



What is the origin and impact of vortices initiated downwind of Hoggar Mountains ?

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Using an original approach to detect tropical depression vortices (TDVs) in the interim ECMWF Re-Analyses (ERA-Interim) reveals that TDVs are regularly initiated south of the Hoggar Mountains . The initiation of these TDVs is associated with a deepening of a depression downwind of the orography due to a reinforcement of the north-easterly low-level (Harmattan) wind. Some of these TDVs move south-westward to the Atlantic Ocean where they can intensify and reach tropical cyclone strength. The origin of these TDVs — in particular their relation with the extratropics and with African easterly waves — and their impact on the East Atlantic cyclogenesis will be discussed.