

Why did it rain cats and dogs?

In the previous section, we offered an overview of the winds changing direction and blocking cyclone influence in Western Europe. We saw how excessive evaporation determined air to flow in from north-east. But what happened with the increased humidity of the air? What chain of physical phenomena was set in motion?

a. The general picture

First and most important picture: when there is less humidity in the air, it is easier for the cold air to take control. During the winter season, when the Northern Atmosphere is drier, general circulation decrease makes it easier for the polar air to travel to southern latitudes and to determine lower temperatures in many other regions. Some may even wonder about the appearance of such arctic conditions. January 1940 reflected this exact situation. North America, China and Europe froze under extreme low temperatures and there was plenty of snow everywhere. We will first deal with the excessive rain in Western Europe and then, in a subsequent section of this chapter, with the situation of North America in autumn 1939 and January 1940. However, the record winter of 1939/40 in North Europe was 'homemade' due to naval warfare in its seas and to the forming of 'dry air', which may have been responsible for the extreme cold month of January 1940 throughout the Northern Hemisphere.



200% to 300% rain above average
during October & November 1939

The next important picture is about the situation in which precipitations actually 'dilute' the atmospheric humidity. If it rains abundantly in one place, precipitations statistically diminish in other places until humidity restores average equilibrium again. This process may take more than a few weeks. If war can cause abundant precipitations during the winter season, nature needs much more time to 'fill' the gap during the summer season. So far this information represents only physical laws and not facts.

Hardly had WWII started when it began to rain excessively in Western Europe, from Berlin and Basel to Paris, Amsterdam and London, for three months: 200% above average in September, 300% in October, and more than 200% in November. Greenwich saw a higher rainfall only in 1888, and before that in 1840. In some places at the southern end of Maginot/Westwall Line there were recorded 30 days of rain during October 1939. A number of other locations had up to 24 days of rain.

The appearance of all the excessive rain in West Europe raises an essential question: where did all that water vapor come from?