



NATIONAL CLIMATE REVIEW OF KMA (total 6 pages)

Division	Meteorological Resources Division
Contact	LEE Jae-Won
Phone/email	+82-2-2181-0882/ 2seun@korea.kr
Release	Nov. 11, 2013

Monthly (October) 2013 Climate Summary

- ◇ The mean temperature (15.4 °C), the mean maximum temperature (21.7 °C) and the mean minimum temperature (10.3 °C) for October 2013 nationwide were above normals.
- ◇ The nationally-averaged precipitation (52.9 mm) was nearly normal.

- Climate features and long-term trends of October 2013 have been analyzed with the data collected at the 45 meteorological stations throughout Korea (national average) from 1973 to 2013 (1908-2013 for Seoul).

※ Normal : Average value of climatic element data collected from 1981 to 2010

- **The climatic characteristics of October 2013 are described as follows:**

o For Korea (whole country),

- The mean temperature (15.4 °C), the mean maximum temperature (21.7 °C) and the mean minimum temperature (10.3 °C) were 1.1 °C, 0.9 °C and 1.3 °C above normals, respectively.
- The nationally-averaged precipitation was 52.9 mm, which was 109.8% of normal. The number of the days of rain was 5.6 days, which was 0.1 days less normal.
- The total number of the hours of sunshine was 222.6 hours, which was 111.7% of normal.

o For Seoul,

- The mean temperature (15.8 °C), the mean maximum temperature (21.2 °C), the mean minimum temperature (10.9 °C) were 1.0 °C, 1.4 °C, 0.6 °C above normals, respectively.
- The amount of precipitation was 13.5 mm, which was 26.1% of normal, which was below normal.
- The number of the days of rain was 4.0 days, which is 2.3 days less than normal.
- The total number of the hours of sunshine was 249.9 hours, which was 125.7% of normal.

□ **Long-term trend of October 2013 climate**

o For Korea (whole country),

- National mean temperatures of October 2000s (2001-2010) was 0.7 °C higher than that of the same month of 1970s.
- The nationally-averaged precipitation of October 2000s was 17.3 mm more than that of the same month of 1970s.
- The number of the days of rain of October 2000s was 1.1 days less than that of the same month of 1970s.
- The total number of the hours of sunshine in October 2000s was 0.1 hours less than that of the same month of 1970s.

o For Seoul,

- The mean temperatures of October 2000s (2001-2010) was 1.1 °C higher than that of the same month of 1970s.
- The precipitation of October 2000s was 7.4 mm more than that of the same month of 1970s.
- The number of the days of rain in October 2000s was 1.0 days more than that of the same month of 1970s.
- The total number of the hours of sunshine in October 2000s was 4.8 hours less than that of the same month of 1970s.

Appendix 1 Climate features of October 2013 (Nationwide)

