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Intense small cyclonic vortices in the Mediterranean

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The Mediterranean area is known to be one of the most cyclogenetic regions in the world. Some of the cyclones formed in the Mediterranean are the so-called medicanes or tropical-like Mediterranean cyclones. The medicanes are intense small scale cyclonic vortices, characterised by symmetry, warm core and convective origin. But there are some other intense small cyclonic vortices in the Mediterranean that can also produce high impact weather (strong winds and/or heavy rain), but that are probably not classifiable as medicanes. On 29 October 2008, one of these vortices produced very strong winds, with damages, in the SW of the Island of Mallorca. Later, during 2010, up to 5 cases have been identified near the Balearics, some of them with strong winds, other with heavy rain, or both. Their small size makes difficult to obtain a good description of these disturbances. In the present contribution a general description of these disturbances is exposed. Besides, a semi-qualitative attempt of classification of these disturbances, based on the cyclone-phase space of Hart (2003), is explored.