for an individual basin. Unless some meteorological or topographical explanation can be provided, the relations developed should provide smooth depth–area and depth–duration curves and properly envelop all moisture-maximized rainfall amounts. In a comprehensive study, sets of DAD curves would be developed for surrounding locations to ensure regional consistency.

2.13.5 Seasonal variation

Any one of the procedures described in section 2.10, except possibly section 2.10.2, may result in seasonal curves of PMP that are obviously misleading. For this reason, it is advisable to try several procedures to see if there is agreement between the resulting seasonal variation curves. Judgement on whether a derived curve is representative or not should be based on a comparison with actual storms observed at various times during the critical season.

As mentioned in section 2.10, the seasonal variation of PMP differs with duration of storm rainfall and size of area, and several seasonal variation curves may have to be derived for different durations and areas. Also, a seasonal variation curve does not imply that maximized storms can be transposed in time without regard to seasonal limitations on storm types. The curve may be used only to adjust the level of PMP to various times of the year. Storm types and patterns, however, differ from month to month and a July storm, for example, is rarely adaptable to April conditions. Storm transposition in time is usually limited to 15 days, but a longer period, such as one month, may be used when storm data are sparse. In some regions where specific storm types occur over a several month span, for example, the West Coast of the United States in winter, transposition in time of several months may be justified.

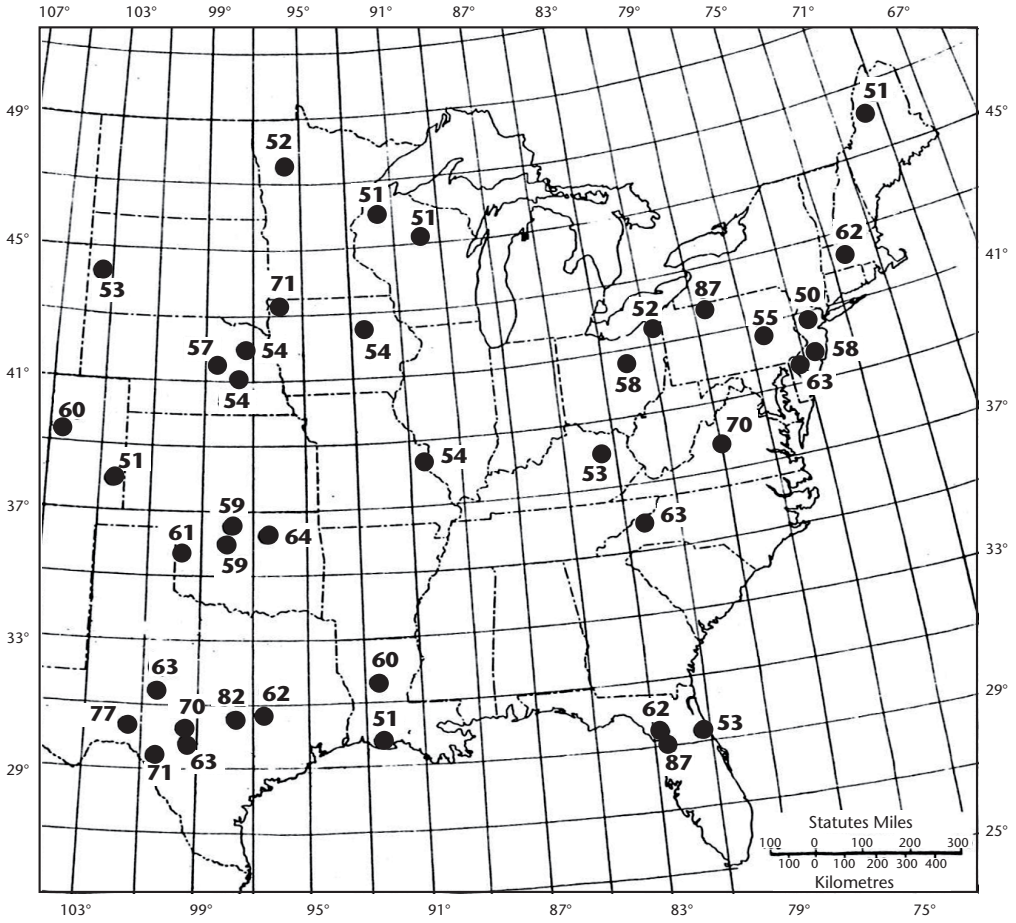

Figure 2.18. Observed rainfalls expressed as a percentage of PMP in the United States, east of the 105th meridian ≥ 50 per cent of all-season PMP for the 24-hour duration and an area size of 518 km^2 (Riedel and Schreiner, 1980).