Munitions Executive Summit
USMC Munitions Readiness

28 Mar 17

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Marine Corps Systems Command
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Agenda:

• PM Ammo Overview
• Training Expenditures
• Budget Trends
• Planned Procurements
• Strategic Plan Update
Equipping Marine Forces with the Most Capable, High Quality, and Cost Effective Class V(W) Supply

**BUSINESS SYSTEMS**
- OIS-MC
  - Procurement
  - Requisition Management
  - Logistics Supportability Analysis
  - Inventory Visibility & MAKE
  - Maintenance
  - Lot & Serialized Item Tracking
  - Tech Data Management

**GOALS & OBJECTIVES**
- Provide Marines the highest Quality, Most Cost Effective Ammunition
- Optimize Processes, Tools and Resources of the Marine Corps Ammunition Enterprise
- Continuously Improve Our Professional Credibility
- Optimize USMC Class V(W) Supply Chain Management
- Proactive Engagement with Partners, other Services & Industry
- Leverage Technology Advancements

**Mandates**
- Acquisition Law Policy
- Data Ready Environment
- Explosives Safety Policy
- Operational Plans
- JCAAP
- TMR
- CD&I (WRMR)
- TECOM (TTR)
- PP&E Prioritization
- Ammo Working Group

**Requirements**
Annual Training Expenditures

• Marine Corps annually expends between $500M to $600M in ground ammunition to support live fire training
• Healthy inventories in some items preclude short-term production requirements
• Top FY15 and FY16 Capability Training Expenditures (replacement cost):

<table>
<thead>
<tr>
<th>FY15</th>
<th>FY16</th>
</tr>
</thead>
<tbody>
<tr>
<td>155mm HE Projectile</td>
<td>155mm HE Projectile</td>
</tr>
<tr>
<td>$206M</td>
<td>$127M</td>
</tr>
<tr>
<td>81mm HE Mortar</td>
<td>81mm HE Mortar</td>
</tr>
<tr>
<td>$56M</td>
<td>$42M</td>
</tr>
<tr>
<td>83mm Assault Rocket (SMAW)</td>
<td>83mm Assault Rocket (SMAW)</td>
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<tr>
<td>$45M</td>
<td>$43M</td>
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<tr>
<td>60mm HE Mortar</td>
<td>60mm HE Mortar</td>
</tr>
<tr>
<td>$38M</td>
<td>$51M</td>
</tr>
<tr>
<td>.5.56mm Ball</td>
<td>.5.56mm Ball</td>
</tr>
<tr>
<td>$26M</td>
<td>$26M</td>
</tr>
<tr>
<td>TOW-2 Guided Missiles</td>
<td>TOW-2 Guided Missiles</td>
</tr>
<tr>
<td>$23M</td>
<td>$29M</td>
</tr>
<tr>
<td>CTG, 84mm &amp; LNCHR</td>
<td>50 Cal Ball Linked</td>
</tr>
<tr>
<td>$17M</td>
<td>$12M</td>
</tr>
<tr>
<td>MLRS Rocket</td>
<td>MLRS Rocket</td>
</tr>
<tr>
<td>$16M</td>
<td>$7M</td>
</tr>
<tr>
<td>40mm Practice Grenade</td>
<td>40mm Practice Grenade</td>
</tr>
<tr>
<td>$16M</td>
<td>$21M</td>
</tr>
<tr>
<td>155mm M232 (MACS) Propelling Charge</td>
<td>155mm M231 &amp; M232 (MACS) PropChg</td>
</tr>
<tr>
<td>$14M</td>
<td>$30M</td>
</tr>
<tr>
<td>40mm HEDP Grenade</td>
<td>40mm HEDP Grenade</td>
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<tr>
<td>$14M</td>
<td>$17M</td>
</tr>
<tr>
<td>120mm Tank Training Cartridge</td>
<td>120mm Tank Training Cartridge</td>
</tr>
<tr>
<td>$11M</td>
<td>$19M</td>
</tr>
<tr>
<td>Stinger Missiles</td>
<td>Stinger Missiles</td>
</tr>
<tr>
<td>$52M</td>
<td>$52M</td>
</tr>
</tbody>
</table>

