

UNITED STATES MARINE CORPS CLASS V(W) GROUND AMMUNITION







Marine Corps Ammunition Maintenance Program

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Introduction

- MARCORSYSCOM – (PM-AMMO) is responsible for all aspects of Class V(W) ammunition
- Stockpile is driven by “Total Munitions Requirement”
 - Sustain Marines in combat
 - Provide adequate training ammunition
- Current inventory satisfies the TMR
 - Stockpile worth \$4B and located at various locations around the world.



Management of the Stockpile

- Team concept
 - Surveillance
 - Maintenance
 - Acquisition
- Mission: ensure a ready supply of dependable ammunition is available to meet worldwide requirements for both training and contingencies



Ammunition Surveillance

- Periodic inspections
 - Identify problematic areas
 - Recommend courses of action
- Shortfalls to the TMR
- Two courses of action
 - Maintenance
 - Acquisition



Maintenance of the Stockpile

- MARCORSYSCOM (PM-AMMO) oversight
- Project management conducted by NSWC, Crane, Indiana.



Marine Corps' Class V(W) Inventory

- 360 end item assemblies identified by a Department of Defense Identification Code (DODIC)
 - Thousands of lot and serial numbers
- Ammunition age range
 - New production
 - 60 years



Ammunition Expectations

- Must survive in storage
 - Long periods
 - Still function when employed
- For ammunition to be successful it must provide the desired effect when employed
 - Range
 - Accuracy
 - Destruction of the target



Ammunition Performance

- Age can effect ammunition negatively
 - Electrical components become defective
 - Energetics deteriorate
 - Metal corrodes
- Other situations for maintenance include
 - Factory defects
 - Malfunctions
 - Reclassifications



Ammunition Maintenance

- Discrepancies are categorized as either minor or major
 - Minor
 - Packaging discrepancies
 - Corrosion
 - No safety concerns or adverse effect on usage
 - Major
 - Critical safety concerns
 - Serious component malfunction



Maintenance Decisions

- Some ammunition items are easily procured at reasonable costs.
 - Small arms
 - Pyrotechnics
- FIFO policy
 - Timely expenditure
 - Minor defects reclassified to a priority status



Common Maintenance Items

- Rockets, missiles, mortars, and high cost and long shelf life munitions
 - Assembled units
 - Long shelf life
 - Possesses one or more bad or defective component
- Usually detected while monitoring usage data, malfunction data, or surveillance



Beginning the Maintenance Process

- Maintenance candidates are identified
- Required components are procured
- Labor estimates are solicited
 - Potential maintenance sites
 - Best value for the investment
- Factors considered for best value
 - Cost of transportation
 - Quality management
 - Cost per unit renovated



Project Manager's (ISEA) Responsibilities

- Develops scope of work
- Evaluates potential maintenance sites
- Negotiates a contract
- Provides management oversight
- Provides close out reports

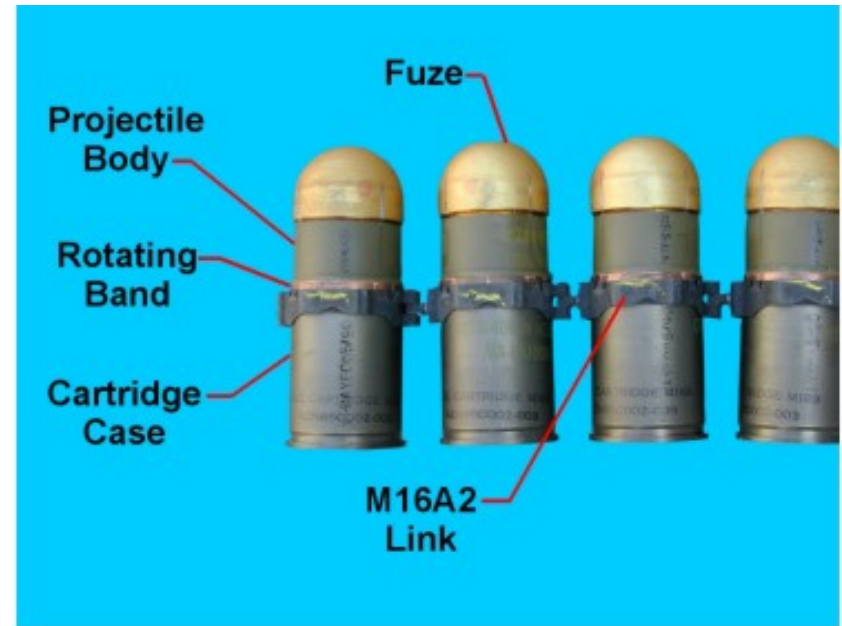


Prior Marine Corps Maintenance Projects



B542 - 40MM HEDP

- Fired from the MK-19 Machine gun
- Numerous malfunctions resulting in injuries.
- Projectiles became lodged in the barrel
- Next round collides
- Occasional explosions



Cartridge, 40mm HEDP M430 Linked
(DODIC B542)



B542 - 40MM HEDP

- Entire stockpile suspended
- All training ceased
- Joint service team assembled
- Insufficient propellant discovered





