MONITORING V-STORMS USING METEOSAT SECOND GENERATION SEVIRI IMAGE AND ITS APPLICATIONS: A CASE STUDY OVER WESTERN TURKEY

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This study presents METEOSAT Second Generation (MSG) SEVIRI Images and its applications how applicable monitoring V-Storms. And also analyses a severe thunderstorm occurred at 5th of November 2007 at Çameli town where is at the western part of Turkey. After occurrence of thunderstorms have been made phone calls with person concerned of municipality of Çameli and eye-witnesses. According to this a small-scale tornado had been occurred and three village belong Çameli had been affected.

Satellite based V pattern had %70 probability of producing severe weather (McCann, 1983). SEVIRI images both VIS and IR are well-defined in general the V-Storms even single cycle. In addition to this multi-spectral RGB applications are one of the powerful tools to recognize thunderstorms. Monitoring is also possible while making loop using 15 minutes cycle. In this study we have analyzed VIS, NIR, HRVIS and IR 10.8 and 12.0 microns channels images and following RGB applications; Day Microphysics, Air Masses and Storms RGBs which are recommended by MSG Interpretation Guide. We found out that SEVIRI RGB applications can be used while understanding of small-scale tornado to touch the surface with using geographical information.

Key words: MSG, SEVIRI, V-Storms, Tornado