

greatest decrease had occurred, there was practically nothing which could have been drained. Some drainage would increase precipitation by allowing the air to become hotter, thereby favoring stronger convection. Mr. Reed wondered whether some vapor from the Pacific Ocean, a small though rather continuous source, were not important with other vapor as the basis of Iowa's rainfall. Dr. Humphreys thought it probable. Mr. Miller said that precipitation observed by regular Weather Bureau stations in recent years had been less in winter and greater in summer.

WHERE IOWA GETS HER WEATHER

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While some of Iowa's many types of weather are of her own manufacture, most are imported, often from thousands of miles away. Weather maps show that severe cold waves come from the Arctic Ocean north of Alaska and that unusually warm muggy spells come with winds sweeping northward from the Caribbean Sea and Gulf of Mexico. Fortunately, however, the winds do not often bring such misfit weather so rapidly from distant sources, and, consequently, the extremes become softened en route. In fact, so complex are the movements of the air that it is difficult at times to trace sources.

When winds from different quarters meet over Iowa stormy weather is almost always generated: under these conditions arise the heaviest thunderstorms, hailstorms and tornadoes of the warmer half year and the ice storms, snowstorms and blizzards of the colder season.

Why Iowa gets more wind from one source one year and from another source a different year is a question not only of North American weather but also of world weather, for the distribution of air over the earth varies from year to year with changes in general temperature distribution and its long chain of consequences. Thus, for example, the winter weather of the interior of North America appears to be related to major deviations in the great tropical region about the Indian Ocean.

On the weather that comes, Iowa sets her own stamp, more or less effectively depending on how long the imported air stays within its borders. The extremes of distant climes are thus tempered: the Arctic cold is warmed; the tropical heat is cooled; dry winds are humidified and damp ones dried. While the process of air conditioning is at times slow and painful, Iowa's usual weather is fine for the crops and pleasant to live in.

NOTE: The aeronautical and upper air papers that comprised the closing session of the Des Moines meeting will be briefly discussed in the May Bulletin. Two of these papers, by Wesley L. Smith, and W. J. Humphreys, were published in the December, 1929, *Mo. Weather Rev.* Others will appear in later issues.

Fog caught fliers aloft when it suddenly invaded New York during the late February warm spell. They were able to land, however, in field and mudhole. The air mail was held on the ground.—*New York Times.*