

Prayagraj OCC Equipped with Advanced Tech to Enhance EDFC Efficiency

Railway Minister Ashwini Vaishnaw visits the facility on December 8 with key officials

by Bhaswati Guha Majumder — December 11, 2024 in Governance, Important, Technology Reading Time: 4 mins read



Minister for Railways Ashwini Vaishnaw visits the Operation Control Centre (OCC) at Prayagraj (EDFC).



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Prayagraj: Union Minister for Railways, Information and Broadcasting, and Electronics & Information Technology, Ashwini Vaishnaw visited the Operation Control Centre (OCC) in Prayagraj on December 8. The OCC serves as the nerve centre for the Eastern Dedicated Freight Corridor (EDFC), a pivotal project aimed at revolutionizing India's freight transportation sector. The visit marks a significant milestone as the Dedicated Freight Corridor transitions from construction to full-scale operations.

During his visit, [Vaishnaw](#) engaged with Board Controllers to discuss enhancements such as Centralized Traffic Control (CTC) and [KAVACH](#) systems. He lauded the integration of these technologies, which promise to elevate railway safety and operational efficiency. The indigenously developed KAVACH system, an automatic train protection mechanism, is designed to prevent collisions by automatically applying brakes when necessary. Combined with the CTC system, these advancements are set to optimize train movements and significantly reduce accident risks.

The Union Minister was accompanied by several key officials, including Satish Kumar, Chairman and CEO of the Railway Board, and Praveen Kumar, Managing Director of DFCCIL. Other senior officials present included Pankaj Saxena, Director of PP & Infra at DFCCIL, Shobhit Bhatnagar, Director of Operations & Business Development at DFCCIL, and divisional railway managers from Lucknow and Prayagraj divisions. Their collective presence underscored the importance of this site in India's logistics and transportation landscape.



OCC Prayagraj: Commanding India's Freight Operations

Spanning 13,030 square meters on a 4.2-acre site, the OCC in Prayagraj is one of the world's most advanced control centres for freight train operations. Its standout feature is a theatre-sized operations room measuring 1,560 square meters, equipped with a massive 90-square-meter video wall. Designed with ergonomic and acoustic excellence, the facility supports the seamless coordination of the EDFC's 1,337-km route length.

The centre's cutting-edge technology includes India's first Integrated Train Management System (TMS) and Supervisory Control and Data Acquisition (SCADA) system, based on Alstom's ICONIS platform. These systems enable traction controllers to remotely monitor and operate power supply equipment, as well as auxiliary systems such as HVAC and fire alarms. These innovations highlight India's "Make-in-India" initiative by showcasing domestically developed technological excellence.

Accelerating Freight Efficiency

The EDFC has witnessed remarkable growth in freight traffic, with an average of over 191 trains operating daily. Freight volumes surged from 26,344 million gross tonne kilometres (GTKMs) in FY 2022-23 to 80,390 million GTKMs in FY 2023-24. Faster train speeds and the introduction of long-haul trains have further enhanced efficiency. By FY 2024-25, DFCCIL recorded an 80% increase in total freight transported, reaching 122,500 million GTKMs.

Currently, the Dedicated Freight Corridors handle over 13% of India's total rail freight despite covering just 4% of the network. This efficiency underscores the transformative potential of the DFC in bolstering trade and economic growth. Key commodities such as coal, food grains, fertilizers, and engineering products are among the primary beneficiaries.

Sustainability and Accessibility at Its Core

In alignment with the Accessible India Campaign (Sugamya Bharat Abhiyan), the OCC ensures universal accessibility for Persons with Disabilities. The facility's sustainability credentials include GRIHA-4 Green Building certification, solar power systems, and rainwater harvesting, reinforcing India's commitment to eco-friendly infrastructure.

Recognizing Excellence

During his inspection, Vaishnaw reviewed the Hot Axle Box Detector system and commended its efficiency. He also appreciated the efforts of the officials at OCC Prayagraj, acknowledging their dedication to advancing India's freight transportation capabilities.

The OCC Prayagraj is not merely a technological marvel but a symbol of India's ambition to redefine its logistics landscape. As the EDFC transitions to full-scale operations, the centre's role in managing and optimizing freight movement will be pivotal in shaping a sustainable, efficient, and inclusive future for India's railways.