



PROGRAM
EXECUTIVE
OFFICE
SOLDIER

THE GENERATION III EXTENDED COLD WEATHER CLOTHING SYSTEM (GEN III ECWCS)

Project Manager Soldier Protection and Individual Equipment

Product Manager Soldier Clothing and Individual Equipment

<http://www.peosoldier.army.mil>

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Specifications

- **Weight:** 12.85 pounds (all layers combined)
- **Size:** Tops and bottoms: 15 sizes from X-small-short to XX-large-X-long
- **Color:** Desert Sand (base layers); Foliage Green 504 (fleece layer); Universal Camouflage Pattern. For Operation Enduring Freedom (OEF), selected components of ECWCS are being fielded in the OEF Camouflage Pattern and Tan 499, starting in August 2010

Program Status

Fielding of GEN III ECWCS continues. Research is underway to identify product improvements that will meet future requirements.



The Generation III Extended Cold Weather Clothing System (ECWCS) is a system of uniform components that allows Soldiers to adapt more effectively to operational and environmental conditions.

GEN III ECWCS utilizes an innovative design that reduces bulk, taking up 33 percent less space, and weighing 25 percent less than its predecessor systems. Each piece of GEN III ECWCS functions either alone or in concert with other components as a system, thus providing more options for the Soldier and enabling seamless integration with load-bearing equipment and body armor configurations. The Gen III ECWCS design allows moisture to escape and at the same time has water-resistant properties.

GEN III ECWCS is a 12-piece kit that enables Soldiers to utilize seven different layers, depending on the mission and environment. The system functions through insulation, which resists the transmission of heat, traps air, and wicks moisture away from the body; layering, which increases air space and allows easy adjustment to a Soldier's activity level; and ventilation, which allows moisture to escape. By mixing and matching Gen III ECWCS components, Soldiers can protect themselves from weather conditions ranging from 40 degrees Fahrenheit to as frigid as minus 60 degrees Fahrenheit.

"Well, you know Soldiers get cold. Now with this system here, they can work through it. And as they sweat, the ECWCS will actually wick away the sweat, which therefore reduces the coldness on the body. That makes a huge difference. So you can work longer and be more efficient."

– SSG Arthur D. Stewart

THE GENERATION III EXTENDED COLD WEATHER CLOTHING SYSTEM (GEN III ECWCS)



GEN III ECWCS consists of 12 components:

<p>1 Lightweight Cold Weather Undershirt/Drawers:</p>	<p>This part of the kit consists 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.</p>
<p>2 Midweight Cold Weather Shirt/Drawers:</p>	<p>These components 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 act as a layer for colder climates. They provide an increased surface area for transporting moisture away from the Soldier during movement.</p>
<p>3 Fleece Cold Weather Jacket:</p>	<p>This part of the system 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.</p>
<p>4 Wind Cold Weather Jacket:</p>	<p>This piece acts as a low-volume shell layer, optimizing the performance of moisture-wicking and insulation layers when combined with body armor systems and/or the Army Combat Uniform (ACU) in mild to transitional environments, such as from 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.</p>
<p>5 Soft Shell Cold Weather Jacket and Trousers:</p>	<p>This component of the system can be worn in lieu of the ACU in extended cold weather environments. The material is water-resistant and windproof, and increases moisture vapor permeability compared with current hard shell garments. The garment reduces weight, bulk, and noise signature during movement. Increased breathability improves performance of insulation layers by decreasing saturation from moisture vapor accumulation.</p>
<p>6 Extreme Cold/Wet Weather Jacket and Trousers:</p>	<p>This component is the only waterproof layer of the system. It is used for prolonged and/or hard rain and damp environments.</p>
<p>7 Extreme Cold Weather Parka/Trousers:</p>	<p>This layer provides superior warmth, is highly compactable, and is low in weight and volume. It is sized to fit over body armor and basic load carriage equipment (unzipped) during movement or static activities that require maximum insulation. This layer is highly water-resistant and windproof.</p>

