

A Science Service Feature

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? WHY THE WEATHER ?

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SCOPES, METERS AND GRAPHS

The instruments available for observing any particular element of weather can usually be divided into three classes. Those of the first class have no scales attached to them and provide no definite measurements. They merely indicate in a rough way the relative values of the elements observed. Naturally the name of an instrument of this character ends in the syllable "scope".

Instruments of the second class provide scale measurements, and therefore are properly called "meters". The earliest device for indicating warmth and cold was a "thermoscope". When it was fitted with a scale it became a "thermometer". Torricelli's tube with its column of mercury for showing the pressure of the air is commonly referred to as the first barometer, but as it had no scale it was really a "baroscope". "Hygrosopes" show whether the air is dry or moist, while "hygrometers" furnish definite measurements of humidity. The "weather-house" with its little wooden figures of a man and a woman ("Jocky" and "Jenny"), is a hygroscope.

Instruments of the third class with their own record of atmospheric conditions, and their names generally have the suffix "graph". The modern meteorological observatory is equipped with a "thermograph" for recording temperature, a "barograph" for recording atmospheric pressure, a "hygrograph" for recording humidity, a "hyetograph" (or pluviograph) for recording rainfall, and so on. A "meteorograph" records two or more meteorological elements.

Unfortunately, though these distinctions between "scopes" "meters" and "graphs" are generally observed in the naming of meteorological instruments, they are sometimes ignored. Thus a Weather Bureau instrument for measuring temperature at a distance, though provided with a scale, is called a "telethermoscope", when it is really a telethermometer, and there are similar inconsistencies in the names of several weather instruments used abroad.

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