FOCUSED ON THE WARFIGHTER

Ammunition Community of Practice

[Ammo CoP]

NEWSLETTER

From the Desk of:

Our weekly update focuses on new discussions, content and members. The Ammo CoP offers members a chance to connect and collaborate with, quality content and discussions available, all specifically for all professionals who work with and/or around ammunition (Military, Civilians and Contractors alike)! Pass this newsletter on to your friends and peers that may not have heard about the Ammo CoP and invite them to join us at: https://acc.dau.mil/ammo

Feature Requests…

In a continued effort to improve on this Newsletter and make it serve the purpose of the CoP, if you have something you would like to see highlighted in this newsletter (people, activities, ammo items, etc…), or if you have any pictures and/or bits of information you would like to include in future newsletters, please send them to me.

Ms. Garcia
Ammunition Forum Facilitator
Training & Consulting Inc. (TCI)
Subject Matter Expert
Former QASAS

Questions and Answers

1 August 2016

Ammo Apps

Do you have questions for your peers and fellow Ammunition Professionals? If so logon to: https://acc.dau.mil/ammo and post your question so that our members can share their experience, knowledge and expertise with you. Before using the "Ask an Expert" feature please table your questions in the forum.

ESQD Formula: K-Factor

For HC/D 1.1 mass detonating material, the blast effect is the primary hazard. Most distances required to protect structures from the effects of a shockwave/overpressure are based on the formula:

D = KW1/3

D = distance in feet
K = a factor depending upon the risk assumed or permitted.
W1/3 = cube root of the NEW in pounds

DA Pam 385-64, Table 8-1, Safe Separation Distances and Expected Severities (HC/D 1.1)

Often times, the numerical K-factor is used interchangeably with the type of distance or level of protection it prescribes. In this document is a list of permissible exposures along with the corresponding K-factor and type of distance. Contributed by Mr. Wachutka

US Coast Guard Marine Safety Alert: Avoid Accidental Hazmat Exposure

This safety alert serves to remind Coast Guard Container Inspectors and others involved in the inspection or handling of intermodal containers to be aware that there is always a risk of exposure to hazardous materials, whether the containers are marked as containing HAZMAT or not.

During a recent review of Coast Guard container inspector injuries, there were several instances related to acute exposures to hazardous materials.

In all reported instances, exposed inspection personnel immediately backed away from the container to a safe distance and sought medical treatment and professional response to the release. Contributed by Mr. Tibbetts

Remember this forum is for collaboration and knowledge sharing among all of us within the ammunition community. If you have a question that we may be able to help you answer, or if you have developed an SOP, best practice, or TTP that helps you do your job, post it to Ammo CoP. The few minutes you take to upload something could save someone else hours of work. If you're not sure how or need assistance just send me a note or visit the user training site available at: https://acc.dau.mil/usertraining

Rocket or Missile Barricade Option (RAMBO) to Prevent Downrange Flight of 2.75" Rockets or Hellfire Missiles Inadvertently Launched from Parked Aircraft

Enclosed is the Corps of Engineers – Huntsville design and United States Army Technical Center for Explosives Safety (USATCES) approved barricade to prevent downrange flight of a 2.75" Rocket launched from a parked aircraft preventing possible facility and equipment damage and personnel deaths or injuries. The RAMBO barricade is a combination of sand-filled containers backed by a concrete T-wall. Enclosure outlines design specifications and minimum barricade heights.

The RAMBO barricade was not tested for Hellfire missiles or 30mm gun ammunition. The RAMBO is likely to stop 30mm gun ammo but is unlikely to stop a missile. The RAMBO may cause a missile to disintegrate or detonate. Therefore, the RAMBO should not be depended upon to protect downrange assets but may be preferable to no intervening barricade since it may reduce downrange flight of the missile. It can be assumed, that in most cases, the RAMBO is the preferred option.

Caution: When the rocket/missile pod/rail is not horizontal, barricade heights increase dramatically. A standard 6 ½ foot tall barricade design, is sufficient for rockets/missiles with a 43" height (horizontal) above the ground.

A test program was instituted to determine effective designs for helicopter parking pads to prevent an accidentally launched 2.75" rocket from going downrange. The resulting barricades are a combination of sand-filled containers backed by a concrete T-Wall. Design is included in DEF 149-30-01, "Barricades", 18 Aug 2011 (B16, sheet 9, https://www.wbdg.org/ccb/ARMYCOE/CAD/standard_barricades.pdf) as referenced in DDESB TP15, Approved Protective Construction. Contributed by USATCES

Picatinny employees create grenade fuze and detonator with flying disc

A photograph of the awarded patent, a grenade fuze and detonator with flying disc

A major concern in the field of fuzing and detonators is the ability to meet the Insensitive Munitions (IM) compliance requirements. Insensitive munitions are designed to replace munitions that can easily be detonated by unplanned stimuli, including heat and impacts.

IM improvements are mandated by law in the United States to avoid accidents and the subsequent loss of human life, the cost of repairing and replacing material, and the toll taken on operational readiness and capability.

The grenade fuze has been the root cause of all IM test failures for lethal grenades. A need existed for fuzes and detonators that were less sensitive to impacts and heat than known fuzes and detonators.

The grenade fuze and detonator with flying disc patent was filed in May 2014 and approved in February 2016. Read the complete article by Eric Kowal, Picatinny Arsenal Public Affairs, dated July 26, 2016

UXOINFO.com

Read about the WWII practice bomb found on the beach in Massachusetts; the military marine white phosphorous flare floating in the waters of Nantucket Sound; aging Dynamite in Virginia; and a Cannonball found in a garage. Follow the series of articles by Robert Woosley who was stationed at the Theodore Navv Magazine following the end of WWII. Contributed by Mr. Tibbetts

Don't Forget…

This is our community and it'll only be as good as we make it. I'm always interested in hearing any ideas you may have in reference to suggested improvements to this newsletter or the CoP– if you have any suggestions, please send them to me.

Send your Questions, Submissions, Comments and/or Suggestions to:

Newsletter Editor **Email: https://acc.dau.mil/CommunityBrowser.aspx?id=220200&profileid=236465&view=a**