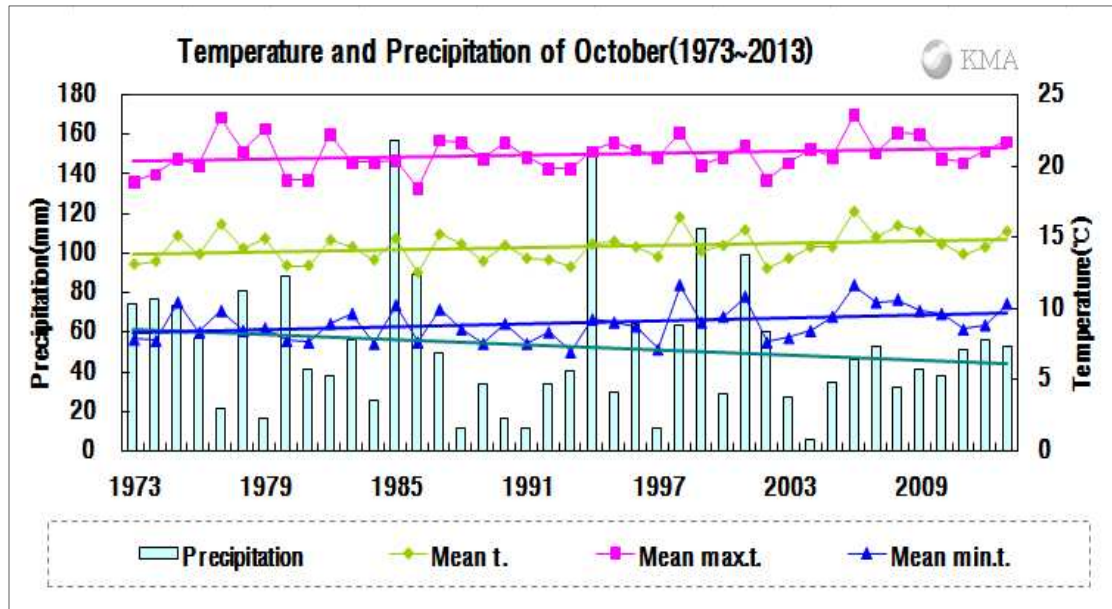


Fig 1. Temperatures (mean, mean maximum, and mean minimum) and precipitation in South Korea during October (1973-2013).

□ Average values of meteorological elements across Korea during October (1973~2013)

Elements (whole country)	Oct. 2013(a)	Oct. 2012(b)	Normals of Oct. (1981-2010) (c)	a-b	a-c	Rank since 1973 (within 5th)
Mean temperature (°C)	15.4	14.3	14.3	1.1	1.1	
Mean maximum temp. (°C)	21.7	21.0	20.8	0.7	0.9	
Mean minimum temp. (°C)	10.3	8.8	9.0	1.5	1.3	
Precipitation (mm)	52.9	56.4	50.2	-3.5(218.6)	2.7(109.8)	
Days of rain (day)	5.6	4.3	5.7	1.3	-0.1	
Sunshine duration (hour)	222.6	235.4	199.3	-12.8(94.6)	23.3(111.7)	
Mean cloud amount (1/10)	3.8	3.6	4.1	0.2	-0.3	
Days of daily temperature range greater than 10°C(day)	20.4	22.2	20.7	-1.8	-0.3	

□ Average values of meteorological elements across Korea during October for each decade (1973~2010)

Year	Mean temp. (°C)	Mean max. temp. (°C)	Mean min. temp. (°C)	Prep. (mm)	Days of rain (day)	Sunshine duration (hour)	Mean cloud amount (1/10)	Days of daily temperature range greater than 10°C(day)
1973-1980(a)	14.1	20.6	8.6	61.0	6.8	196.2	4.3	20.8
1981-1990(b)	14.0	20.6	8.6	51.8	5.9	202.1	4.3	20.8
1991-2000(c)	14.2	20.7	8.7	55.1	5.5	199.8	4.1	21.2
2001-2010(d)	14.8	21.2	9.6	43.7	5.7	196.1	4.0	20.1
2013(e)	15.4	21.7	10.3	52.9	5.6	222.6	3.8	20.4
d-a	0.7	0.6	1.0	-17.3	-1.1	-0.1	-0.3	-0.7
d-b	0.8	0.6	1.0	-8.1	-0.2	-6.0	-0.3	-0.7
d-c	0.6	0.5	0.9	-11.4	0.2	-3.7	-0.1	-1.1
e-d	0.6	0.5	0.7	9.2	-0.1	26.5	-0.2	0.3

Appendix 2 Climate features of October 2013 (Seoul)

