

# NEW ARMY JUNGLE WEAR GIVES TRENCH FOOT THE BOOT

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The standard issue combat boot most Soldiers wear today — the one most commonly worn in Iraq and Afghanistan — is great for sandy dunes, hot dry weather, and asphalt. But it's proven not so good in hot and wet environments. So the Army has developed a new jungle boot that some Soldiers will see this year.

In September 2016, Chief of Staff of the Army GEN Mark A. Milley directed the Army to come up with a plan to outfit two infantry brigade combat teams (IBCTs) in Hawaii, part of the 25th Infantry Division there, with a jungle boot. The Army had already been testing commercial jungle boots at the time — with mixed results — but didn't have a specialized jungle boot, so Program Executive Officer (PEO) Soldier, headquartered at Fort Belvoir, VA, had to get a plan together to make it happen.

By October, the Army had made a request to industry to find out what was possible, and by December contracts were awarded to two boot manufacturers in the United States to build more than 36,700 jungle-ready combat boots, enough to outfit both full IBCTs in Hawaii.

"This is important to the Army and important to Soldiers in a hot, high-humidity, high-moisture area," said LTC John Bryan, product manager for Soldier Clothing and Individual Equipment with PEO Soldier. "We are responding as quickly as we possibly can with the best available, immediate capability to get it on Soldiers' feet quickly and then refine and improve as we go."

## Mixing Legacy with Tech

Right now, the new jungle boot the Army developed will be for Soldiers with the 25th ID in Hawaii — primarily because there are actually jungles

in Hawaii that Soldiers there must contend with. The new boots look remarkably similar to the current boots Soldiers wear. They are the same color, for instance. And the boots, which Bryan said are called the "Army Jungle Combat Boot" (JCB), sport a variety of features drawn from both the legacy M1966 Vietnam-era jungle boot and modern technology.

The M1966 Jungle Boot, which featured a green cotton fabric upper with a black leather toe that could be polished, had a solid rubber sole that Soldiers reportedly said had no shock-absorbing capability. The new boot uses a similar tread, or "outsole," as the M1966 "Panama style" — to shed mud and provide great traction, but the added midsole makes it more comfortable and shock absorbing, according to Albert Adams, who works at the Army Natick Soldier Research, Development, and Engineering Center.

The outsole of the new boot is connected to the leather upper via "direct attach," Adams said. That's a process where a kind of liquid foam is poured between the rubber outsole and leather boot upper. "[It's] a lot like an injection molding process," he said.

The foam layer between the rubber sole and the upper portion of the boot not only provides greater shock absorbing capability, but it also keeps out microbes in hot, wet environments that in the past have been shown to eat away at the glues that held older boots together. So the new boots won't separate at the soles, he said. "It provides a high level of durability, and it also adds cushioning."

Also part of the new boot is a textile layer that prevents foreign items from puncturing the sole of the boot and hurting a Soldier's foot, Adams said. The M1966 boot accomplished that

with a steel plate. The new boot has a ballistic fabric-like layer instead.

The new JCB also features a heel with a lower height than the M1966 model to prevent snags on things like vines in a jungle environment. That prevents tripping and twisted ankles.

The boot also has additional drainage holes to let water out if it becomes completely soaked, speed laces so that Soldiers can don and doff the boots more quickly, a redesigned upper to make the boots less tight when they are new, an insert that helps improve water drainage, and a lining that provides for better ventilation and faster drying than the old boot.

## Feedback Formed Final Design

The Army didn't design the new JCB in a vacuum. Instead, it worked with Soldiers to get the requirements and design just right to meet the needs of Soldiers, said CPT Daniel Ferenczy, the assistant product manager for Soldier Clothing and Individual Equipment.

"We take what Soldiers want and need, we boil that down to the salient characteristics, hand that over to our science and technology up at Natick; they work with us and industry, the manufacturing base, to come up with this product," Ferenczy said. "This is a huge win, a great win story for the Army because it was such a quick turnaround."

Read more about the Jungle Combat Boot at <https://www.army.mil/article/183541>.

(C. Todd Lopez writes for the Army News Service.)