



Electronics Corporation of India Limited
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PRESS RELEASE

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Dr. R K Sinha, Chairman AEC & Secretary DAE, flags off
ECIL's MACE Telescope to Hanle, Leh

Hyderabad; June 28th 2014 : Dr. R K Sinha, Chairman Atomic Energy Commission & Secretary Dept. of Atomic Energy, today flagged off a consignment of MACE (Major Atmospheric Cherenkov Experiment) Telescope bound for Hanle, Leh where it has to perform under extreme weather conditions.

The 21m diameter MACE Telescope being setup at Hanle (32.80 N, 78.90 E, 4200 m above MSL) in the Ladakh region of North India, will be the second largest gamma ray telescope in the world. When fully operational by early 2016 it will enhance our understanding in the fields of Astrophysics, Fundamental Physics, Particle acceleration mechanisms for gamma-ray generation and Spectral cut off of Pulsars.

The prime responsibility of Detailed Design, Manufacturing, Installation and Commissioning of the telescope was entrusted by Bhabha Atomic Research Centre (BARC) to ECIL who has done pioneering work in the field of Large Structures like the 32m IDSAN Antenna for country's 1st Lunar Mission Chandrayaan-1. More than 25 engineers are involved from ECIL in realizing the telescope over a period of four years. Astrophysical Sciences Division, Centre for Design and Manufacture, Electronics Division, Reactor Control Division and Reactor Safety Division of BARC have made major contributions to the development of various subsystems of the MACE telescope. Indian Institute of Astrophysics, Bangalore and Tata Institute of Fundamental Research, Mumbai are also associated with the project.

Speaking on the occasion, Dr. R K Sinha congratulated the scientists from BARC (Bhabha Atomic Research Centre) and the engineers from ECIL on the stupendous feat of indigenously designing and manufacturing this giant telescope to stringent tolerances. It is the best tool for high end astrophysical research and being an indigenous effort it will make India proud, he said.

He also informed that this multi-dimensional structure called for assembly of skills in all engineering disciplines such as Mechanical, Electrical, Civil, Electronics, Software and Hardware as well as coming together of great minds and talent that India has produced. The mirrors are made of aluminum honeycomb panels, diamond turned to 50 nanometer surface accuracy. It will help provide answers to questions on the mysteries of the universe. Once the MACE system is operational, INDIA will find its place in the elite scientific community working in field of Gamma Ray Study.

The total mechanical structure of the telescope will be shifted to Hanle by August 2014 and assembly work will start there by September 2014. The circular track, wheel assemblies and the

major portion of the supporting structure will be assembled at Hanle by November 2014. The remaining assembly will be completed during the summer of 2015. The Imaging Camera will be integrated to the telescope in October 2015 and the telescope will see first light in the form of gamma-ray emissions from the Crab Nebula, which is a standard calibration source in the Northern Hemisphere, in December 2015.

About ECIL: *Electronics Corporation of India Limited (ECIL) was established in 1967 as a Public Sector Enterprise under the Department of Atomic Energy (DAE) to support the instrumentation and control requirements of India's Nuclear Power Programmes. With self-reliance as its guiding philosophy, ECIL pioneered a number of products and technologies. The early forays in to consumer electronics has made ECIL a house-hold name and resulted in introduction of many "firsts" in the country such as Digital Computers, TVs, 32 metre Deep Space Network Antenna for Chandrayaan-1, etc. ECIL is widely recognised as a torch-bearer of the Electronics and IT revolution in the country.*

About Aerospace Systems Group: *ECIL's Aerospace Systems Group has well established core capabilities of design, manufacture of large and medium sized earth station antennas both for communication and remote sensing applications, high speed satellite communication links, UAV trackers, Stabilization platforms for Airborne & Ship borne applications, precision electro mechanical components like synchros, gyros, solid state cockpit voice recorders, Gyro Stabilised horizontal roll bar system for night landing of helicopters on ships, Actuators for various UAVs like RUSTOM, Nirbhay, Lakshya etc.*

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