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A Science Service Feature

? WHY THE WEATHER ?

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

BALLOON RACING AND THE WEATHER

Summer is not the best season for balloon racing, according to Dr. C. Le Roy Meisinger, aeronautical meteorologist of the U. S. Weather Bureau. The spring is the best time, for then there is a greater likelihood of good weather combined with a variety of wind conditions in the free air.

The free balloon, having no motive power for driving it horizontally, is carried along by the wind. It can be controlled by the pilot only in altitude. When he throws ballast overboard the balloon rises; when he allows gas to escape from a valve at the top of the bag, the balloon descends. The problem of the racing balloonist, so far as weather is concerned, is to plan a flying program that will enable him to take maximum advantage of favorable winds aloft. If, at various levels in the atmosphere, there are air currents moving in different directions and with different speeds, the pilot is called upon to exercise his skill in the selection of an altitude where winds are most favorable. To illustrate the point, in the National Elimination Race from Milwaukee in 1922, the winner landed in Quebec, after only 17 hours in the air, while the winners of second and third places landed in Missouri after about 40 hours in the air.

In the recent race from Indianapolis, July 4, the balloonists encountered very light winds, and in several cases, severe thunderstorms, which are a serious menace to lighter-than-air-craft. Stagnant air conditions, with which thunderstorms are frequently associated in summer, prevent balloons from making great distances, and since these light winds may prevail to great elevations they limit the opportunity for the use of skill and judgment on the part of the pilot. Moreover, bodies of water, such as the Great Lakes, are not so hazardous when balloons are flying in moderate or high winds, since the time spent over water is thus lessened, as at times of light winds and thunderstorms.

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