B542 – 40MM HEDP

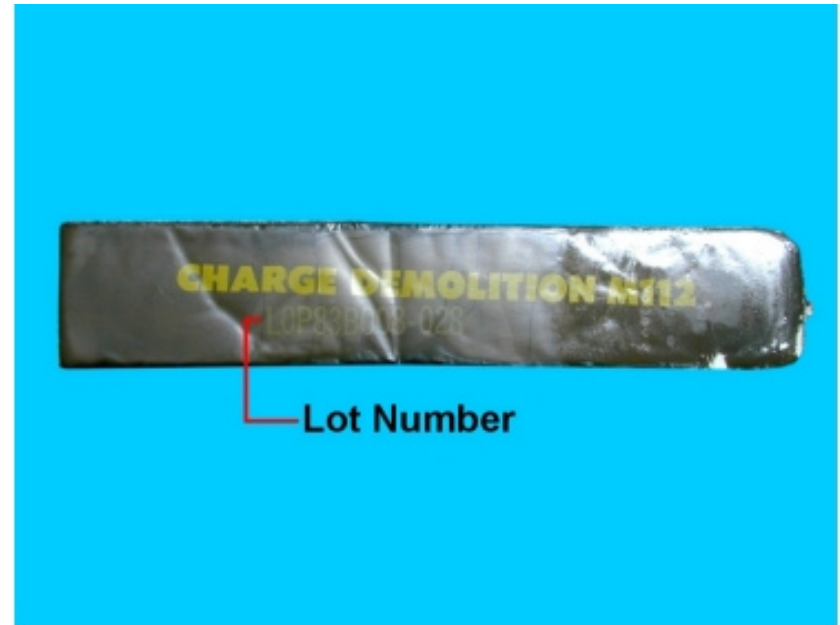
- Maintenance project developed
- Radiographic inspection process
- Measured the density of propellant
- \$84M cost avoidance related to procurement of new cartridges





C-4 Extrusion

- Initiated due to the 1991 Montreal Convention treaty
- Pilferable plastic explosives to be tagged by 2013
- C-4 from 451 LDCs used
- 14K M757 explosive kits required tagant
- \$18M cost avoidance related to procurement of new cartridges



Charge, Demolition Block M112 1 1/4
Pound C4 (DODIC M023)



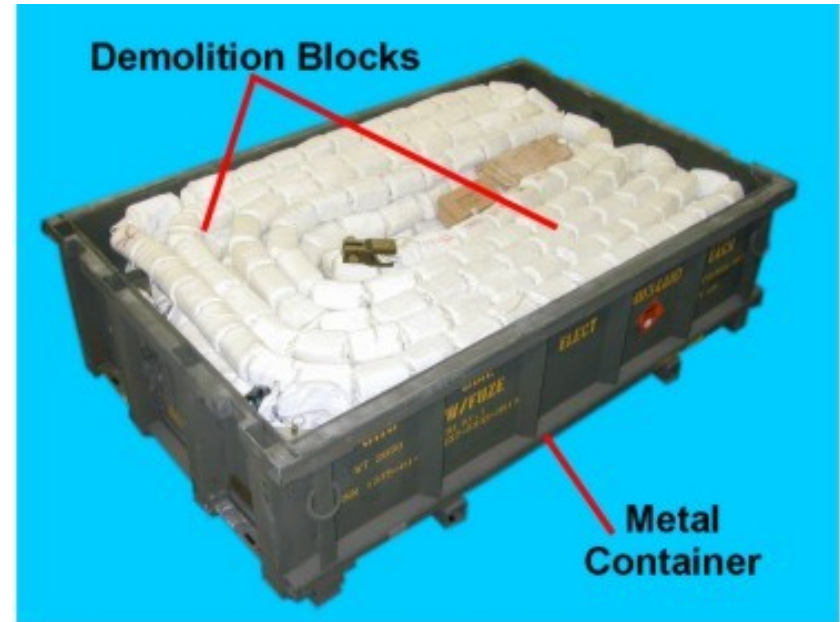
M913/ML25 Line Charge





M913/ML25 Line Charge

- 40+ years of service
- Several launching formats
- Slope nose containers 28% reliable
- New configuration 90+%
- \$40M cost avoidance related to procurement of new cartridges



Charge, Demolition High Explosive Linear
M58A3 (MICLIC) (DODIC M913)



Other Successful Maintenance Projects

- AT4 83 MM Rockets \$26M
- J143 \$24M
- TOW Missiles \$94M
- C871 \$1.4M




Summary


- The Marine Corps ammunition maintenance program is highly effective in providing a cost avoidance in procurements by returning unserviceable stocks to the useable stockpile.
- The program also provides the Marine Corps with the capability of providing a near term resolutions to ammunition reclassified as unserviceable.



Questions?

AMMO A green and yellow missile is shown in flight, positioned as if it has just struck or is about to strike a target. The target is a red circle with a crosshair, centered on the letter 'O' of the word 'AMMO'.

you can't live without it...
...AND the enemy *won't* live with it!

A black and white line drawing of a military unit in a field. One soldier is lying on a stretcher, being carried by two others. Another soldier stands nearby, and a fourth soldier is kneeling in the foreground, aiming a rifle. The background shows a hilly landscape.