

Abstract

A statistical study is made of the appearance frequency of precipitating-days in the Japan Islands. The daily precipitation data during the 30-year period of 1961-1990 are used at 114 meteorological observation stations of JMA, and those during the 27-year period of 1964-1990 are used at 4 stations (Station Number 47918-47945) in Okinawa. In this study, the precipitating-day (P-D) is defined as a day in which precipitation was recorded, that is, days with precipitation ≥ 0 mm/day. Statistical elements in this study are the following.

1. P-D: Appearance frequency of P-D
2. 3CP-D: Appearance frequency of days when P-D continued for 3 days or more
3. 5CP-D: Appearance frequency of days when P-D continued for 5 days or more
4. P1: Appearance frequency of days with precipitation ≥ 1 mm/day
5. P5: Appearance frequency of days with precipitation ≥ 5 mm/day
6. P10: Appearance frequency of days with precipitation ≥ 10 mm/day
7. P30: Appearance frequency of days with precipitation ≥ 30 mm/day
8. Daily precipitation amounts averaged on P-Ds
9. Daily precipitation amounts averaged on all Days

The statistical results are shown by the 5-day mean of 30-year (for stations in Okinawa 27-year). Figures and tables of the results are shown for the 118 stations. Some results are shown by maps.

Examining the statistical results, brief descriptions are presented on the time variations of the precipitation area through the year, differences in the appearance frequency of P-D and daily precipitation amounts between the "Baiu period" (the pre-summer rainy season in Japan) and the "Akisame period" (the early autumn rainy season in Japan), regional and local characteristics of the appearance frequency and daily precipitation amounts of P-D.

This study gives quantitative definitions to questions which are related to the precipitation climate of Japan, e.g., the period of the "Akisame" season, the spatial-variation of the precipitation zone in the "Akisame" season, the characteristic differences of "Baiu" precipitation between the southwestern part and the northeastern part of the Japan Islands, the existence of the "Baiu" season in Hokkaido (the northern part of Japan, 47401-47440), and so on.

The statistical results will be useful as basic data for experimental observation, the

simulation of climatic change, the development of the forecast technique and the study of synoptic situations and disturbances around the Japan Islands.