

Extreme Weather Conditions across Large Areas of Libya during the Period from 18 – 26 September 2026

From September 18 to 26, 2026, widespread weather instability affected Libya, characterized by heavy thundercloud activity and intense rainfall. The weather pattern initially concentrated over the northwest and central regions before shifting toward the southwest, where it triggered valleys runoff, flash floods and water accumulation in several regions.

The instability began gradually on September 18 marked by the development of cumulonimbus and thunderclouds over scattered regions in western Libya. It then intensified and expanded significantly during the period from September 22 to 25.

This weather condition was driven by an influx of tropical and subtropical moisture toward North Africa, which collided with cooler air in the upper atmosphere at the 500 mb level. This interaction enhanced atmospheric instability, fueling the development of deep convective clouds.

The local topography, particularly Nafusa Mountain, enhanced cloud development and led to significant variations in rainfall totals between neighboring regions. This weather condition peaked in several regions during September 24 and 25. Then, weakened in the northwest as the cloud and rain activity gradually shifted toward the central, southwestern and southeastern regions during September 26.

The observing stations of the National Meteorological Center recorded rainfall amounts during this weather event. Totals in several regions ranged from approximately 25 mm to 79.7 mm, showing high spatial variability due to the localized nature of the thunderstorm. The most notable rainfall totals included the following:-

Jadu: 30.0 mm - Mizdah: 36.0 mm - Zintan: 36.4 mm - Benwliid: 39.0 mm - Yefren: 39.0 mm - Tazmert Yefren: 45.0 mm - Garian: 55.4 mm - Sirte: 79.7 mm.

The NMC closely monitored this weather condition before and during its onset, issuing a series of early warnings and alerts based on the evolving condition and the observational and forecasting data. As the condition intensified and its impacts expanded, the NMC upgraded the warning to a Severe Orange Alert. This designated a high-risk level due to forecasts of heavy to very heavy rainfall in some regions, accompanied by strong winds, hail, valleys runoff, flash floods and water accumulation in low-lying areas.

These early warnings aimed to enable necessary precautionary measures against the potential risks posed by heavy rains, flash floods and valleys runoff. The advisories covered several regions, including Garian, Yefren, Nalut, Mizdah, Nasmah, Ash-Shuwayrif, Benwliid, Tarhuna, Sirte, Jufra region, Hamada, Ghadames, Wadi Ash-Shati, Sebha, Ghat and Obari, and other regions across central and southwestern Libya.

Widespread heavy rainfall and flash floods affected the infrastructure and properties across multiple regions. Tragically, in Sukna region of Al-Jufra Municipality, a family's vehicle was swept away by a rushing valley, leading to three fatalities.

