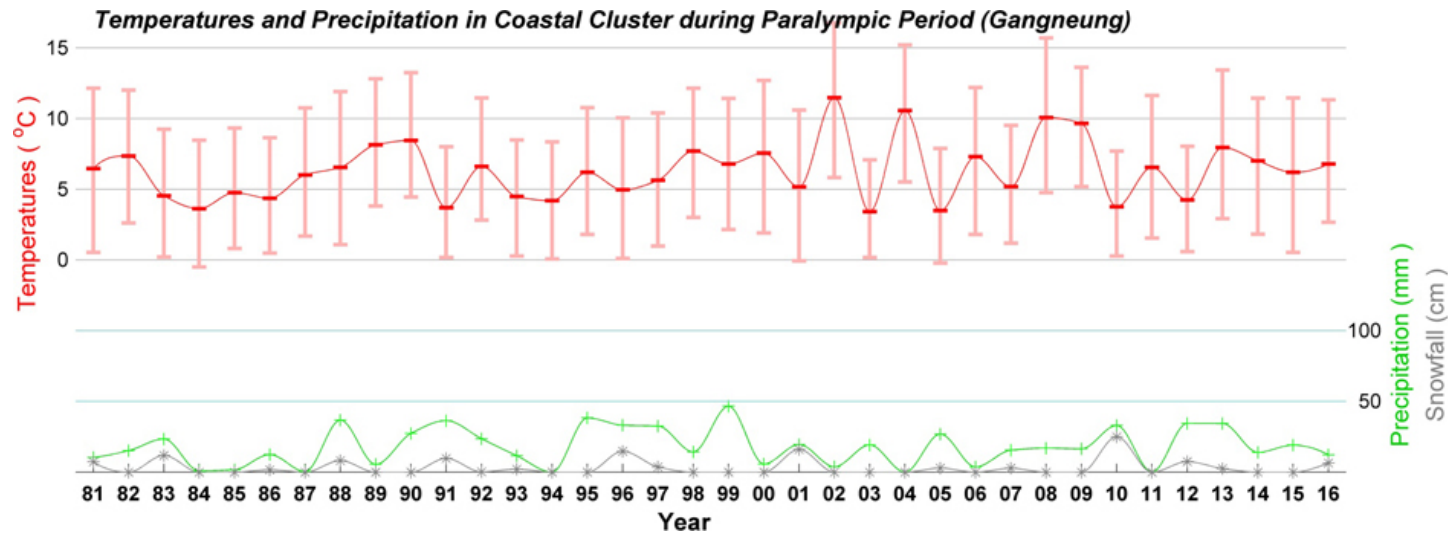


Figure 6 Coastal cluster (Gangneung) variation of temperatures (average, min and max), precipitation and snowfall for the Paralympic Period

Element			Olympic Period (9-25 Feb)		Paralympic Period (9-18 Mar)	
			Value	Date	Value	Date
Mountain cluster (Daegwallyeong*)	Average temperature (°C)	High	10.5	13-02-2009	13.8	18-03-2009
		Low	-18.1	23-02-1991	-11.5	12-03-1974
	Max temperature (°C)	High	16.5	20-02-2004	18.0	09-03-2013
		Low	-13.4	16-02-1977	-7.4	12-03-1974
	Min temperature (°C)	High	3.6	13-02-2009	10.5	18-03-2009
		Low	-27.6	15-02-1978	-18.0	11-03-2001
	Sea level pressure (hPa)	High	1044.5	18-02-2008	1044.6	16-03-1985
		Low	989.1	13-02-2009	997.0	09-03-2013
	Relative humidity (%)	Low	10	19-02-2004	10	13-03-1997
	Wind speed (m/s)	High	22.7	20-02-1990	19.0	18-03-1988
Coastal cluster (Gangneung)	Gust wind speed (m/s)	High	34.2	21-02-1991	30.0	09-03-1977
	Day precipitation (mm)	High	68.3	25-02-1989	30.1	09-03-1978
	Days snowfall (cm)	High	87.0	25-02-1989	38.0	10-03-2010
	Average temperature (°C)	High	14.4	25-02-1977	20.3	18-03-2009
		Low	-11.5	10-02-1920	-5.8	11-03-1950
	Max temperature (°C)	High	21.4	25-02-2010	24.0	17-03-1955
		Low	-7.5	10-02-1920	-1.0	10-03-1971
	Min temperature (°C)	High	9.7	21-02-2004	17.1	18-03-2009
		Low	-15.4	11-02-1957	-9.5	12-03-1950
	Sea level pressure (hPa)	High	1038.4	09-02-1937	1039.5	15-03-1985

Table 2 Weather records of PyeongChang 2018 region in the Games time