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Bangalore's Big Leap into Universe

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Bangalore, Sept. 8—A 2.34 metre reflector telescope of the Indian Institute of Astrophysics here will become operational in a few months making India the leading Asian country in optical astronomy and bringing it on par with the developed countries in the field.

The mirrors of the 1 metre telescope of the Indian Institute of Astrophysics being aluminised. More pictures on page 6.

The new telescope, being fabricated indigenously, will be put up at the Institute's observatory at Kavalur in the Javali Hills near Puniyambudi in Tamil Nadu, M. Ramani, Administrative Officer of the Institute, told 'The Times of Deccan'. The Kavalur observatory presently houses the 1 metre telescope of the Institute.

The new telescope will not only be the largest in Asia but also one of the most sophisticated in the world. Though in size it does not compare well with the world's largest — the Russian 6-metre telescope at Zelentchuki or the American 5 metre telescope at Mt. Paloma, California — it has the advantage which neither has—a super-mini class on-line computer which is more suitable for on-line real-time operation than the far more expensive main-frame computers.

With it the astronomer will be able to see objects about five times fainter than those visible to the one-metre telescope in operation at the institute at present. The one-metre telescope itself can see stars down to the magnitude of plus 18. It can see stars that are about 63,000 times fainter than the faintest seen by the naked eye.

The new telescope, controlled by an on-line computer will also process data in about half an hour where at present the same process takes from one to six months. "Now with quicker results we can get credit for what we discover, whereas as things are at present the developed countries can beat us to such a claim with their sophisticated technology," Pati said.

Future instruments at the Kavalur observatory, of the Astrophysics Institute which require data processing will be linked to the computer. This will quicken the pace of all research conducted at the observatory. "The Kavalur observatory is planned to be one of the most efficient observatories in the world," Pati said.

The 250-tonne telescope is a Rs. 5 crore project and all its components are being manufactured indigenously by the Walchand Nagar Industries Ltd., Pune. It will be operationable by mid-1983.

The 2.34 metre telescope is the conception of the late Dr M. K. V. Bappu, former Director of the Indian Institute of Astrophysics. Dr Bappu who was the co-discoverer of the comet later named —Bappu-Bok-Newkirk and the co-ordinator of all the scientific studies during the 1980 total solar eclipse seen in India felt Indian astronomers needed a bigger telescope to compete with their counterparts elsewhere at the very frontiers of astronomical research. Earlier, if an Indian discovered a comet or any other astronomical phenomenon, it took him six months to formulate all the data and claim the credit. Western astronomers making the discovery later could take the credit because of their computerised observatories.

Dr Bappu designed the telescope and directed even minute details of its fabrication, till his death on Aug. 19 Prof. J. C. Bhattacharya, the present acting director of the Institute was also closely associated with it as deputy director and is keen on seeing that the telescope is commissioned as desired by Dr Bappu.

(Reaching for the sky—page 6)

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Kavalur - Reflector telescope