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? WHY THE WEATHER ?

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RAINFALL CONTRASTS

By Charles Fitzhugh Talman,
Authority on Meteorology.

Under certain circumstances there are often very striking differences in the amounts of rainfall received at places near each other. Prof. S.S. Visher writes on this subject:

"In general, there is remarkable contrast in the amount of rainfall received by nearby stations in those parts of the tropics where the wind blows from the same general direction for long periods. Under such conditions one slope of a mountain range may be arid while the other is drenched, and lesser extremes occur even on slight hills. This sort of thing happens locally in high latitudes but is not characteristic, since with the frequent changes of wind direction produced by cyclonic storms neither side long remains the lee side; hence, it is only where there is no adequate source of moisture on one side of the range that one side is normally dry."

Thus, he says, no such remarkable differences of rainfall within short distances are found in the Appalachians, Alps, Caucasus or even the Rockies as in mountainous regions of the trade-wind belt, where the wet side receives several times as much rain as the dry side only a few miles away. Within 17 miles of one of the rainiest known places in the world - the summit of Mt. Waialeale, in the Hawaiian Islands - where the average annual rainfall is believed to be something like 436 inches, there is a rainfall station, Waiawa, on the leeward side of the mountain, where the rainfall averages only about 22 inches a year. In another mountainous district of the same islands, the station at Eke, 4,600 feet above sea level, has an average of about 246 inches, while Puuhele, 10 miles southeast, receives only about 16 inches.

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