




Army Logistics Update

10 June 2009

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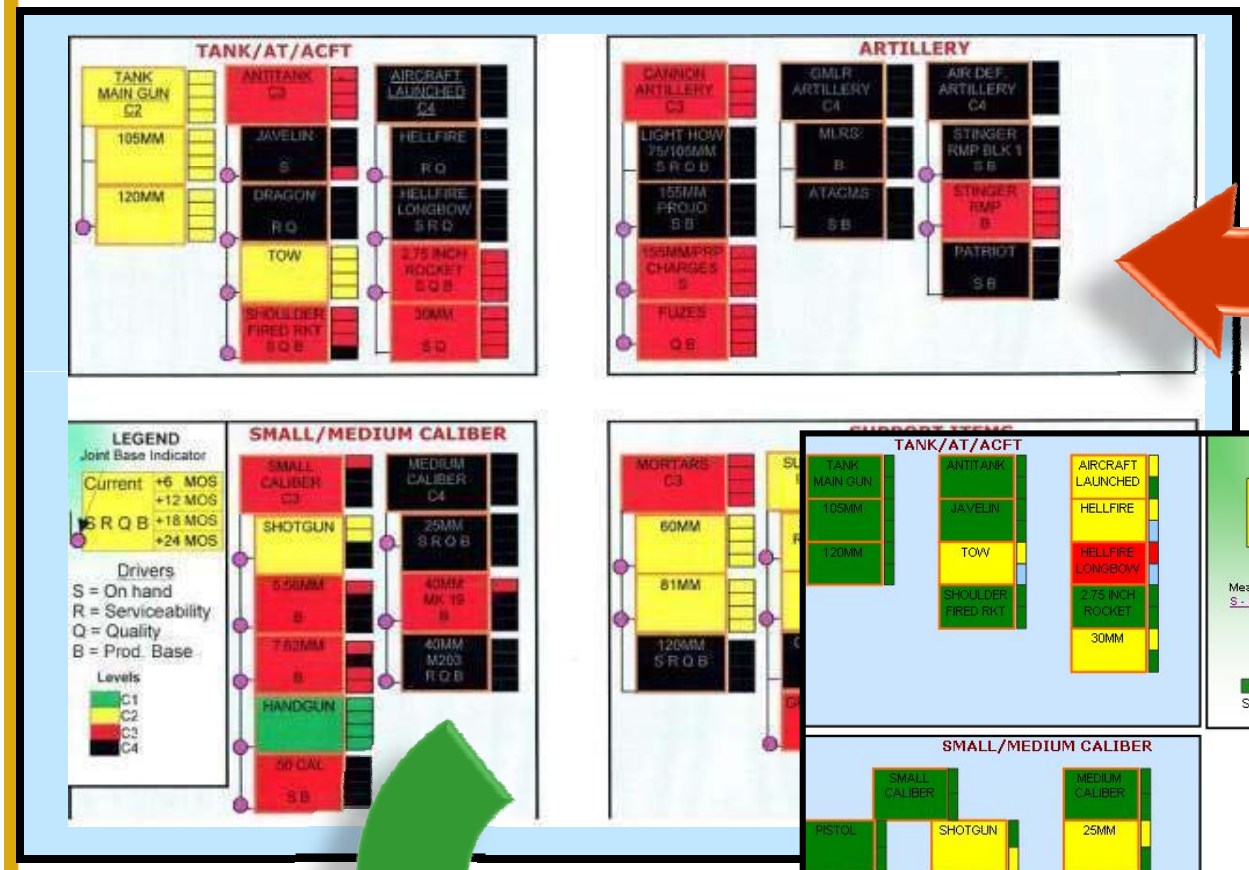
AMERICA'S ARMY: THE STRENGTH OF THE NATION™

Agenda

- Munitions Readiness
- Why Munitions Readiness?
- Ammo Funding
- Logistics Operations Supporting Southwest Asia: Munitions Support
- Precision Munitions: Excalibur and Guided MLRS
- Hellfire Missile Development
- OIF Drawdown Challenges, OEF Plus Up
- Diagnostics and Prognostics for High Value Critical Munitions
- Missile Sustainment Science &Technology
- Army Transformation Done Right
- Questions?
- Munitions: Way Ahead

