

# The effects of the "New Climate" Warming on Western Mediterranean: Situation of the Recent Extreme Events

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Since the nineties of the last century, climatological research following a great scientific advance in the field of prediction, not the variability and evolution of the different climatic parameters was beginning to be clearer!

But today, since the beginning of 2005, certainly due to oceanic thermal cumulations, and the shift of climatic zones towards poles in selective forms (more intense on the oceans present on the continents); Climatic events do not evolve according to the usual and expected rhythms: atmospheric circulation, precipitation, temperatures, seasonal phenomena, etc. These conditions are a spatiotemporal evolution and distribution, which characterize the new "global climate", by the new atmospheric regime imposing the Meridian Atmospheric Circulation (MAC), alternating the conditions of Freshness (humidity) and Heat (drought) along the year.

In this new situation, Western Mediterranean, located in the climate transition zone, is fully affected by the "New Climate". Usually, the atmospheric response to major climatic events (ENSO) in this region such as "El Niño" was characterized by the establishment of the NAO positive index, stability and drought, due to dominance Zonal Atmospheric Circulation in winter. On the other hand, in the "La Niña" episode, the negative index of the NAO and the predominant Meridian Atmospheric Circulation and precipitation became abundant.

Since the beginning of this century, qualified meteorological events of "exceptional !" causing floods have continued to occur in Western Mediterranean, with increasing recurrence, prompting us to wonder about the "new" mode of hydro-thermal function of the climate system that induces torrential rains, as well as its effect on environments and societies.

Thanks to spatial observation and monitoring of meteorological conditions over the last 15 years, these types of alternating Heat / Cold conditions have become predictable, enabling decision-makers today to prepare adequately for the management of related risks to the "New Climate" warmed.

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