

Testing the XM40

“...better than the M17...”

by Rick Grumbach
COSCOM Public Affairs Office

A soldier tips back his canteen for a cool drink while testing the new drinking tube in the XM40. [Note: This part of the test did not involve wear of overgarment or gloves.]



The Army's new XM40 chemical-biological prototype protective mask was tested at Fort Bragg, North Carolina, during a routine chemical exercise conducted in August by the 1st Corps Support Command's 101st Chemical Company.

The prototype mask is just one of three that the Army is considering to replace the M17 protective mask, according to Ron Merkey, a human engineering evaluator from Aberdeen Proving Ground, Maryland.

The new mask, developed by the Chemical Research, Development, and Engineering Center, features an external air-filter canister with NATO standard threads that can be replaced without removing the mask, larger eye pieces for better peripheral vision, a new hood attachment, and a longer drinking tube. All openings on the revamped carrying case fasten with a Velcro latch and the shape of the carrier fits the soldier's leg snugly, "yet comfortably," Merkey says.

"The new mask has a second voicemitter piece moved farther back on the side of the facepiece to make it easier for a soldier to use a field telephone," he added.

Noting that the new prototype forms a better seal around the face when it has been properly fitted, Merkey explained that the prototype mask is similar to the British S-10 protective mask. "It fits against the face much

better than the M17 mask, and it's also easier to take care of and maintain."

The mask was tested on a group of soldiers from the 39th Field Artillery, 1st Battalion, while they were being trained in NBC situations by the 101st Chemical Company.

First, the evaluators set up an obstacle course for the soldiers to take the mask through. After finishing the course, a few of the soldiers complained that the Velcro fasteners wouldn't stay closed on the carrying case; but, the majority agreed that the new case was, by far, much better than the case being used with the M17 mask.

PV2 Greg Reinhardt, 39th Field Artillery, 1st Battalion, C Battery, said, "I prefer the new case because it opens a lot faster than the old one. The metal snaps on the old one would sometimes stick together. You don't have to worry about that with Velcro; you just rip it open."

After the soldiers took the mask through the obstacle course, they attempted to drink water from a canteen using the newly designed drinking tube. Evaluators noticed that the new tube needs to be a bit shorter because it kept poking the troops in the side of the face, rather than in the mouth.

"Overall, I think the new mask is better than the M17 model," said CPT Arthur Bland, an evaluator from the

The XM40, left, is one of three new masks being tested. The M17-series mask is on the right.

Human Engineering Development Center at Aberdeen Proving Ground, Maryland. "The mask is still being evaluated as a prototype, so it's hard to say whether it will be issued to the troops or not. That's a decision that will have to be made at a higher level of command. All we're doing right now is checking it to see how it holds up under the troops and what they think of the new product." 

