Indian Institute of Tropical Meteorology (IITM)

PRESS RELEASE (28.4.2026)

Inauguration of first phase of instruments for the Coastal Atmospheric Research Testbed (C-ART)

Key Highlights

- **Strategic Launch:** Virtual inauguration of the first phase of state-of-the-art atmospheric instruments for the Coastal Atmospheric Research Testbed (C-ART) at Andhra University.
- **Inaugurated** by Hon'ble Vice President of India, in presence of Hon'ble Governor of Andhra Pradesh, Hon'ble Governor of Orissa, Hon'ble Chief Minister of Andhra Pradesh and other dignitaries.
- **Institutional Collaboration:** Exchange of a Memorandum of Understanding (MoU) between Indian Institute of Tropical Meteorology (IITM) and Andhra University (AU) to formally establish and implement Research testbed on AU campus.
- **Mission Mausam Initiative:** The testbed worth 180 Crores is being developed under Mission Mausam, a flagship programme of the Ministry of Earth Sciences.

- **Flagship Coastal Facility:** Establishment of the Coastal Atmospheric Research Testbed (C-ART) at Andhra University as a dedicated, collaborative platform for monitoring, understanding, and predicting severe coastal weather systems.
- **C-ART** is envisioned as a collaborative research hub, bringing together observational and modelling communities to develop a unified and comprehensive understanding of coastal weather systems.
- **Advanced Observational Network:** Deployment of cutting-edge instruments including ceilometers, aerosol analyzers, disdrometers, greenhouse gas analyzers, and cloud microphysics systems.
- **Regional Impact:** Strengthens early warning, monitoring, and research of severe weather events such as cyclones, thunderstorms, and heatwaves along India's east coast.

Andhra University, Visakhapatnam; 27.4.2026: In a major step toward strengthening India's coastal weather monitoring and research capabilities, **the first phase of advanced instrumentation for the Coastal Atmospheric Research Testbed (C-ART) was inaugurated at Andhra University, Visakhapatnam on 27 April 2026**.

The inauguration was led by Hon'ble Vice President of India, C. P. Radhakrishnan, in the presence of Hon'ble Governor of Andhra Pradesh, Syed Abdul Nazeer; Hon'ble Governor of Odisha, Hari Babu Kambhampati; Hon'ble Chief Minister of Andhra Pradesh, N. Chandrababu Naidu; Vice Chancellor, AU, Prof. G. P. Raja Shekhar, and Dr. A. Suryachandra Rao, Director, Indian Institute of Tropical Meteorology, along with other dignitaries. The event formed part of the centenary celebrations of Andhra University.

Strengthening Coastal Weather Resilience: Visakhapatnam's strategic location along the Bay of Bengal makes it a critical economic and maritime hub for India. However, the region is highly vulnerable to extreme weather events, including cyclones, intense thunderstorms, and heatwaves, which pose risks to lives, infrastructure, and ecosystems.

Considering this importance, the Indian Institute of Tropical Meteorology (IITM) is establishing a Coastal Atmospheric Research Testbed (C-ART) as a dedicated research and observational facility to improve understanding and prediction of coastal atmospheric

processes at Andhra University as part of Mission Mausam, a flagship program of the Ministry of Earth Sciences (MoES), Government of India.

State-of-the-Art Scientific Infrastructure: The first phase of instrumentation of C-ART features a comprehensive suite of advanced atmospheric instruments deployed at the Department of Meteorology and Oceanography, Andhra University. These include state-of-the-art instrumentation to monitor the atmosphere, such as Depolarization ceilometers, Aerosol Mass Spectrometer (AMS), Cloud Condensation Nuclei (CCN) counter, Single-particle soot Photometer (SP2XR), Carbonaceous aerosols speciation system (CASS), Cavity Ring-Down Spectroscopy (CRDS) Greenhouse Gas (GHG) analyser, 2D Video Disdrometer, Impact disdrometer, and Nano Condensation Nucleus Counter (nCNC). Additionally, instruments are also installed at other locations, including the India Meteorological Department (IMD) and Bullayya College of Engineering in Visakhapatnam.

These instruments will enable high-resolution monitoring of aerosols, clouds, precipitation, and greenhouse gases—critical for improving weather forecasts and climate models.

Collaborative Research Platform: On 27 April 2026, IITM and AU exchanged a Memorandum of Understanding (MoU) for establishment of "Coastal Atmospheric Research Testbed" at AU campus. This MoU marks a significant milestone in fostering long-term scientific collaboration. Andhra University has allocated land for setting up an open-field meteorological observatory, enabling continuous and integrated observations and research collaborations.

Way Forward: The Coastal Atmospheric Research Testbed will serve as a national facility for advancing research, improving early warning systems, and enhancing preparedness for extreme weather events along India's coastline.
By integrating cutting-edge technology with collaborative science, C-ART is set to play a pivotal role in safeguarding coastal regions and supporting sustainable development.

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Glimpses from the Event:

(1) Dr. A. Suryachandra Rao, Director IITM, and Prof. G. P. Raja Shekhar, VC, AU exchanged an MoU between IITM and AU for establishing "Coastal Atmospheric Research Testbed", in the presence Hon'ble Vice President of India Shri C. P. Radhakrishnan, Hon'ble Governor of Andhra Pradesh Shri. Syed Abdul Nazeer, Hon'ble Governor of Orissa Shri. Hari Babu Kambhampati, Chief Minister of Andhra Pradesh Shri. Nara Chandrababu Naidu, and other dignitaries.

2) Virtual inauguration of the "first phase of instrumentation for the Coastal Atmospheric Research Testbed (C-ART) set up by IITM at Andhra University, Visakhapatnam by Hon'ble Vice President of India Shri C. P. Radhakrishnan.

3) Glimpses of instruments deployed by IITM at Department of Meteorology and Oceanography, AU.