$482M >80% of training expenditures

$476m >73% of training expenditures
President’s Budget 2017 Information

<table>
<thead>
<tr>
<th>Appropriation</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
<th>FY18</th>
<th>FY19</th>
<th>FY20</th>
<th>FY21</th>
<th>Total</th>
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<tbody>
<tr>
<td>RDT&amp;E</td>
<td>926,000</td>
<td>1,000,000</td>
<td>1,169,000</td>
<td>1,110,000</td>
<td>1,067,000</td>
<td>1,007,000</td>
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<td>PAN, MC</td>
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<td>145,654,000</td>
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<td>O&amp;M</td>
<td>18,336,000</td>
<td>18,573,000</td>
<td>17,617,000</td>
<td>17,621,000</td>
<td>17,932,000</td>
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<td>18,708,000</td>
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<td>Suppl PAN, MC</td>
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<td>66,960,000</td>
<td>5,326,000</td>
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<td>-</td>
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<td>164,341,000</td>
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<tr>
<td>Suppl O&amp;M</td>
<td>-</td>
<td>-</td>
<td>11,000,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11,000,000</td>
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<tr>
<td><strong>Totals</strong></td>
<td>223,353,000</td>
<td>232,187,000</td>
<td>242,008,000</td>
<td>271,870,000</td>
<td>365,929,000</td>
<td>379,421,000</td>
<td>1,951,977,000</td>
<td>1,951,977,000</td>
</tr>
</tbody>
</table>
Congressional Marks for FY17

- Small Arms - $0.936M
- 40mm - $1.570M
- 120mm - $6.33M
- Grenades - $0.972M
- Rockets - $1.75M
- Artillery - $3.75M
- Fuze - $5.448M
- Less Than 5 Million - $4.0M
Marine Corps Budget Format Change

Consolidated BLINS

- Infantry Weapons (New)
  - Small Arms (Old)
  - 25mm (Old)
  - 40mm (Old)

- Combat Support Munitions (New)
  - Non Lethals (Old)
  - Demo (Old)
  - Grenades (Old)
  - L/C (Old)

- Direct Fire (New)
  - Rockets (Old)
  - 120mm (Old)

- Artillery (New)
  - Artillery (Old)
  - Fuzes (Old)

- Mortars (New)
  - 60mm (Old)
  - 81mm (Old)
Class V(W) Ammunition (521 DODICs in current inventory)

Conventional Ground Ammunition

President’s Budget 17 Funded Ammunition Production

- Small Arms- 5.56mm Ball, 5.56mm SESAM, 9mm Blank, .50 Cal Reduced Range
- Line Charges- None
- 40mm- Mk281 HV Day/Night Trainer
- 60mm- Full Range Trainer
- 81mm- None
- 120mm- EFSS WP, PERM
- 25mm- None
- Grenades- None
- Rockets- SMAW Practice
- Artillery- 155mm HE (IMX/TNT)
- Demolition- .166in & .333in Demo Sheet
- Fuzes- PGK

Ammunition Life Cycle Management

- Ammunition Automated Information System(s) (AAIS) Operation and Maintenance
- Inventory Control Point (ICP)
  - Supply Chain Management
  - Inventory Management
  - Operational and Sustainment Planning
  - Support to Deployed Forces
  - Inventory Accuracy Oversight
- Maintenance
- Service Life Accelerated Age Testing (SLAAT)
- Environmental and Explosives Safety Management
- Quality Assurance
- Technical Support
Program

(2) Cartridge (CTG), .50 Cal Reduced Range (RR) (1000 Yards): AC14 and AC15
- CTG, Linked 4API & 1APTI-T (RR)
- CTG, Linked Ball (RR)

(2) CTG, 5.56mm Special Effects Small Arms Marking (SESAMS): AB05 and AB06
- CTG, 5.56mm SESAMS Blue f/M4/M16
- CTG, 5.56mm SESAMS Red f/M4/M16

CTG, 9mm Blank: AC07
- New to the inventory to support Military Working dog training

CTG, 5.56mm Ball: A059/AC12/AB57
- Will be used for training until USMC decision on increased lethality round of the future determination

