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Resources and Dynamism of Moisture Transmission of Heavy Rainfalls in Gonu Storm

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Abstract

In the 6 to 8 June 2007 occurrence of the Gonu tropical storm caused heavy rainfall in the South East region was Iran and after heavy rainfall the severe floods occurred in South East Iran. In effects of Gonu super Cyclone in the 3-day period from 6 to 8 June 2007 of the South East region saw rain was showery precipitation. The total rainfalls in the study area to the number 503.5 mm were mature. Using various data related to atmospheric moisture in different levels, and low moisture supply source and quality and qualities in the event of rain caused by Gonu storm in 2007 was studied. studding of the atmospheric Moisture Flux Convergence (MFC) during Gonu storm in 6 to 8 June 2007, using the physical equations of related to the MFC in the atmosphere, map atmospheric MFC map's at levels 1000, 850, 700 and 500 hpa for 00z, 06z, 12z and 18z times have been illustrated and analyzed. The achieved results

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showed that the maximum convergence has taken place in 1000 and 850 hpa levels, and the other atmospheric levels had Lesser role in a rain storm days occurred in June 2007 Gonu. Also the results showed that moisture origin of precipitation in 6 June at 1000 and 850 hpa levels are the Indian Ocean, Gulf of Aden, and Arabian Sea and at other levels, are the Arabian Sea and Gulf of Oman. in June 8th the most effective moisture are related to the Gulf of Oman and Arabian Sea.

Attention to the time of year and considering the moisture transfer path of from the warm seas, the South East meteorological stations of Iran, and with attention to convectional rainfall maps we can be note to this important point that and flooding rainfall caused by Gonu storm have occurred due to pass and dominance of a warm and humid air mass by the convection and convergence mechanism.

KeyWords: Atmospheric moisture, Gonu tropical storm, Moisture Flux Convergence (MFC), Convectional precipitation, southeast region of Iran**.**

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