

Cloud observation

Observations of cloud consist of sensory observations of the physical characteristics of clouds including their extent (vertical and horizontal), structure and form, and instrumental observations – of their height above the ground.

The essential requirements of an international system for cloud observations is that it should enable observers to record them in such a way that the users of the information can, independently of any language, interpret the meaning of the records in accurate descriptive detail. The various classifications and specifications approved by WMO with this object in view should therefore be used.

The classification of cloud forms is of very great use. However, their identification (of necessity by visual observation) is often very difficult since clouds can exhibit many different aspects. Reliable observations of clouds can therefore best be made by keeping as close and continuous a watch as possible on their development; it is not sufficient merely to make a brief examination of the sky at the observation hour.

Complete, accurate and reliable cloud observations provide a great deal of information about the structure of the atmosphere. They also provide useful information for the prediction of future weather developments.

Observation of clouds fall into three categories:

- a) Estimation of the amount of cloud
- b) Recognition of the forms of clouds present
- c) Measurement or estimation of the height of the cloud base

Cloud forms

The problem of identifying cloud forms is not an easy one, as there is a gradual transition between the various types of clouds. Reliable cloud observations can best be made by keeping as close and continuous a watch as possible on their development. It is not sufficient merely to make a brief examination of the sky at the observation hour.

In studying the various cloud forms, continually refer to photographs of the clouds. When

attempting to identify clouds in the sky, always consider the appropriate definitions and study the corresponding photographs, if you are in doubt. The reference in this paragraph is to the international cloud atlas or the abridged version thereof.

Care should be taken to avoid unconsidered guessing and the best safeguard against this is knowledge of the evolution of the clouds under consideration. On occasions of fog which is so thick as to make it impossible to tell whether there is cloud above or not, the state of the sky should be recorded as sky obscured. If the cloud can be seen through the fog, the cloud amount should be estimated as well as circumstances permit. If the sun, moon or stars can be seen through the fog and there is no evidence of cloud above the fog, the state of the sky should be recorded as clear.