



KMA CLIMATE CHARACTERISTICS BRIEFING

(4 pages total)

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October 2010 Climate

- ◇ The mean temperature was similar to normal. however, the mean minimum temperature was higher than normal.
- ◇ The amount of precipitation was lower than normal.

- Climate characteristics of October 2010 and their long-term trends are analyzed based on data from 60 meteorological stations in Korea (national values) for the period of 1973-2010 (1908-2010 for Seoul).
- **The climatological characteristics of October 2010 were as follows:**
 - o For Korea (national statistics)
 - The mean (14.9°C), mean minimum temperatures (9.7°C) were 0.4°C, 0.9°C higher than normal, respectively. However, the mean maximum temperatures (20.5°C) was 0.1°C lower than normal.
 - The amount of precipitation (42.3mm) was 73.7% of normal. However, the average number of rainfall days (6.4 days) increased by 0.3 days compared to normal.
 - The average number of sunshine duration(180.3hours) decreased by 9.8% compared to normal.
 - o For Seoul:
 - The mean (14.5°C), mean minimum temperatures (10.4°C) were 0.1°C, 0.6°C higher than normal, respectively. however, the mean maximum temperatures (19.3°C) was 0.4°C lower than normal.
 - The amount of precipitation (25.6mm) was 51.9% of normal and the number of rainfall days (5.0 days) decreased by 1.6 days compared to normal.
 - The number of sunshine duration(194.6hours) was similar to normal.

□ Long-term climate trend for October

- o The October average temperatures (14.9°C) for Korea in the 2000's were 0.7°C higher compared with the 1970's. The mean maximum (21.2°C), and mean minimum temperatures (9.7°C) were 0.6°C and 1.0°C higher respectively compared with the corresponding values for the 1970's.
- o The precipitation amount for the month of October for Korea in the 2000's was 26.1% decreased than the corresponding values for the 1970's. The number of precipitation days for the same period (5.8 days) decreased by 1.1 days compared to the 1970's

※ Normal: 30-year (1971-2000) average.

※ National average: Average of values collected from 60 meteorological stations since 1973.

※ The analyzed data for Seoul date back to 1908.

※ 1920s: Average from 1921 to 1930

※ 1970s: Average from 1973 (1971 for Seoul) to 1980

※ 2000s: Average from 2001 to 2009

Appendix 1. October Climate Trends

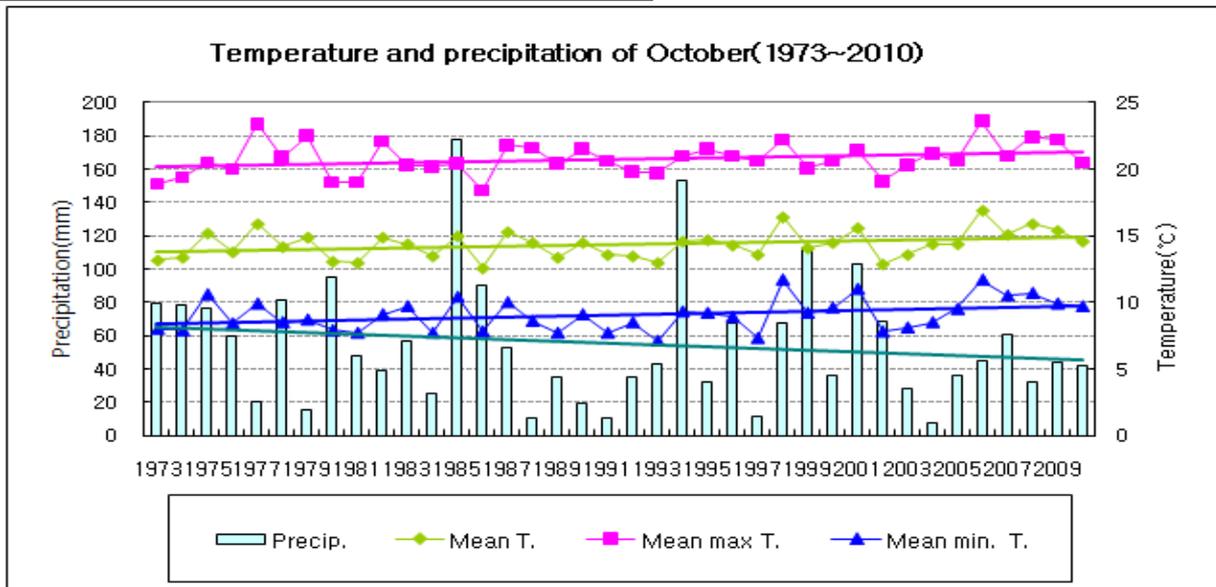


Fig. 1. Temperatures (mean, mean maximum, and mean minimum) and precipitation for the Republic of Korea for October (1973-2010)

□ October averages of meteorological elements for Korea (1973~2010)

Elements (National)	Oct 2010 (a)	Normals for Oct (1973-2000) (b)	a - b	Ranking since 1973 (up to 5th)
Mean temperature (°C)	14.6	14.2	0.4	
Mean max. temp. (°C)	20.5	20.6	-0.1	
Mean min. temp. (°C)	9.7	8.8	0.9	
Amount of precipitation(mm)	42.3	57.4	-15.1(73.7%)	
Rainfall days(day)	6.4	6.1	0.3	
Frost days(day)	1.7	1.9	-0.2	
Sunshine duration (hr)	180.3	199.8	-19.5(90.2%)	

