

Dec. 8

? WHY THE WEATHER ?

Dr. Charles F. Brooks,  
Secretary, American Meteorological Society,  
discusses:

THE WEATHER'S HABIT

Weather very often repeats itself. A rainy day, or week, or month, or year, for example, is more apt than not to be followed by another rainy day, week, month, or year. The same is true of a dry or hot or cold period of weather. For example, at Brussels, Belgium, the probability of a change the next day to fair weather after seven days with rain is only 25 per cent, and of a change in temperature after 7 warm or cold days only 15 per cent.

To produce any kind of weather we have a certain combination of conditions, such as surface temperature, air temperature and moisture, and therefore such weather as results will tend to repeat itself so long as the fundamental situation remains unchanged. It is more remarkable, perhaps, that our weather changes as often as it does, than that it tends to stay the same for longer or shorter periods.

In any portion of the earth the amount of solar heat received, called insolation, changes but gradually with the progress of the seasons. The resulting general temperatures of the continents and oceans, in consequence, change but slowly, even more slowly than does the insolation, especially in the case of the ocean surface and deeply snow-covered ground. If the general conditions favor the formation of a storm or an accumulation of cold air in a certain region and its travel thence to another region, a series of storms or cold waves may follow the first, giving much the same round of weather time and again for from two to eight weeks. Therefore, the weather may be said to acquire habits.

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