

Product Manager
Soldier Clothing and
Individual Equipment

Generation III Extended Cold Weather Clothing System (ECWCS)



Specifications

Component materials: Base layer garments are constructed of silkweight, moisture-wicking knitted polyester and polyester grid fleece. The fleece jacket uses thermal pro insulation that mimics animal fur. The wind jacket is made of a lightweight, windproof, and water-repellent material. The soft shell jacket and trousers are made of a highly water-resistant, windproof material that increases moisture vapor permeability (breathability). The extreme cold/wet weather jacket and trousers are made of a waterproof material for use in prolonged wet and/or hard rain conditions. The extreme cold weather parka and trousers are constructed with loft insulation that provides superior warmth with high compactability, low weight, and low volume.

Color: Desert sand (base layers); foliage green (fleece layer); universal camouflage pattern (outer layers); urban gray (extreme cold weather)

Weight: 12.85 pounds (all layers combined)

Size: Tops and bottoms: 15 sizes from X-small-short to XX-large-X-long

Status: Initial fielding began in August 2007 to elements of the 73rd Calvary Regiment in Afghanistan
Fielding is through the Rapid Fielding Initiative

The Generation III Extended Cold Weather Clothing System (GEN III ECWCS) was designed to be functional in multiple cold weather climates and operations. Its multilayered insulating system allows the Soldier to adapt to varying mission requirements and environmental conditions. New materials offer a greater range of breathability and environmental protection, providing greater versatility in meeting Soldiers' needs. The GEN III ECWCS design is more compatible with body armor than previous cold weather clothing. The 12 components of the GEN III ECWCS include a lightweight undershirt and drawers, midweight shirt and drawers, fleece cold weather jacket, wind cold weather jacket, soft shell jacket and trousers, extreme cold/wet weather jacket and trousers, and extreme cold weather parka and trousers.

During Operation Mountain Lion, I found myself praying for bad weather, the first time in my military career I was actually begging for a cold front to come through. I knew my Soldiers could handle it and the enemy couldn't. ECWCS allowed my men to outlast the enemy on their own terrain. When the enemy was forced out of the mountains due to the bitter cold to take shelter, that's when we got them.

– LTC Christopher Cavoli, Commander, 1-32 Infantry Battalion, 10th Mountain Division



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Product Manager Soldier Clothing and Individual Equipment

*Lightweight
Cold Weather
Undershirt/
Drawers*

*Midweight Cold
Weather Shirt/
Drawers*

*Fleece Cold
Weather Jacket*

*Wind Cold
Weather Jacket*

*Soft Shell Cold
Weather Jacket
and Trousers*

*Extreme Cold/
Wet Weather
Jacket and Trousers*

*Extreme Cold
Weather Parka/
Trousers*



GEN III ECWCS consists of 12 components:

Lightweight Cold Weather Undershirt/Drawers: These consist of long-sleeve top and full-length bottom garments constructed of “silk weight” moisture-wicking polyester. The fabric aids in the movement of moisture from the skin to the outer layers while the Soldier is moving or static.

Midweight Cold Weather Shirt/Drawers: These consist of long-sleeve top and full-length bottom garments constructed of polyester “grid” fleece. They provide light insulation for use in mild climates and also act as a layer for colder climates. They provide an increased surface area for transporting moisture away from the Soldier during movement.

Fleece Cold Weather Jacket: This jacket acts as the primary insulating layer for use in moderate to cold climates. Insulation mimicking animal fur provides an increase in the warmth-to-weight ratio along with a reduction in volume when packed.

Wind Cold Weather Jacket: This jacket acts as a low-volume shell layer, optimizing the performance of moisture-wicking and insulation layers when combined with Interceptor Body Armor and/or the Army Combat Uniform (ACU) in mild to transitional environments such as desert day to desert evening. It is made of a lightweight, wind-resistant, and water-repellent material. Design features include full-zip front, draw cord at the bottom, shoulder pockets, and a no-hood simple collar.

Soft Shell Cold Weather Jacket and Trousers: These replace the ACU in extended cold weather environments. The material is highly water-resistant, windproof and increases moisture vapor permeability over current hardshell garments. The garments reduce weight, bulk, and noise signature during movement. Increased breathability improves performance of insulation layers by decreasing saturation from moisture vapor accumulation.

Extreme Cold/Wet Weather Jacket and Trousers: This is the waterproof layer of the system, for use in prolonged and/or hard rain and wet conditions.

Extreme Cold Weather Parka/Trousers: These provide superior warmth, high compactability, low weight and volume, and are sized to fit over armor and basic load carriage equipment (not zipped up) during movement or static activities requiring maximum insulation. They are highly water-resistant and windproof.