



Extreme Cold Weather Clothing System

Why in News

Recently, [DRDO \(Defence Research and Development Organisation\)](#) has handed over a Technology for indigenous **Extreme Cold Weather Clothing System (ECWCS)** to five Indian companies.

- Earlier, DRDO successfully conducted maiden flight test of a new indigenously developed surface-to-surface missile '[Pralay](#)'.

Key Points

▪ About:

- It is an **ergonomically designed modular technical clothing** with improved thermal insulation and physiological comfort based on the insulation required at **various ambient climatic conditions in Himalayan regions** during different levels of physical activity.
- The ECWCS embodies physiological concepts related to **the reduction in respiratory heat and water loss, unhindered range of motions and rapid absorption of sweat** while providing waterproof, windproof features with adequate breathability and enhanced insulation as well as strength features required for high altitude operations.
- It is designed **to suitably provide thermal insulation over a temperature range of +15 to -50 degrees Celsius** with different combinations of layers and intensity of physical work.

▪ Significance:

- It is **required by the Indian Army for its sustained operations in glacier and Himalayan peaks**. The Army, till recently has been importing extreme cold weather clothing and several Special Clothing and Mountaineering Equipment (SCME) items for the troops deployed in high altitude regions.
- It provides **an advantage of fewer combinations to meet the required insulation** for the prevailing climatic conditions, thereby providing a viable import alternative for the Indian Army.

Defence Research and Development Organisation

- DRDO was established in 1958 after combining Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO).
- It works under the **administrative control of the Ministry of Defence** with the aim to establish **a world class science and technology base for India and provides our Defence Services decisive edge** by equipping them with internationally competitive systems and solutions.

[Source: HT](#)

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