

The North Sea – Caspian Pattern (*NCP*) - main atmospheric forcing affecting the temperature and precipitation regimes in the Middle East

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Recent studies related to the *North Sea – Caspian Pattern (NCP)*, show that this upper level (500 hPa) teleconnection between the North Sea and the northern Caspian differentiate between above and below normal temperatures better than other well-known teleconnections such as the *SO* or the *NAO*.

During the negative phase of the teleconnection (*NCP-*), an increased northerly anomaly circulation over the Eastern Mediterranean is observed and therefore, this phase represents above normal temperatures. The opposite is true during the positive phase (*NCP+*). These results are observed in all stations in the region extending over the entire region from Greece to Iran.

The relationship between the *NCP* and the rainfall regime is more complex. Below or above rainfall totals depend on the trajectory related to each phase and station (maritime or continental). However, even in regions in which there are only slight differences in the total rainfall amounts, such as in central Turkey, yet major differences in the spatial structure of the rain can be observed.