Strategy

FY17 -
Full and Open
NSWC Crane CTO
Eventual transition to SMCA

FY17 -
Sole Source & Competitive
MCSC CTO

FY16 -
Sole Source
MCSC Crane CTO
Eventual transition to SMCA

Ongoing production
SMCA CTO
Program

40mm Day/ Night Marker
(Target Practice, High Velocity),
MK281 MOD3: BA21

Strategy

Procurements FY17
MCSC CTO
Sole Source Bridge
Will eventually transition to SMCA managed Day/Night/Thermal Marker

60mm Full Range Practice:
M769: BA15

Procurements FY17-
SMCA CTO
Full and Open
Marine Corps adopting more training unique ammo
Program

(3) Cartridge, 120mm Mortar EFSS WP, M1103: CA49

Projectile, 120mm Mortar Precision Extended Range Munition: PERM

Cartridge, 120mm Tank Training (TPCSDS-T M865): C785

Strategy

FY17
Switch to 120mm Smoothbore WP
SMCA CTO

In Production
MCSC CTO
Full and Open Contract Awarded

FY17-19
SMCA CTO
Maintenance Project
Program

Rocket, 83mm HEAA Practice, MK7 Mod 0 (SMAW): HX07

Strategy

Procurements FY17-FY21
SMCA CTO

(3) Projectile, 155mm HE
(IM, Practice TNT, TNT Legacy): DA54, DA51, D529

Procurements FY17-21
SMCA CTO
USMC adopted new training strategy
Program

(2) Charge, Demolition Sheet, .166in, .333in: M982, M986

Strategy

Procurement FY17
SMCA CTO

Fuze, Precision Guidance Kit
M1156 (PGK): NA29

Procurements FY17-21
SMCA CTO
Published PM Ammunition 2017-2020 Strategic Plan

• Goals
  – Maintain & Improve the high quality people that makeup PM Ammo.
  – Provide Marines with the highest quality, most cost effective ammunition.
  – Optimize processes and tools of the Marine Corps ammunition enterprise.
  – Continuously Improve PM Ammunition Professional Credibility.

• Select Objectives
  – Ensure maximum availability of safe, reliable and effective ammunition inventory to satisfy the TMR.
  – Optimize ammunition supply chain, IT tools and Knowledge Engineering processes.
  – Ensure PM Ammo training requirements are defined and training is available to PM Ammo personnel.
  – Use appropriate procurement & acquisition tools to obtain the best value within available resources.
Published PM Ammunition 2017-2020 Strategic Plan

• Select In-Process Actions
  – Maintain integrated strategy that balances ammunition inventory shortfalls with the optimal means to achieve addressing them.
  – Develop process to determine ammunition life cycle management (ALCM) funding requirements and communicate associated return on investment.
  – Create a strategy to prioritize and implement technology (i.e. Insensitive Munitions and technology roadmap).
  – Develop process to regularly collect and evaluate customer requirements/expectations information and prepare response accordingly.
  – Update Inventory Management Operating Strategy including regionalized logistics, lot grading, stockage objectives, sourcing rules, safety stock levels and reporting guidance, and a review of published policy and direction.
  – Perform a business system review and mapping analysis.
Sand charts
Item Data:
Cartridge, 5.56mm Ball
M855 10/Clip

Interchangeable = AB49
(5.56mm Ball Carbine Barrier), AA33 (Ctg, 5.56mm Ball M855 (commercial pk))

Production:
Lead Time = 13 mos
Open Line = Yes
** Unit Price = $0.25

* FY13-15 ending inventories are actual 30 Sep balances. FY16 and beyond inventory balances are derived by adding projected due-ins, projected procurements PB-17, and subtracting POM-18 TMR training and testing requirements.
** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
Cartridge, 5.56mm Clipped FX Blue Marking MK302 Mod 0
Interchangeable = NA

Production:
Lead Time = 13 mos.
Open Line = Yes
** Unit Price = $0.55

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** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
Cartridge, 5.56mm Clipped
FX Red Marking
MK303 Mod 0
Interchangeable = NA

Production:
Lead Time = 13 mos.
Open Line = Yes
** Unit Price = $0.55

* FY13-15 ending inventories are actual 30 Sep balances. FY16 and beyond inventory balances are derived by adding projected due-ins, projected procurements PB-17, and subtracting POM-18 TMR training and testing requirements.
** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
Cartridge, Caliber .50 4 Ball
MK322/1 Tracer
MK3221 Linked
Interchangeable = NA

