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Synoptic Analysis of Dynamic Widespread Rainfall 20 to 24 Farvardin 1386 (9 to 12 April 2007) South and South-West of Iran

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Introduction

Rainfall is one of the most important elements of climate impact, especially when it occurs in a large area encompassing a few days is surely much greater impact on the natural environment and human will Factors, including the rise of precipitation, humidity, condensation Vhsth be caused by the general circulation of air. Precipitation climate is a complex phenomenon resulting from the interaction the purpose of this study synoptic causes precipitation heavy sweeping Vnadr in central Iran, in the range of (20 to 24) Farvardin 1386 help index instability using atmospheric models of both surface and upper level atmosphere is.

Materials and Methods

In this regard, the statistics of rainfall, temperature and relative humidity daily 20 selected stations of the Meteorological Agency were collected and analyzed. How to Synoptic analysis of rainfall above system log Synoptic maps of the area pressure daily geopotential height field, Omega, volubility and wind flow in upper levels 500 and 850 are used. That the required data from the site NCAR / NCEP received and then mapping the application environment GRADS we paid. The analysis synoptic maps of rainfall for one day before the 19 Farvardin month of 1386 until the complete cessation of rains in the afternoon of April 24, 1386 has been made.

Results and discussion

Detailed maps of surface pressure and geopotential height and wind and humidity levels volubility and Omega 850 and 500Hp from 48 hours before to 24 hours after rainfall precipitation until complete cessation of rainfall and Computing Instability indicators have reached the conclusion that the first rains in the West and Southwest regions on 20 April Start and then the next day move air masses towards the East in central Iran and Zagros regions, predominantly in Iran Rainfall in the area has started to rain and a total of 22 days and Farvardin 23 peak rainfall has been the formation the trough level of 500 hPa in these days of deepening the trough and the western meridional wind flow and increased Vorticity and strengthen the system by logging in moist air masses from the southern parts of the country and increase the value of the index Variations on these days also induced precipitation in these areas. The high-pressure system located on the Black Sea Higher latitude cold air to the rear of the Sudanese system reactivates the system and the placement of the two systems Pressure on Iran, one in the north and one in the West and North West of Iran led to several days of low pressure systems in the region and strengthening and deepening trough western meridional wind flow and increase the level of 500 hPa vorticity distribution South and South-West Iran by increasing the amount of instability in the South and Southwest regions of Iran these days the system is also strengthened by the warm waters of southern Iran and causes rainfall and flood event in the Especially around 20 provinces of southern and southwestern been. There are also indicators of instability and Kzhfshar unstable atmosphere these days in southern and southwestern Iran confirmed.....

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Conclusion

The study found that the major reason for the widespread precipitation Vvrvd Sudanese system and forming a trough the middle level of the atmosphere inside the long wave trough over the East Vqrargyry westerly winds in the area and create instability in the region has been.

Keywords: Shower Surround, Synoptic Analysis- Dynamic, Unstable, Barokllinic Southern and Southwestern Iran.