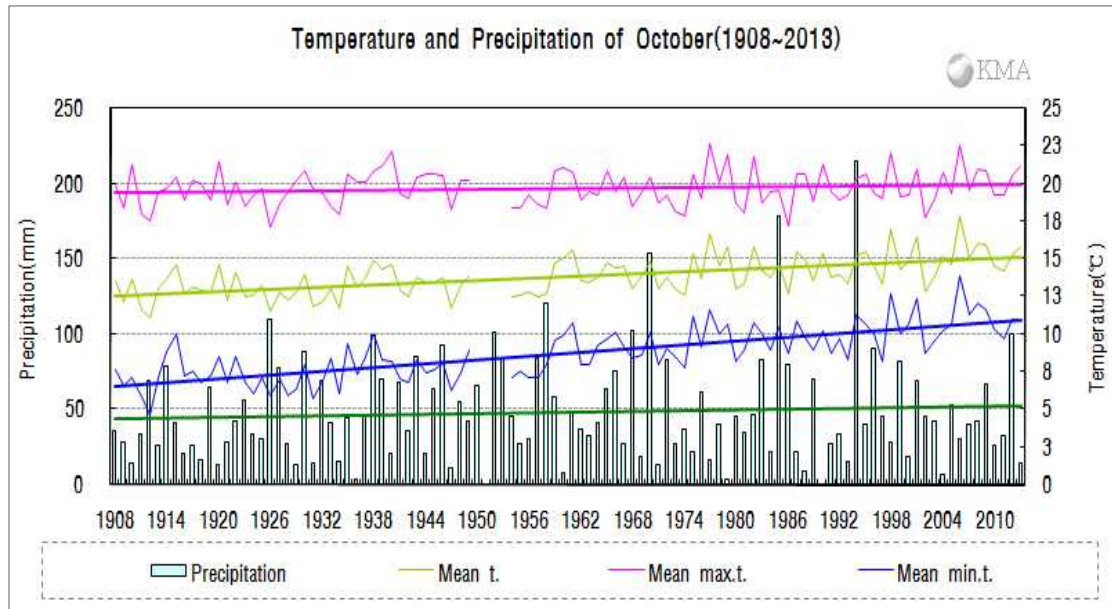


Fig 2. Temperatures (mean, mean maximum, and mean minimum) and precipitation in Seoul during October (1908-2013).

□ Average values of meteorological elements in Seoul during October (1973-2013)

Elements (Seoul)	Oct. 2013(a)	Oct. 2012(b)	Normals of Oct. (1981-2010)(c)	a-b	a-c	Rank since 1908 (within 5th)
Mean temperature (°C)	15.8	15.3	14.8	0.5	1.0	
Mean maximum temp. (°C)	21.2	20.5	19.8	0.7	1.4	
Mean minimum temp. (°C)	10.9	11.0	10.3	-0.1	0.6	
Amount of precipitation (mm)	13.5	99.3	51.8	-85.8(13.6)	-38.3(26.1)	
Days of rain (day)	4.0	6.0	6.3	-2.0	-2.3	
Sunshine duration (hour)	249.9	235.4	198.8	14.5(106.2)	51.1(125.7)	
Mean cloud amount (1/10)	2.9	3.6	3.9	-0.7	-1.0	
Days of daily temperature range greater than 10°C(day)	21.0	11.0	14.2	10.0	6.8	

□ Average values of meteorological elements in Seoul during October for each decade (1911-2010)

Year	Mean temp. (°C)	Mean max. temp. (°C)	Mean min. temp. (°C)	Prep. (mm)	Days of rain (day)	Sunshine duration (hour)	Mean cloud amount (1/10)	Days of daily temperature range greater than 10°C(day)
1911-1920(a)	13.0	19.5	7.4	38.6	7.4	234.7	4.5	23.1
1921-1930	12.8	19.3	6.9	50.3	6.6	225.0	4.3	23.1
1931-1940(b)	13.4	20.1	7.9	42.0	7.4	232.3	4.2	23.0
1941-1949	13.2	19.9	7.6	52.3	6.8	239.0	4.0	24.6
1954-1960	13.3	19.3	8.1	53.0	7.1	218.8	4.0	20.6
1961-1970	14.2	19.8	9.3	59.7	6.0	211.2	4.1	19.5
1971-1980(c)	14.2	19.7	9.5	34.4	7.1	194.2	4.0	17.9
1981-1990	14.4	19.6	9.8	54.2	6.0	207.5	4.3	15.6
1991-2000	14.6	19.7	10.0	59.3	6.7	199.6	3.9	15.0
2001-2010(d)	15.3	20.1	11.1	41.8	6.1	189.4	3.5	12.1
2013(e)	15.8	21.2	10.9	13.5	4.0	249.9	2.9	21.0
d-a	2.3	0.6	3.7	3.2	-1.3	-45.3	-1.0	-11.0
d-b	1.9	0.0	3.2	-0.2	-1.3	-42.9	-0.7	-10.9
d-c	1.1	0.4	1.6	7.4	-1.0	-4.8	-0.5	-5.8
e-d	0.5	1.1	-0.2	-28.3	-2.1	60.5	-0.6	8.9