



# News Release

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## **ECBC Demonstrates First Prototype of Multi-Colored Smoke Grenade**

*Breakthrough technology would lighten Soldiers' load and allow for increased use of essential communications signaling*

**ABERDEEN PROVING GROUND, Md.** – Engineers from the U.S. Army Edgewood Chemical and Biological Center (ECBC) have tested the first prototype of a multi-colored smoke grenade designed to “lighten the load” for Soldiers in the field.

The prototype, called the “Selectable Color Single Canister Smoke Hand Grenade,” would allow soldiers to carry one smoke grenade that can produce up to seven different colors used for signaling. An important communications tool for the modern warfighter, the current M18 grenade contains just one color of smoke (red, yellow, green or violet) per grenade. Since each color serves a distinct purpose for signal-calling, soldiers are often required to carry most or all colors at all times, adding a physical burden that could affect their speed and agility. Having one, multi-colored smoke grenade would decrease that burden while still providing the technology that soldiers require in combat.

“Tomorrow’s Army is expected to be smaller in size, but greater in capability,” said project lead Ameer La Bonte, an engineer with ECBC’s Pyrotechnics and Explosives Branch. “The Future Soldier will need to be a component in a lighter weight, more lethal, more survivable force. Having multi-purpose communications gear like this grenade will add to that capability without increasing a soldier’s load.”

The ECBC team has been working on the project with \$25,000 in seed money that had been awarded through the Section 219 funding program, which encourages Army scientists and engineers to bring their innovative ideas to fruition to benefit their customers, the Warfighter and the nation.

To continue development of the project, ECBC experts must ensure that the majority of the dyes vaporize without being destroyed during dissemination while exposed to the required hot gas stream, as well as resolve other challenges in the actual chemical formulations to be used in the grenades. The U.S. Army Armament Research, Development and Engineering Center (ARDEC) will refine ECBC’s initial design, evaluate plastic and other materials for use in building the actual dissemination grenade, and cooperatively work with ECBC to ensure that the grenade will function under all weather and combat conditions.

***Approved for Public Release***

“Even after the first successful demonstration of the prototype, much work needs to be completed before this device is ready to be placed into the hands of a soldier,” Joseph Domanico, ECBC Senior Engineer for Pyrotechnics and Explosives and Ammunition Control Officer. “As development of the prototype continues, our team is committed to the project and to the value of the capability it brings to the Army and our warfighters.”

CNN recently featured ECBC’s work on modernizing the Army’s smoke grenades. Watch the video here <http://www.cnn.com/video/data/2.0/video/tech/2014/06/27/natpkg-orig-tech-future-smoke-grenade-rachel-crane-bpa.cnn.html>

For more information about ECBC, visit <http://www.ecbc.army.mil/>.

*ECBC is the Army’s principal research and development center for chemical and biological defense technology, engineering and field operations. ECBC has achieved major technological advances for the warfighter and for our national defense, with a long and distinguished history of providing the Armed Forces with quality systems and outstanding customer service. ECBC is a U.S. Army Research, Development and Engineering Command laboratory located at the Edgewood Area of Aberdeen Proving Ground, Maryland. For more information about the Edgewood Chemical Biological Center, please visit our website at <http://www.ecbc.army.mil> or call (410) 436-7118.*

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