

Home

Online Library

- Recent Papers
- Volumes
- Library Search
- Title and Author Search

RSS Feeds

General Information

Submission

Review

Production

Subscription



Volumes Contents of Volume 7

Adv. Geosci., 7, 333-342, 2006
www.adv-geosci.net/7/333/2006/
© Author(s) 2006. This work is licensed
under a Creative Commons License.

Intercomparison of intense cyclogenesis events over the Mediterranean basin based on baroclinic and diabatic influences

LI. Fita, R. Romero, and C. Ramis
Grup de Meteorologia, Universitat de les Illes Balears, Mallorca, Spain

Abstract. A large number of high impact cyclones all over the Mediterranean basin have been reported on the data base of the MEDEX project (<http://medex.inm.uib.es>). A numerical study on the impacts and interactions of baroclinic and diabatic factors is carried out through a PV-based system of prognostic equations for 11 intense MEDEX cyclone episodes occurred in different zones of the basin (Western, Central and Eastern Mediterranean). The main aim of the study is to investigate the possible similarities and differences among the selected cases of the relative weight of the considered cyclogenetic factors on the cyclone evolutions as function of cyclone type and geographical area. A crucial role of the baroclinicity over the Mediterranean zone is obtained in most of the cases. A certain distinction can be also established in terms of the cyclogenesis areas (Africa, Mediterranean Sea, and Alpine region), and between west-central and eastern Mediterranean basins. It is generally observed that the considered baroclinic and diabatic factors cooperate most strongly for the cyclone deepening process when the disturbance reaches the Mediterranean sea.

Full Article in PDF (PDF, 966 KB)

Citation: Fita, LI., Romero, R., and Ramis, C.: Intercomparison of intense cyclogenesis events over the Mediterranean basin based on baroclinic and diabatic influences, Adv. Geosci., 7, 333-342, 2006. [Bibtex](#) [EndNote](#) [Reference Manager](#)



Search ADGEO

Library Search

Author Search

News

- New Tax Regulation for Service Charges

Recent Papers

01 | ADGEO, 27 Jan 2010: Recent variation of the Las Vacas Glacier Mt. Aconcagua region, Central Andes, Argentina, based on ASTER stereoscopic images

02 | ADGEO, 17 Dec 2009: First insights on Lake General Carrera/Buenos Aires/Chelénko water balance

03 | ADGEO, 17 Dec 2009: A Terrestrial Reference Frame (TRF), coordinates and velocities for South American stations: contributions to Central Andes geodynamics