Munitions Readiness Report



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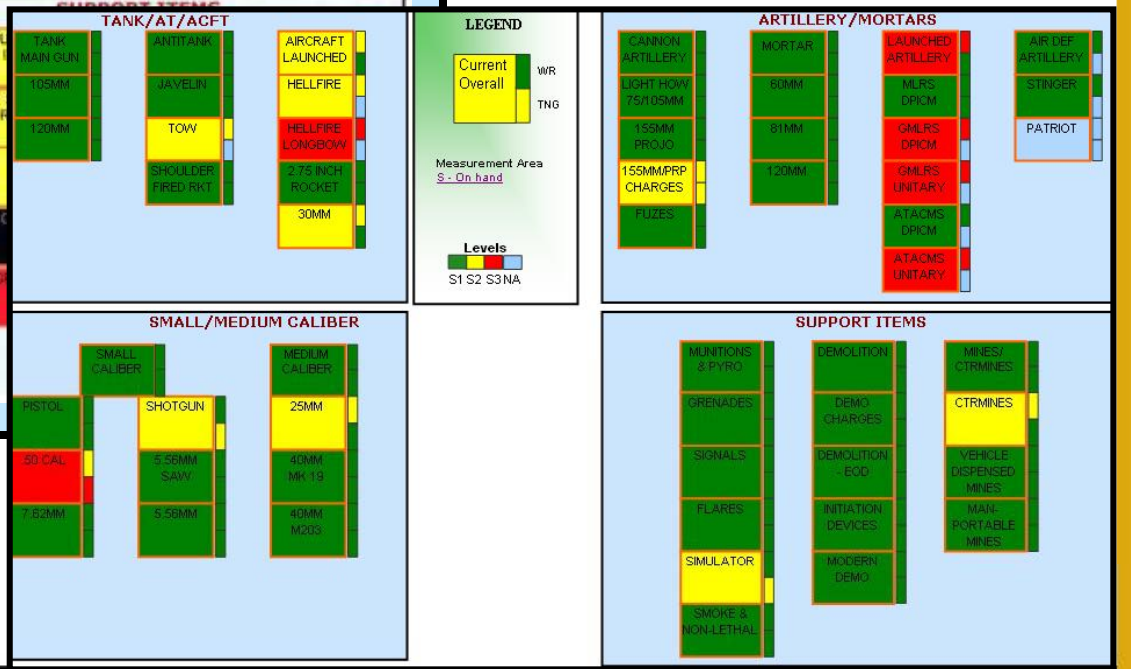


Today

Munitions Readiness

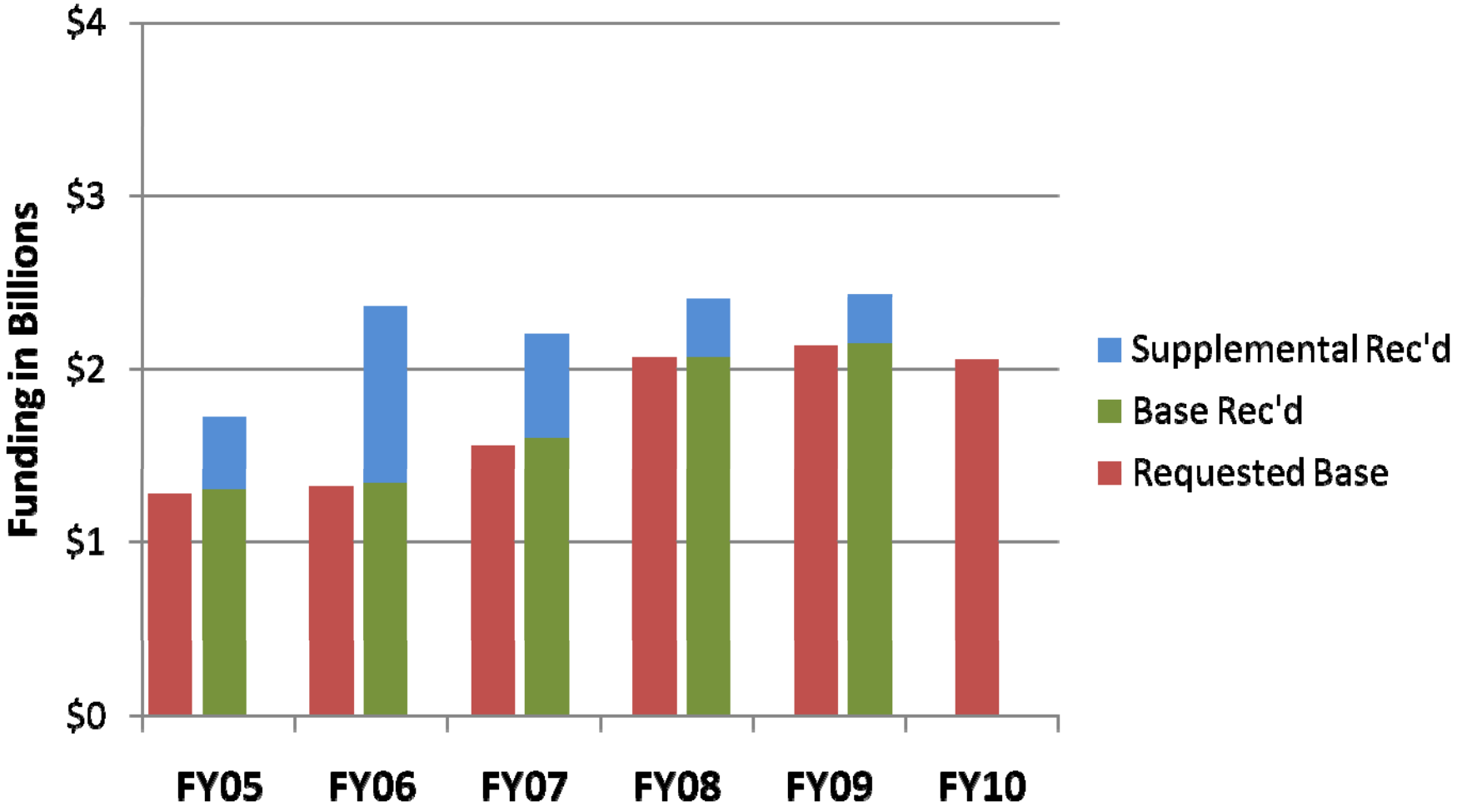
- Sustain Current Stockpile
- Reset Munitions
  - Repair
  - Repackage
  - Properly Locate
- Replace Munitions Consumed in Current Operations
- Demilitarize Excess, Obsolete and Unserviceable Munitions

