Army Orders 1 Million Pieces of Grenade Developed by DRDO's Chandigarh Lab

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About a decade after being designed, the Army has approved bulk production of lightweight modular hand grenades developed by the Defence Research and Development Organisation (DRDO) for induction. An order has been placed with the Ordnance Factory Board for supplying one million hand grenades to the Army.

Known as Shivalik, these would replace the existing M-36 HE grenades, the original version of which dates back to the Second World War. Developed by DRDO's Chandigarh-based Terminal Ballistics Research Laboratory, the new

grenade overcomes the safety hazards posed by the existing grenades. The M-36, according to the DRDO, has a severe reliability problem due to its flawed fusing system and uneven fragmenting pattern, making it unsafe even for the thrower. Shivalik uses a modular plastic body and pre-formed cylindrical mild steel fragments for uniform distribution of fragments to overcome these deficiencies. Additional features have been incorporated into the fuse's arming mechanism to ensure greater safety during storage, transportation and airdropping. Fragmentation distribution can also be controlled for use in offensive or defensive roles by attachment of a fragmentation sleeve. The use of plastic has also resulted in reduction of the grenade's overall weight. Unlike earlier grenades, it can be para-dropped if urgent re-supplies are needed and can function in temperatures ranging from minus 20 to 55°C.

Besides the Shivalik, the Army has also approved bulk production of the add-on 40 mm under-barrel grenade launcher (UBGL) that is attached to rifles for increasing their firepower. The UBGL, which can be mounted on the INSAS as well as AK-47 rifles, was developed keeping in view the global trend in technology for small arms from the concept of point-target capability to area-target capability. Capable of night-firing, it fills the gap between the maximum range achieved by a hand grenade and the minimum range of a mortar while giving better accuracy than both. Another unique weapon under development by the DRDO is the "chill grenade", which uses extract of Bhut Jolokia, certified as the world's hottest chilli and is native to the northeast. Part of a range of equipment being developed by the DRDO for counter-insurgency and internal security operations, the chilli-grenade is non-toxic and non-lethal and functions like tear-gas used by the security forces. Its pungent fumes can smoke out terrorists or hostile elements from hideouts.

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