





2004 Insensitive Munitions & Energetic Materials

Technology Symposium



November 15, 2004



Rear Admiral Michael G. Mathis

Director, Joint Theater and Air Missile Defense Organization Deputy Director, J-8, Force Protection

Implementing Policies



Congressional Interest

USC, Title 10, Chapter 14, December 2001: "§ 2389: Ensuring safety regarding insensitive munitions." "The Secretary of Defense shall ensure, to the extent practicable, that insensitive munitions under development or procurement are safe throughout development and fielding when subject to unplanned stimuli."

Department of Defense Policy

DoDD 5000.1, May 12, 2003: E1.23. Safety: "... All systems containing energetics shall comply with insensitive munitions criteria."

Joint Chiefs Policy

• Chairman, Joint Chiefs of Staff Manual CJCSM 3170.01, June 23, 2003:
"Insensitive Munitions Waiver Requests. Insensitive munitions waiver requests require approval by the JROC. Insensitive munitions waiver requests shall include a Component or agency approved insensitive munitions plan of action and milestones to identify how future purchases of the same system or future system variants will achieve incremental and full compliance. Waiver requests will be submitted to J-4 for review, then forwarded to the JROC Secretariat in conjunction with JCIDS staffing for JROC consideration."



Insensitive Munitions

A program to minimize collateral damage to personnel, weapon platforms and logistics systems

A trade between performance, safety and cost

....only one aspect of Ordnance Safety



Why We Need IM

Roseville, CA - Slow cook of f

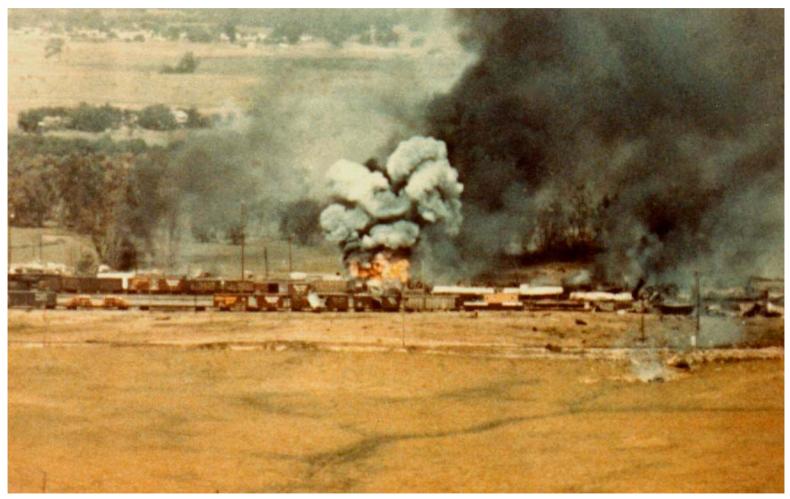
Doha, Kuwait - Sympathetic Detonation

Port Chicago, CA - Sympathetic Detonation

USS Forrestal, CVA-59 - Fast cookoff

Roseville, CA





April, 1973

Doha, Kuwait





July, 1991

Port Chicago, CA





July, 1944

USS Forrestal, CVA-59





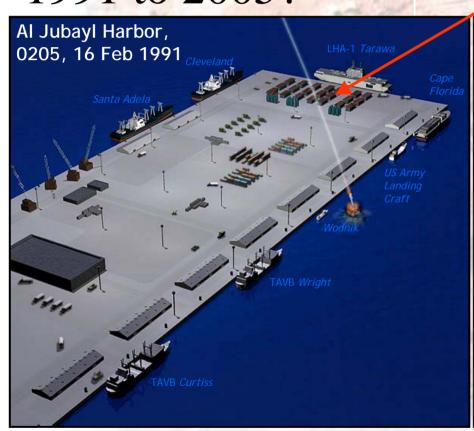
July, 1967

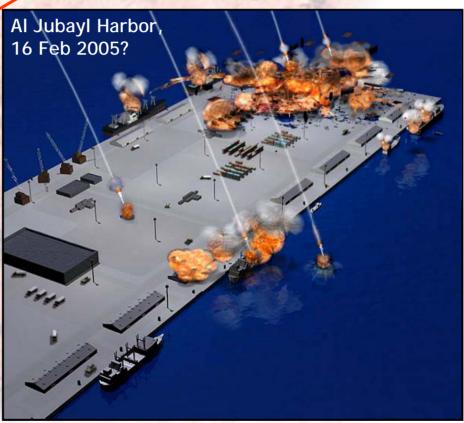
Could It Happen Today?