Production:
Lead Time = 13 mos.
Open Line = No
** Unit Price = $3.82

* FY13-15 ending inventories are actual 30 Sep balances. FY16 and beyond inventory balances are derived by adding projected due-ins, projected procurements PB-17, and subtracting POM-18 TMR training and testing requirements.
** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
Cartridge, Caliber .50 4 Ball (MK322) Linked
Interchangeable = NA

Production:
Lead Time = 13 mos.
Open Line = Yes
** Unit Price = $4.14

* FY13-15 ending inventories are actual 30 Sep balances. FY16 and beyond inventory balances are derived by adding projected due-ins, projected procurements PB-17, and subtracting POM-18 TMR training and testing requirements.
** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
**Item Data:**
Cartridge, 9mm Blank Single Round, New
Interchangeable = NA

**Production:**
Lead Time = 13 mos.
Open Line = Yes
** Unit Price = $1.10

* FY13-15 ending inventories are actual 30 Sep balances. FY16 and beyond inventory balances are derived by adding projected due-ins, projected procurements PB-17, and subtracting POM-18 TMR training and testing requirements.
** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
Cartridge, 60mm Target Practice
Interchangeable = NA

Production:
Lead Time = 30 mos.
Open Line = No
** Unit Price = $185

* FY13-15 ending inventories are actual 30 Sep balances. FY16 and beyond inventory balances are derived by adding projected due-ins, projected procurements PB-17, and subtracting POM-18 TMR training and testing requirements.
** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
Cartridge, 40mm Practice (Day/Night)
MK281 MOD3 Linked

Interchangeable = BA12 (Ctg, 40mm Prac MK281 MOD 0 Linked)

Production:
Lead Time = 24 mos.
Open Line = No
** Unit Price = $35.50

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** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
Cartridge, 120mm Mortar WP M1103

Interchangeable = CA03, (120mm Smoke WP M929A1 w/MOF M734A1 Fuze)

Production:
Lead Time = 18 mos.
Open Line = No
** Unit Price = $7,173

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** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
Projectile,
120mm Mortar
PERM
Interchangeable = NA

Production:
Lead Time = 18 mos.
Open Line = No
** Unit Price = $29,527

FY13-15 ending inventories are actual 30 Sep balances. FY16 and beyond inventory balances are derived by adding projected due-ins, projected procurements PB-17, and subtracting POM-18 TMR training and testing requirements.
** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
**Item Data:**

 Projectile, 155mm HE (IMX-101) w/ Supp Charge

Interchangeable = D529 (Proj, 155mm Ext Rng M795)

**Production:**

Lead Time = 30 mos.
Open Line = Yes
** Unit Price = $1,208

* FY13-15 ending inventories are actual 30 Sep balances. FY16 and beyond inventory balances are derived by adding projected due-ins, projected procurements PB-17, and subtracting POM-18 TMR training and testing requirements.

** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
*Rocket, 83mm HEAA Practice MK7 Mod 0 (SMAW)*

Interchangeable = NA

Production:
*Lead Time = 24 mos.*
*Open Line = Yes*
*Unit Price = $6,322*

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** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
Charge, Demolition Sheet
0.166 Inch Thick
Interchangeable = NA

Production:
Lead Time = 20 mos.
Open Line = Yes
** Unit Price = $110

Note:
M980 is being used to cover the short-term inventory shortfall

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** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
Charge, Demolition Sheet
0.333 Inch Thick
Interchangeable = NA

Production:
Lead Time = 18 mos.
Open Line = Yes
** Unit Price = $270

* FY13-15 ending inventories are actual 30 Sep balances. FY16 and beyond inventory balances are derived by adding projected due-ins, projected procurements PB-17, and subtracting POM-18 TMR training and testing requirements.
** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.
Item Data:
Fuze, Precision Guidance Kit M1156
Interchangeable = NA

Production:
Lead Time = 13 mos.
Open Line = Yes
** Unit Price = $10,017

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** Unit Price is based on current FY15 Procurement/Replacement Cost Estimate unless specific Army pricing has been provided.