New Indian Mountain Fire Control Radar Unveiled

By Atul Chandra

India's state-owned defense electronics firm **Bharat Electronics Limited (BEL)** has unveiled a new vehicle-mounted radar designed to support air defense operations in mountainous terrain. The production-ready Mountain Fire Control Radar (MFCR) was revealed in February during a visit by Defence Minister Rajnath Singh to BEL's Bengaluru Complex.

The MFCR integrates BEL's Air Defence Fire Control Radar (LT) which consists of an X-band active array antenna-based 3D-search radar and a Ka-band tracking radar along with electro-optical sensors mounted on a Toyota Hilux 4×4 platform.

The mobile fire-control solution will support forward-deployed Air Defence (AD) units operating in difficult terrain. The system will be used for surveillance and tracking of fighter aircraft, helicopters and Unmanned Aerial Vehicles (UAVs) during day or night under all weather conditions.

BEL quotes a detection range of 25 km for fighter-class aircraft and a tracking range of 12 km, while drone detection and tracking can be performed at distances up to 8 km.

Each MFCR can simultaneously control two upgraded L/70 40 mm guns used by Army air defense units. The target parameters generated by the radar can also be transmitted to Very Short Range Air Defense (VSHORAD) systems with the Army.

BEL had previously upgraded the Indian Army's legacy L/70 guns with a fire control system featuring an optronic sight, consisting of eye-safe laser range finder (LRF), daylight TV camera (DLTV) and a thermal imager. A battery-operated all-electric drive replaces the previous hydraulic system.

Approximately 200 upgraded L/70 guns are believed to be in service.

BEL is also progressing deliveries of the “Atulya” Air Defense Fire Control Radar (ADFCR) ordered by the Army under a June 2025 contract worth approximately US$186 million (Rupees 16 billion).

The Atulya radar was developed by the Defence Research & Development Organisation (DRDO) with BEL selected as the production partner. It will form part of the Army’s Ground Based Air Defence (GBAD) network. The system will support surveillance, target acquisition, tracking and fire control of air defense guns to deliver effective point defense against a range of aerial threats at short and very short ranges and in contested electromagnetic environments.

The development trials of the Atulya radar included summer trials and rail transportability trials which were completed in 2021, while electronic warfare trials – conducted as part of the Army’s Preliminary Staff Qualitative Requirements (PSQR) validation process – concluded in January 2022.