Al Jubayl ... 1991 to 2005?



© Adam Siegel, 1991





Graphics courtesy of Northrop Grumman Analysis Center.



Insensitive Munitions have high visibility

We have the policy and processes in place to support continued success:

- Implementing Policies: Title 10; DoDD 5000; CJCSI 3170
- JCIDS Process: FCB / JCB / JROC

IM Certification across all Services now a Force Protection Responsibility

Industry has a Major role!

We're Making Progress



 Using a systems approach of less sensitive explosives and case modifications can greatly reduce the reaction violence and collateral damage when our own weapons are threatened



GP Bomb bullet impact test w/o IM explosive



GP Bomb bullet impact and slow cook-off test with IM explosive

EXPLOSIVE CHARGE



BLU-118/B Thermobaric Weapon configured for EOD Disposal (no less than 10lbs C-4 TDC)

Moving Ahead Jointly



- The BLU-110/111/117 Bomb System
 - Navy developed liners, fills and case designs
 - Air Force developed improved explosives and venting designs
 - Air Force and General Dynamics designed concept units and manufactured test assets
 - Navy conducted risk reduction
 - Army and Air Force facilities loaded the bombs
 - Navy conducted complete IM test series

Single bomb family is achievable on Joint battlefield

Strategic Planning Initiative – The IM Roadmap

- Insensitive Munitions Strategic Planning
 - Provide a management and oversight tool that will provide a comprehensive picture of the IM status and plans for each weapon system.
 - Permits the JROC to receive a macro perspective and minimizes individual IM waivers.
 - Allows a PEO to develop an IM investment plan within the context of their total portfolio.





Safe Weapons in Joint Warfighting Environment

- Safe Weapons Working Group Formed
- Developing change language to CJCSI 3170.01 and CJCSM 3170.01 to establish a Joint Weapon Safety Certification process
- Force Protection Functional Capabilities Board Scheduled to Review Proposed Safety Revisions on 16 Dec 04



Joint Weapons Safety Council

Leverage Existing Weapons sSafety Review Personnel

To Support Joint Weapons **Safety Council**



Air Force

Nonnuclear Munitions Safety Board (NNMSB)



Army

Material Release Process Fuze Safety Review Board





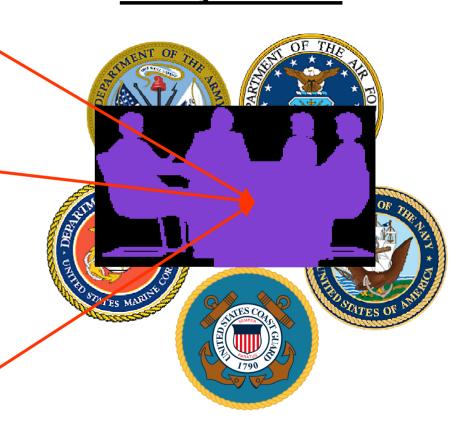


Navy

Marine **Corps**

Coast Guard

Weapon System Explosives Safety Review Board (WSESRB)



Provide Recommendations to DDFP

The IED Challenge



















UNCLASSIFIED

Munitions Caches in Afghanistan



82mm Mortars (Kandahar)



Landmines (Kandahar)



82mm Mortars (Bagram)



RPG & Small Arms (Kandahar)



RPG & Small Arms (Kandahar)



82mm Mortars (Kandahar)



IM compliant weapons offer a significant level of Force Protection.

Keep the pressure on!



Backups

