

More About DIME(Dense Inert Metal Explosive) and GBU Bombs

First bombs are basically two types

Blind Bombs and Smart Guided Bombs

1- Blind Bombs are the most illegal one, huge weighted, high civilian casualties percentage, used in WW2 as type of (hold and throw) bombs

2- Smart Guided Bombs (General Name : precision-guided munitions , DIME name : Small Diameter Bomb - SDB)

Smart Bombs developed to facilitate precise and focused attacks in densely populated areas, causing focused effect with minimal collateral damage. and that can be done using high Tech such as Laser Targeted Mode, Camera or TV Control Mode, GPS Targeted Mode, Cannon-launched Targeting and Advanced Targeting concepts (JDAM the root of DIME)

Second JDAM bombs holds too many types, GBU family, LBU family and others

some of GBU bombs are DIME Bombs like GBU-39

So, Back to DIME now

as we said before DIME or SDB made to lower the civilian casualties and according to the US speech :

"munitions based on DIME technology will benefit the war-fighter in missions where standard munitions would inflict unacceptable collateral damage levels."

DIME Born :

The research into DIME technology is conducted by the US Air Force Research Lab partnered with Lawrence Livermore National Laboratory.

DIME Warhead:

The warhead case consists of a low-density, wrapped carbon-fiber/epoxy matrix integrated with a steel nose and base. The low-density composite case can survive penetration into a one-foot hardened concrete wall.

DIME Explosion:

Upon detonation, the carbon-fiber warhead case disintegrates into small non-lethal fibers with little or no metallic fragments, thus significantly reducing collateral damage to people and structures. The warhead explosive fill is a dense inert metal explosive containing fine tungsten particles to provide a ballasted payload with sufficient penetration mass. The tungsten displaces energetic material so as to reduce the total energetic used. The net results are higher dynamic energy impulse all within a small lethal footprint.

DIME Toxic/carcinogenic Effects:

-Cause neoplastic transformations of human osteoblast cells.

-Pure tungsten and tungsten trioxide are also suspected of causing cancer and other toxic properties.

-In 2009, a group of Italian scientists affiliated with the watchdog group New Weapons Research Committee (NWRC) pronounced DIME wounds "untreatable" because the powdered tungsten cannot be removed surgically (Ref 6).

JDAM Platforms:

B-1, B-2, F-22, F-16, F-15E and others

DIME and GAZA:

A Norwegian Dr Erik Fosse, said that Israel used DIME bombs in 2008-2009 and also in 2014, and these bombs cause micro-shrapnel injuries

For More watch this :

https://www.youtube.com/watch?feature=player_embedded&v=LyBS6j5WR-c

Also the attached photos show some sort of GBU bombs being used

List of munitions of Bombs used by the Israeli Air Force (Ref 4, 5) :

GBU-12 – GBU-15 – GBU-16 – GBU-27 – GBU-28 – GBU-31 – GBU-32 – GBU-39 – BLU-109

Guidance kits : JDAM – Spice

Related photos:

-A laser-guided GBU-24 strikes its target - Somewhere.



-Some sort of GBU bombs over houses - GAZA



-Some sort of GBU bombs over houses - GAZA



-Some sort of GBU bombs over houses - GAZA



-An F-16 drops a JDAM-equipped GBU-31 2,000-pound bomb - Somewhere.



-Some sort of GBU-JDAM bombs over houses - GAZA









References:

1. <http://defense-update.com/products/d/dime.htm>
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3. <http://www.earth-heal.com/videos/viewvideo/3749/norwegian-doctor-dime-dense-inert-metal-explosive-bombs-being-used-in-gaza.html>
4. http://en.wikipedia.org/wiki/List_of_munitions_used_by_the_Israeli_Air_Force
5. <http://www.dsca.mil/major-arms-sales/israel-munitions>
6. http://newweapons.org/filestore/press/press_nwrc_2009-01-09-eng.pdf