

551. 551 (544)

ABNORMALLY STRONG GUSTY WINDS
IN WEST RAJASTHAN ON
15 MARCH 1956

Connected with a western disturbance, a low pressure area appeared over Sind and neighbourhood on 14 March 1956. The low intensified considerably and developed into a deep depression with its central region over South Punjab(P) by the morning of the 15th. The pressure departure near the central region was of the order of 12 mb and the fall of pressure during the past 24 hrs was about 5 mb. The 0130 IST pilots of Bikaner and Jodhpur showed very much strengthening of the upper winds. At Bikaner, the wind speed was about 45 kts at 2000 to 3000 ft a.s.l. and about 60 kts at 5000 ft a.s.l. The wind speed at Jodhpur at 2000 to 3000 ft a.s.l. was 35 to 40 kts and 45 kts at 5000 ft a.s.l.

The above synoptic situation gave rise to strong dust-raising winds during the day on 15 March 1956 in west Rajasthan. Surface winds began to strengthen up from the morning and attained gale force as the day advanced. With the increase in wind strength, dust also began to be raised and visibility became very poor during the day.

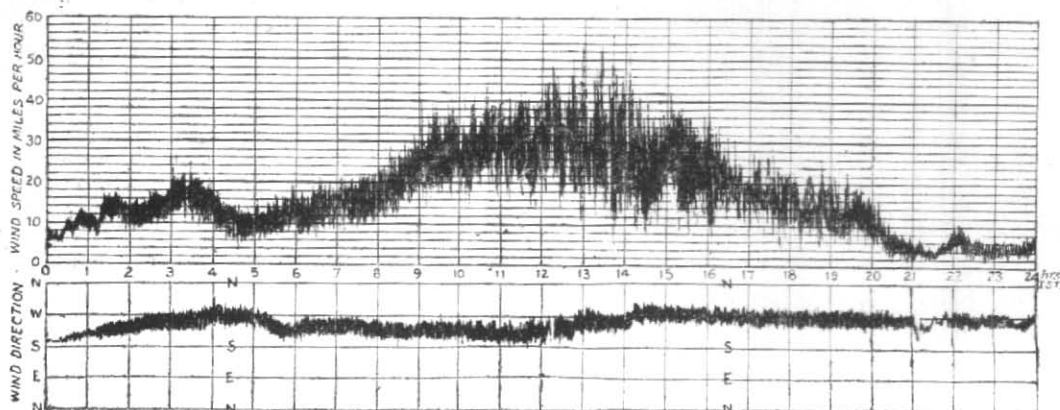


Fig. 1

The nature and strength of the winds on that day will be realised from the autographic records of the Dine's P.T. anemograph of Jodhpur. The anemograph record corresponding to 15 March 1956 is reproduced in Fig. 1. It will be seen that the winds were not of squally type which is associated with a dust storm or thunderstorm. The traces on the other autographic records also do not show the characteristics, associated with squally winds. The strong winds were also, of prolonged duration, unlike the squally winds which are generally of shorter duration. The winds were thus of the type of strong gusty winds, and the maximum wind velocity in gust rose to as high as 56 mph.

From the study of the winds at Allahabad (Sinha 1952) and Delhi (Sinha 1953), it has been observed that although the wind velocity in the case of the squally winds associated

with duststorm or thunderstorm rises to 50 mph or more on a number of occasions, the upper limit of the wind velocity in the case of gusty winds, unconnected with such weather, is confined to 40 to 45 mph. It has also been seen from the anemograms of Jodhpur that the maximum velocity in gust in this type of wind is confined within the limit of 45 mph. The high velocity reached on 15 March 1956 was thus a very unusual case of this type of wind.

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REFERENCES

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| Sinha, K. L. | 1952 | <i>Indian J. Met. Geophys.</i> , 3 , 2, pp. 101-114. |
| | 1953 | <i>Ibid.</i> , 4 , 2, pp. 145-163. |

Erratum for Vol. 7 No. 3

Page 321, column 2, line 18, for "F 2311/300" read "F 1512/300"