Why Munitions Readiness?

Because not everyone has our standards:

Persistent Conflict,
Expeditionary
Deployment Cycles

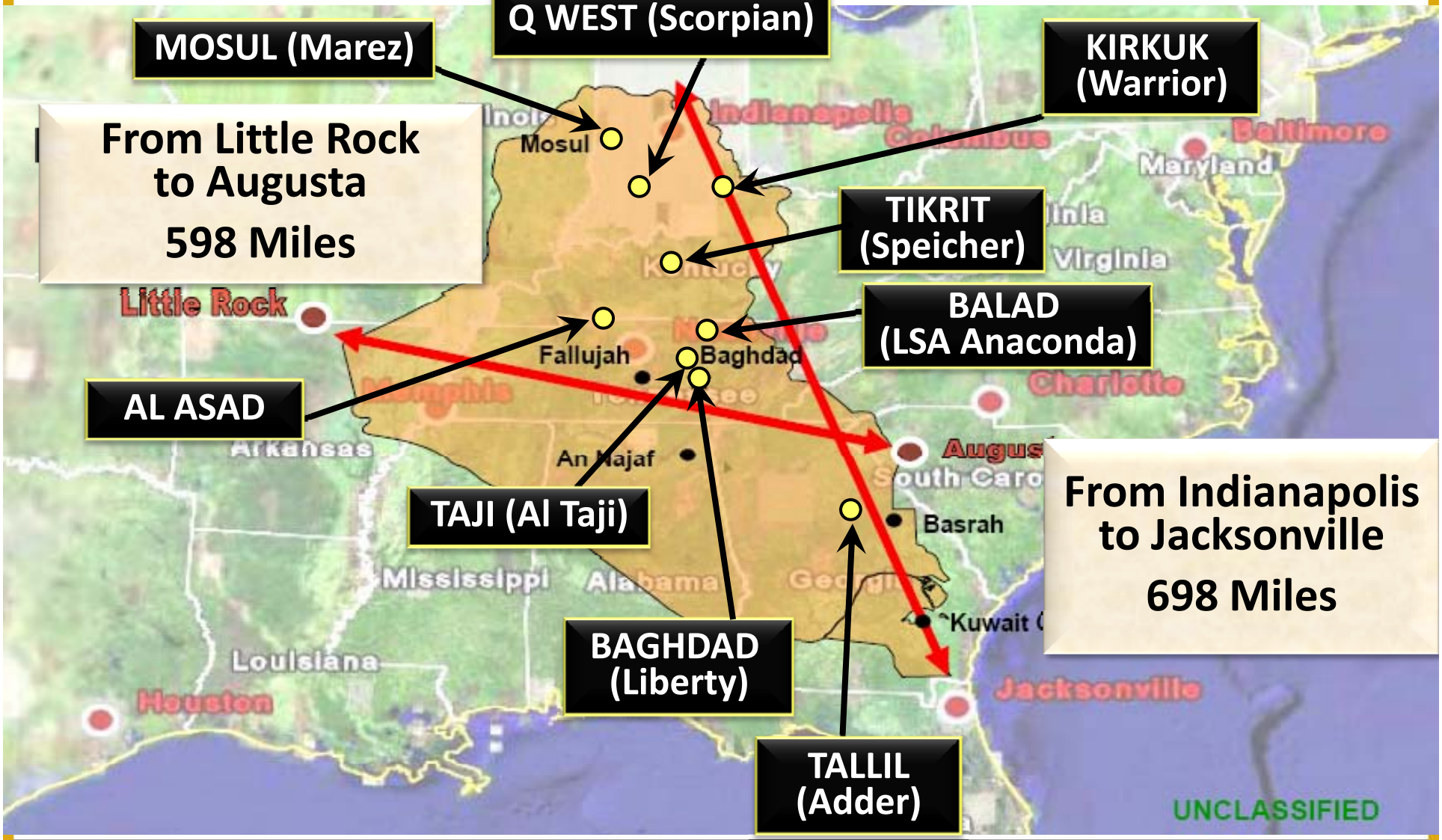
Army Ammunition Funding



