

REPLY

by S. Rangarajan

The main aim of my earlier paper (1) had been to demonstrate with the help of available radiosonde data that a concentrated warm area of the type visualised by Flohn (2), viz. a closed warm anticyclone covering only the entire Tibetan plateau, does not exist. What had actually been noticed in the mean maps is an elongated warm ridge covering almost the entire Asiatic landmass with its axis approximately along Lat. 28° N. In the above letter by Flohn (3) it has been stated that the warmest area is not over the Tibetan plateau itself, but over the extreme southern parts of Tibet, the Himalayas and the adjoining parts of North India. There is thus a fairly broad agreement between the position given earlier by me (1) and the one now given by Flohn (3). The point which I wish to stress is that neither the isotherms nor the contour heights in the height interval 6 to 12 km run round the Tibetan plateau as one would expect on the basis of the hypothesis of an elevated heat source centred over the plateau.

For a further proof of the facts already discussed in my earlier paper, I would make reference to the "Atlas of mean monthly stratosphere charts, 1955-1959" published by the Air Force Cambridge Research Laboratories, U.S.A. (4). The mean height distribution of the 100 mb surface reveals an elongated ridge running from the Middle East to the China Seas region. Similar features may be noted in the maps of mean isotherms of July for 500, 300 and 200 mb levels which have been discussed in a paper (5) entitled "Some features of the thermal structure of the atmosphere over India and neighbourhood" by R. Ananthkrishnan and S. Rangarajan, which was presented at the W.M.O. Symposium on Tropical Meteorology held at Rotorua, New Zealand, in November 1963 (in press).

As Prof. Flohn has rightly pointed out, while making studies of this nature, one is concerned with the data collected by radiosonde instruments of different types and operated by different countries and as such one has to take cognisance of possible systematic errors. It is, however, unlikely that the major conclusions stated in the previous paragraphs would be basically modified.

Meteorological Office,
Poona -5, INDIA.

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REFERENCES

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| 4) | Muench, H.S. and Barden, T.R. | 1962 | Atlas of Monthly Mean Stratosphere Charts, 1955-59. A.F.C.R.L., Bedford, Mass. U.S.A. |
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