Precipitable water The total atmospheric water vapour contained in a vertical column of unit cross-sectional area extending between any two specified levels, commonly expressed in terms of the height to which the liquid water would stand if the vapour were completely condensed and collected in a vessel of the same unit cross-section. The total precipitable water in the atmosphere of a location is that contained in a column or unit cross-section extending from the earth's surface all the way to the "top" of the atmosphere.

Persisting *n*-hour dewpoint The dewpoint value at a station that has been equalled or exceeded throughout a period of *n* consecutive hours. Durations of 12 or 24 hours are commonly used, though other durations may be used at times.

Probable maximum precipitation (PMP) Theoretically, the greatest precipitation for a given duration that is physically possible over a given watershed area or size of storm area at a particular geographic location at a certain time of the year, under modern meteorological conditions.

Probable maximum flood (PMF) The theoretical maximum flood that poses extremely serious threats to the flood control of a given project in a design watershed. Such a flood could plausibly occur in a locality at a particular time of year under modern meteorological conditions.

Pseudo-adiabat Line on thermodynamic diagram showing the pressure and temperature changes undergone by saturated air rising in the atmosphere, without ice-crystal formation and without exchange of heat with its environment other than that involved in assuming that the liquid water, formed by condensation, drops out.

Pseudo-adiabatic Referring to the process described by the pseudo-adiabat.

PMP storm pattern The isohyetal pattern that encloses the PMP area, plus the isohyets of residual precipitation outside the PMP portion of the pattern.

Rawinsonde A radiosonde which is tracked by radar or radio-theodolite to measure the wind aloft.

Relative humidity Ratio of actual water vapour content to saturation content, or total water vapour capacity, expressed as a percentage.

Research on literature Some characteristics (for example, storm occurrence dates, types and spatio-temporal distribution), sometimes even including peaks, volumes and processes, of past floods can be deduced by applying the principles and experiences of modern hydrometeorology to literature and historic records (for example chorographies, ancient books, reports to emperors or empresses, epigraphs and newspapers). Such research can provide information on extraordinary floods that occurred before modern hydrological and meteorological observation stations were set up.

Residual precipitation The precipitation that occurs outside the area of the PMP portion of the PMP storm pattern placed on a drainage. Because of the irregular shape of a drainage, or because of the choice of a PMP pattern smaller in area than the area of the drainage, some of the residual precipitation can fall within a drainage. A particular advantage in the consideration of residual precipitation is that of allowing for the determination of concurrent precipitation, that is, the precipitation falling on a nearby drainage as compared with that to which the PMP pattern has been applied.

Saturation Upper limit of water vapour content in a given space; solely a function of temperature.

Sequential maximization The rearrangement of observed storms or portions thereof into a hypothetical sequence such that the time interval between storms is at a minimum in order to maximize values for given durations.

Shear line A narrow zone between two air masses where wind direction changes significantly over a relatively short distance.

Sounding measurement (by pibal, radiosonde, aircraft, or other means) of the vertical structure of the atmosphere above a station. Also the graph of the distribution of the elements with height or pressure.

Spatial distribution The geographic distribution of precipitation over a drainage according to an idealized pattern storm of the PMP for the storm area.

Spatial maximization The transposition of two separate storms or portions of them that occurred in or near a particular basin to one or more critical locations in the basin so as to obtain maximum runoff. In this procedure two separate storms or portions of storms are combined into a composite isohyetal pattern.

Spillover That part of orographically induced precipitation which is transported by the wind in a direction which has a horizontal component so