

NCSTC Programme on Total Solar Eclipse 1995

V B Kamble

National Council for Science & Technology Communication, Department of Science & Technology, Technology Bhavan, New Delhi 110 016

NCSTC and Vigyan Prasar jointly undertook a countrywide programme on S & T popularisation built around the Total Solar Eclipse (TSE) of October 24, 1995. The main objective of the programme was to popularise astronomy in particular and S & T in general addressing at the same time superstitions and unscientific beliefs associated with this rare natural phenomenon.

At public level, the activities included lectures/demonstrations, exhibitions and preparation/dissemination of posters and booklets on various relevant topics. A number of articles in newspapers and booklets on specific topics were published. Also several radio/television programmes were produced and broadcast/telecast.

A spate of activities involved students/teachers/general public and active association/collaboration of Government/ non Government/voluntary organisations. The activities envisaged were at three levels, viz., general public, school students and specialised groups. NCSTC and VP organised six regional telescope making workshops-cum training programmes. In each workshop, 20-25 telescopes were fabricated by as many teams representing neighbouring states, a team comprising of one teacher and two students of the same school. The telescopes fabricated were utilised during the total solar eclipse of October 24, 1995 and to initiate astronomy activities in the respective schools. Also organised were lectures/demonstrations, posters, activity kits, booklets, wall charts, etc. Quiz/essay/elocution competitions at district and State levels related to astronomy were organised and the first three winners won a trip to the belt of totality at Alwar, Rajasthan as a prize.

NCSTC organised a training programme for master resource persons at national level at Shimla in July 1995, drawn from various states. The master resource persons thus trained, organised state level resource persons training programme in their respective states which involved eclipse related activity for children with emphasis on safe viewing of the eclipse and other relevant activities. NCSTC supported training programmes for resource persons and children's competitions in 19 states.

On October 24, 1995 NCSTC organised a conducted tour of state level winners for about 70 children (3 children from each state alongwith a resource person) at Alwar, Rajasthan to watch the total solar eclipse

History was made when Indian Air Force planes chased the umbral shadow on October 24, 1995 carrying on board several scientific experiments. This was a result of the initiative and coordination of the effort by Vigyan Prasar and NCSTC. The Hasselblad cameras on board MIG 25 and Canberra took pictures of the solar corona upto a distance of 13 solar radii (an experiment by Udaipur Solar Observatory, Udaipur). The umbral shadow from another MIG 25 however, failed to show up. The experiments by Indian Institute of Astrophysics, Bangalore, to photograph solar corona in various wavelengths on board AN 32 were conducted successfully. The Doordarshan and Vigyan Prasar teams with video cameras were successful in capturing a few interesting moments.

The attempt to photograph the solar corona in polarised white light from Nim ka Thana utilising the newly acquired Questar 3.5" of Vigyan Prasar was highly successful. The photographs are being analysed at the Physical Research Laboratory, Ahmedabad at present.

The results of the studies on radio propagation conducted by Vigyan Prasar in collaboration with Vikram Sarabhai Space Centre ISRO, Thiruvananthapuram and Defence Electronics Applications Laboratory, Dehradun are expected in near future.

Vigyan Prasar produced five video programmes, viz., India Se Khagras Dekho, Din Mein Tare, Poorna Suryagrahan Kaise Dekhen, Eclipse Myths, a simulation of Total Solar Eclipse along with six spots of one minute each. These programmes were shown on Doordarshan and Zee TV. Several radio programmes were also produced based on the resource material brought out by NCSTC/Vigyan Prasar. The literature brought out included six resource articles, five books at popular level and a wall chart. It may be stated that the aforementioned software (produced in Hindi and/or English) and the kit were widely utilised in various states. In some states, the resource material was translated in the local languages.