

3. Conclusions:

The rates in the month of October tended towards an increase in Baghdad, Nasiriyah and Basra stations, as the highest rate was recorded at the Nasiriyah station, as it reached (0.13 +) millibars, and accompanied by a trend of air heights towards a decrease, as it was recorded for highs (-1.21) days, and it is also accompanied by a decrease in depressions. Atmospheric pressure, as it reached (-0.79) days, and we note in such a case a decrease in the atmospheric heights and low atmospheric levels. There are other factors that caused the rise in atmospheric pressure, which is the factor of temperature m and relative humidity%, while it was declining in Erbil, Mosul and Rutba stations, as it reached the lowest average pressure Atmospheric pressure in Rutba is (-0.47) millibars, accompanied by a decrease in the air heights, as it reached (-0.35) days, and an increase in the air lows, if it reached (0.32 +) days.

The rates of January tended towards an increase in the stations of Baghdad, Al-Rutba, Al-Nasiriyah and Basra, as the highest average air pressure was recorded in the Al-Nasiriyah station, as it reached (0.22 +) millibars. (-0.06) days, while it was towards the decrease in Erbil and Mosul stations, as the lowest average air pressure was recorded in Erbil, reaching (-0.18) millibars, and accompanied by a decrease in air heights, as it reached (-0.31) days, and an increase in depressions, if it reached (0.33). +) day

The trend in the month of April was towards a rise over the Baghdad, Al-Rutba, Nasiriyah and Basra stations, as the highest average air pressure was recorded at the Baghdad station, as it reached (0.29 +) millibars, and it is accompanied by a rise in the air heights, as it recorded (0.03 +) days, and it is accompanied by a decrease in the depressions. It reached (-0.009) days, while it had a declining trend over Erbil and Mosul stations, as the lowest average air pressure was recorded in Erbil, reaching (-0.07) millibars, and accompanied by a decrease in air heights, as it reached (-0.20) days, and an increase in air depressions if It reached (0.12+) days

The trend in the month of August was towards an increase in the stations of Erbil, Mosul, Baghdad, Nasiriyah and Basra, as the highest average air pressure was recorded in the Baghdad station, as it reached (0.30 +) millibars, while no recurrence rate of air elevations was recorded in the month of August, accompanied by a decrease in depressions. weather, as it reached (-0.66) days, while the trend was downward on the station and Al-Rutba, as it recorded (-0.001) millibars, while no recurrence rate of air elevations was recorded in the month of August, and a rise in air depressions if it reached (31+) days.

1. Introduction

The research aims to study climate change in Iraq based on the climatic elements atmospheric pressure of Erbil and Mosul stations represent the northern region, Baghdad and Rutba represent the central region of Nasiriyah and Basra represent the southern region of Iraq for the study period (2020-1954)) according to the six climatic cycles, whether the amount of change trend towards rising in the positive direction or falling in the negative direction, this period was divided into six climatic cycles, the first cycle of (1954-1965), the second cycle (1965-1976) and the third cycle (1976-1987), the fourth session of (1987-1998), the fifth session (1998-2009) and the sixth session (2009-2020) to find out the extent of the rise or decline in The research dealt with the study of four months (October, January, April, August), i.e. four seasons of the year, where the number of days of survival of extensions and centers of atmospheric highs and Atmospheric lows was studied and the relationship with atmospheric pressure was found.

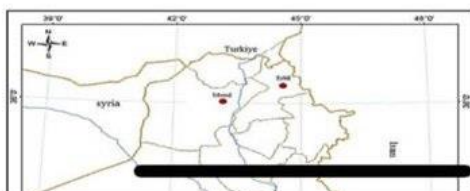
1.1.The search problem-:

- 1- does the increase in the extensions and centers of atmospheric heights affect the rise in atmospheric pressure rates
- 2-does the lack of extensions and centers of atmospheric heights affect the decrease in atmospheric pressure rates .
- 3-does the increased control of stretches and depressions air centers causes a decrease in atmospheric pressure rates.
- 4-does the lack of change in the control of extensions and centers of atmospheric depressions (negative) affect the high rates of atmospheric pressure.

1.2. Research objectives- :

1. there is a relationship between the increase in extensions and centers of atmospheric heights and the rise in atmospheric pressure rates.
2. there is a relationship between the lack of extensions and centers of atmospheric heights and low rates of atmospheric pressure .
- 3.there is a relationship between the increased control, extensions and centers of air depressions and a decrease in atmospheric pressure.
- 4.the lack of control of extensions and centers of atmospheric depressions affects the high rates of atmospheric pressure.

2. Boundaries of the research area: the boundaries of the search area are represented by the geographical boundaries of Iraq, which is located in the southwestern part of the continent of Asia northeast of the Arabian Peninsula between two circles of latitude (5 - 29 0 and 23 - 37 0) north and two lines of longitude (45 - 38 0 and 45 - 48 0) East. Six climate stations have adopted the map (Fig. 1).



The effect of changing the residence time of the pressure systems in changing the rates of atmospheric pressure over Iraq

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Abstract

The study concluded that the climate of Iraq took its share of climatic change, as all the elements of its climate changed, as the rates of minimum and maximum temperatures increased and the rates of relative humidity decreased in most of the study stations . It leads to a rise in atmospheric pressure, a change in the lack of control of extensions and centers of highlands will lead to a decrease in the values of atmospheric pressure. A change in the control of extensions and centers of depressions towards an increase causes a decrease in atmospheric pressure.

Keywords: climate change, pressure systems, atmospheric pressure, relative humidity

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