

scintillations in post midnight hours on disturbed days. Regarding the day-time hours, the scintillations on 40 MHz seem to be consistently lower on D than on Q days. The mean day-time scintillations on 140 and 360 MHz were small and there were no significant differences between scintillations on Q and D days for the prenoon hours, while during the postnoon hours, scintillations were lower on D than on Q days.

During May to Aug 1976, no significant differences were noticed between Q and D days average curves for 40 MHz. On 140 MHz too no significant effect of disturbance could be noticed except for noon hours when scintillations were smaller on D than Q days. On 360 MHz, scintillations were smaller on D than Q days during the day times and no significant effect during the night was observed.

In conclusion, the scintillations of radio waves in the equatorial region are generally suppressed on disturbed days except in the American longitudes during the post midnight hours when scintillations seem to increase on disturbed periods. The explanation should be sought in the different storm time effects on the equatorial spread *F* in the American and Indian sectors. This in turn could be due to different coupling processes of the polar substorms with equatorial ionosphere in the two longitude zones.

ACKNOWLEDGEMENTS

The research at Indian Institute of Geomagnetism is supported by the Department of Science and Technology, Government of India.

13 May 1985

1. Wright, R. W., Koster, J. R. and Skinner, N. S., *J. Atmos. Terr. Phys.*, 1956, **8**, 240.
2. Rastogi, R. G., *Indian J. Radio. Space. Phys.*, 1982, **11**, 1.
3. Koster, J. R. and Wright, R. W., *J. Geophys. Res.*, 1960, **65**, 2303.
4. Koster, J. R., *Planet. Space Sci.*, 1972, **20**, 1999.
5. Mullen, J. P., *J. Atmos. Terr. Phys.*, 1973, **35**, 1187.
6. Aarons, J., Mullen, J. P., Koster, J. R., Dasilua, R. F., Medeiros, J. R., Medeiros, R. T., Bushby, A., Pantoja, S., Lanat, J. and Paulson, M. R., *J. Atmos. Terr. Phys.*, 1980, **42**, 8161.
7. Rastogi, R. G., Mullen, J. P. and Mackenzie, E., *J. Geophys. Res. (USA)*, 1981, **87**, 3661.
8. Rastogi, R. G., *Indian J. Radio. Space. Phys.*, 1982, **11**, 159.
9. Rastogi, R. G., Chandra, H. and Deshpande, M. R., *Indian J. Radio. Space. Phys.*, 1982, **11**, 240.

NEWS

NEW TEA LEAF COLD TREATMENT TECHNOLOGY

The new technology worked out by Soviet specialists helps reduce the cycle of tea leaf treatment from 10–12 hours to one–two hours. It is based on freezing the tea leaf. Water in the cells freezes and the intracellular ice crystals, thus formed, destroy them easily.

During rapid thawing in special conditions, all the fermentation processes are started simultaneously and become controllable. Due to little time, undesirable reactions ruining the tea do not take place and, as a result, a fine beverage of better quality than the ordinary one is obtained. In order to impart tea-leaves their traditional sickle-shape form, characteristic of the good varieties, the defrosted tea is subjected to

brief rolling. All the processes are conducted for a strictly fixed time and under special temperature.

The use of new technology fully rules out the stage of sun-curing (drying of green leaves to remove surplus water). The newly picked leaf is put straight into the refrigerator.

Experts have calculated that the introduction of new technology will produce a major economic effect. Besides, this method will, possibly, solve the problems of seasonal work for tea-packing plants—frozen green leaves can be preserved without fearing to ruin them and processed evenly. (*Soviet Features*, Vol. XXIV, No. 136, September 10, 1985).
