

Grenade Confidence Clip Limited Objective Experiment

Robert J. Spine
U.S. Army Research Laboratory
Picatinny Arsenal, NJ

Cadets Yecenia Diaz and John Pitonyak
United States Military Academy
West Point, New York

ABSTRACT:

Soldiers in both the Iraq and Afghanistan theaters of conflict use tape to secure the safety devices on all types of hand grenades. This is because soldiers lack confidence in the current safety devices. In response to this and a recent accident where three soldiers were injured when removing the tape from a grenade, the Commanding General, United States Army Forces Command (FORSCOM) has requested the incorporation of an additional grenade safety (confidence clip). The purpose of the Limited Objective Experiment (LOE) was to assess the confidence clip for use with the M67 Fragmentation Grenade. The experiment measured soldier acceptance and compatibility to validate the design and help support a production decision. The Soldier Battle Lab collected empirical data through field testing using the M69 training grenade. The experiment included grenade familiarization training, individual movement techniques, and an urban obstacle course. The tests were conducted with and without gloves. Data was collected through measurements and questionnaires.

KEYWORDS: confidence clip, acceptance, compatibility

CONTACT: Robert J. Spine, U.S. Army Research Laboratory, Picatinny Arsenal, NJ,
Tel: (973) 973-3227, Email: robert.spine@us.army.mil

CDT Yecenia Diaz, United States Military Academy, West Point, NY,
Tel: (845) 515-4762, Email: Yecenia.diaz@usma.edu

CDT John P. Pitonyak, United States Military Academy, West Point, NY,
Tel: (845) 515-1995, Email: john.pitonyak@usma.edu