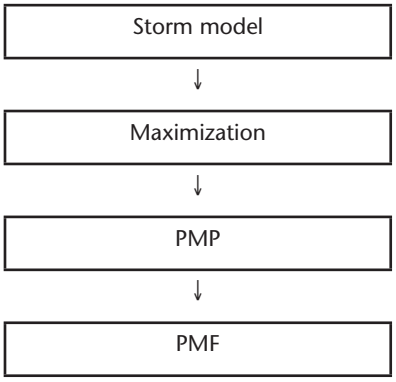
dimension of such a mass of air is generally of the order of 20 km or less and forms a cumulonimbus cloud. Convective rain is typically of greater intensity than either of the other two main classes of rainfall (cyclonic and orographic) and is often accompanied by thunder. The term is more particularly used in those cases in which the precipitation covers a large area as a result of the agglomeration of cumulonimbus masses.

Convergence Horizontal shrinking and vertical stretching of a volume of air, accompanied by net inflow horizontally and internal upward motion.

Cyclone That atmospheric pressure distribution in which there is a low central pressure relative to the surroundings. It is characterized on a synoptic chart by a system of closed isobars, generally approximately circular or oval in form, enclosing a central low pressure area. "Cyclonic circulation" is anticlockwise in the northern hemisphere and clockwise in the southern hemisphere (the sense of rotation about the local vertical is the same as that of the earth's rotation).

Deduction of qualitative characteristics of storm model The PMP/PMF estimation method based on watershed area includes the main steps:



Obviously, identification of storm models is an important step in PMP estimation, in which qualitative characteristics (including storm type, synoptic meteorological cause, occurrence period, rain belt pattern, location of storm centre, storm duration, storm process pattern, and so forth) of storm models are first deduced. The deduction aims to ensure PMP/PMF derived by the storm model meets the requirements of a given project design for PMF while the overall analysis of PMP/PMF is based on reliable physical data, and overall, reliability of estimation results are therefore under control.

Deduction of qualitative characteristics of a storm model is based on the theory that PMP/PMF for a given project in a watershed has only a single type of synoptic meteorological cause, and a great number of facts have proved the conclusion.

Depth–area curve Curve showing, for a given duration, the relation of maximum average depth to size of area within a storm or storms.

Depth–area–duration values Combination of depth–area and duration–depth relations.

Dewpoint The temperature to which a given parcel of air must be cooled at constant pressure and constant water-vapour content in order for saturation to occur.

Drainage-averaged PMP After the PMP storm pattern has been distributed across a specific drainage and a computational procedure applied, drainage-averaged PMP estimates are obtained. These average depths of precipitation include that portion of the PMP storm pattern that occurs over the drainage, both PMP and residual (see definition for residual precipitation).

Effective elevation The elevation at a point determined from a chart where topographic contours have been smoothed to reflect the effect of terrain of the precipitation process for a particular magnitude of storm. The actual elevation at the point may be either higher or lower than the effective elevation.

General storm A storm event which produces precipitation over areas in excess of around 1 300 km^2 and durations longer than 6 hours and is associated with a major synoptic weather feature.

Hectopascal (hPa) Unit of atmospheric pressure equal to 1,000 dynes/cm^2, standard atmospheric pressure being 1013.2 hPa.

Historical flood Large floods that occurred before modern hydrological observation stations were set up. Moreover, some characteristics (dates of occurrence, flood levels and peak floods) can be determined through historical flood surveys.

Historical flood survey The water level and the discharge of a flood peak, and sometimes the volume, the process and the recurrence period of a flood, in a particular year decades ago, hundreds of years ago or even earlier are derived through analyses and calculations based on field surveys in a particular place or a particular reach, and if possible, surveys and researches in combination with relics (water marks on ancient buildings and steles) and records in literature.