□ October averages of meteorological elements for Korea by decade (1973-2010)

Decade	Mean temp. (°C)	Mean max. temp (°C)	Mean min. temp. (°C)	Precip. (mm)	Rainfall days	Frost days(day)	Sunshine duration (hr)
1973-1980 (a)	14.2	20.6	8.7	63.3	6.9	2.2	207.6
1981-1990 (b)	14.1	20.6	8.8	55.5	6.0	2.0	206.8
1991-2000 (c)	14.2	20.7	8.9	57.0	5.6	1.6	192.1
2001-2010 (d)	14.9	21.2	9.7	46.8	5.8	1.0	199.2
d - a	0.7	0.6	1.0	-16.5	-1.1	-1.2	-8.4
d - b	0.8	0.6	0.9	-8.7	-0.2	-1.0	-7.6
d - c	0.7	0.5	0.8	-10.2	0.2	-0.6	7.1

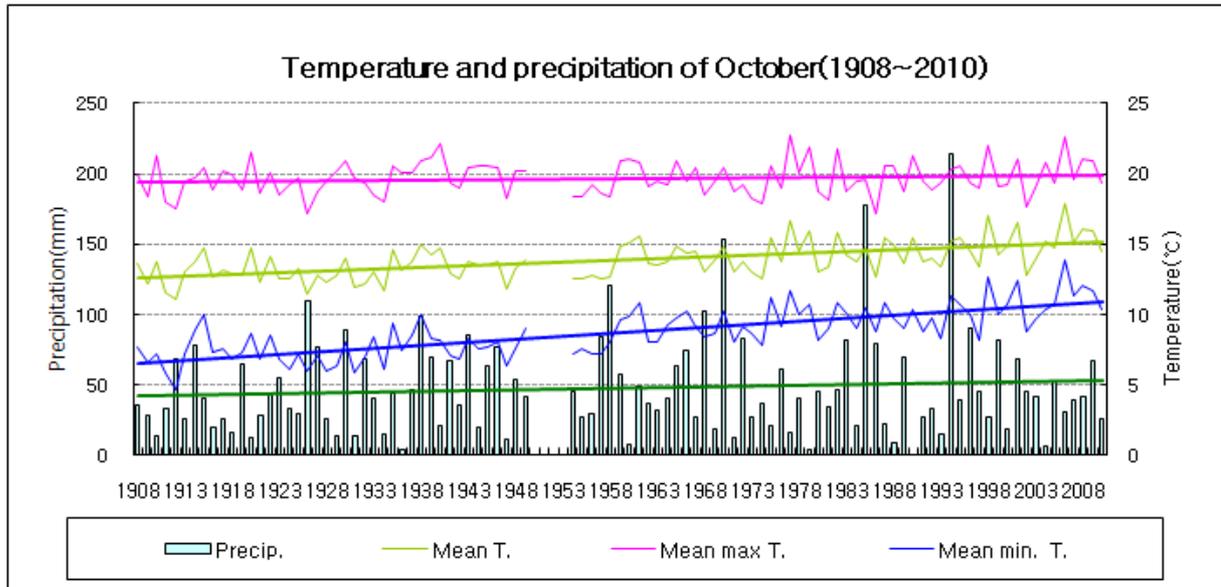


Fig. 2. Temperatures (mean, mean maximum, and mean minimum) and precipitation for Seoul (1908-2010)

□ **October averages of meteorological elements for Seoul (1971-2010)**

Elements (National)	Oct 2010 (a)	Normals for Oct (1971-2000) (b)	a - b	Ranking since 1973 (up to 5th)
Mean temperature (°C)	14.5	14.4	0.1	
Mean max. temp. (°C)	19.3	19.7	-0.4	
Mean min. temp. (°C)	10.4	9.8	0.6	
Amount of precipitation(mm)	25.6	49.3	-23.7(51.9%)	
Rainfall days	5.0	6.6	-1.6	
Frost days(day)	3.0	2.7	0.3	
Sunshine duration (hr)	194.6	200.5	-5.9(97.1%)	

□ **October averages of meteorological elements for Seoul by decade (1911-2010)**

Decade	Mean temp. (°C)	Mean max temp (°C)	Mean min. temp (°C)	Precip. (mm)	Rainfall days	Frost days(day)	Sunshine duration (hr)
1911-1920	13.0	19.5	7.4	38.6	7.4	4.1	234.7
1921-1930 (a)	12.8	19.3	6.9	50.3	6.6	4.9	225.0
1931-1940	13.4	20.1	7.9	42.0	7.4	4.7	232.3
1941-1949	13.2	19.9	7.6	50.5	6.7	3.0	239.0
1954-1960	13.3	19.3	8.1	53.0	7.1	3.1	218.8
1961-1970	14.2	19.8	9.3	59.7	6.0	3.6	211.2
1971-1980 (b)	14.2	19.7	9.5	34.4	7.1	3.2	194.2
1981-1990	14.4	19.6	9.8	54.2	6.0	2.8	207.5
1991-2000	14.6	19.7	10.0	59.3	6.7	2.2	199.6
2001-2010 (c)	15.3	20.1	11.1	41.8	6.1	0.8	189.4
c - a	2.5	0.8	4.2	-8.5	-0.5	-4.1	-35.6
c - b	1.1	0.4	1.6	7.4	-1.0	-2.4	-4.8