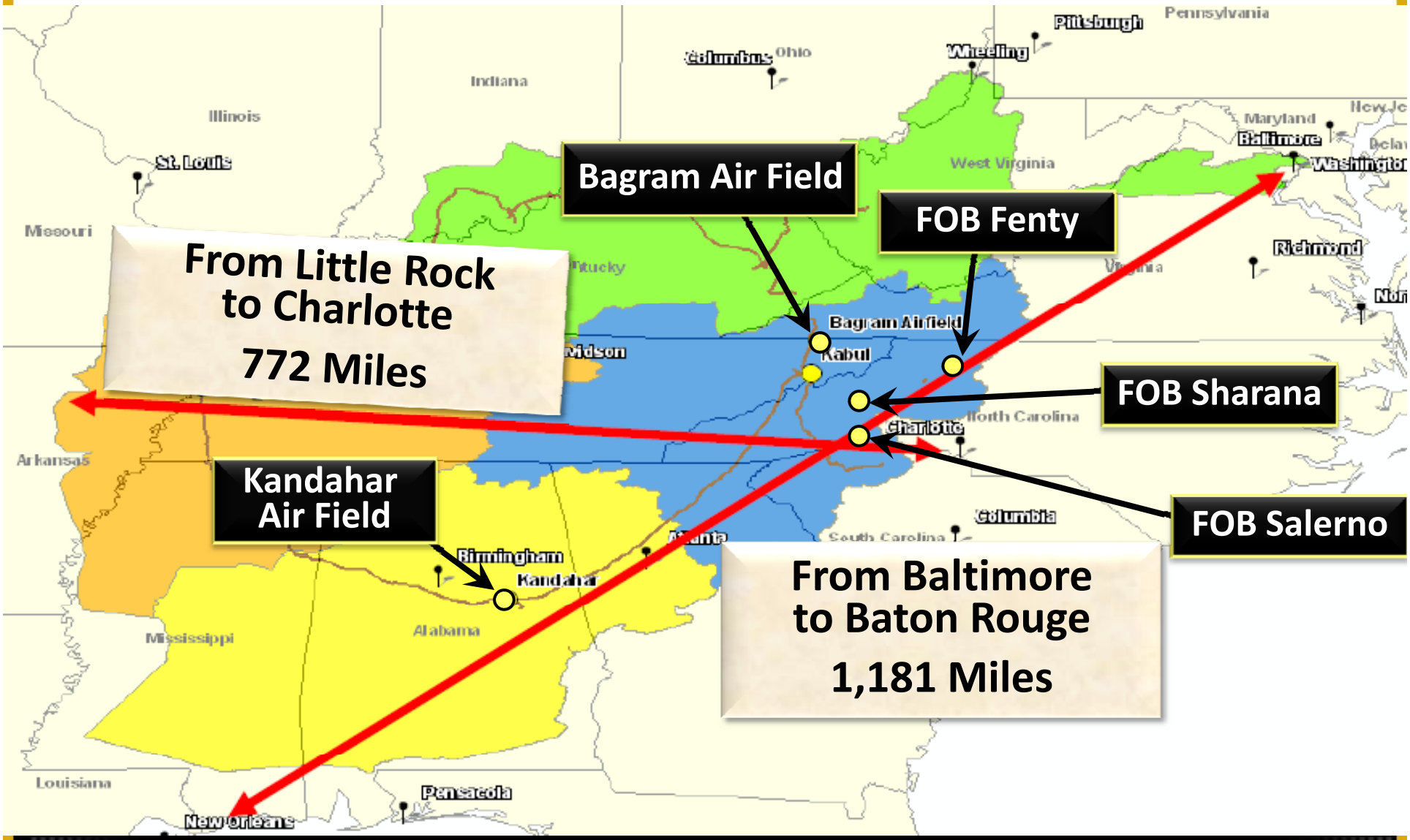
Numbers reflect only Army conventional ammo. Does not include missile funding

Logistics Operations Supporting Southwest Asia: Munitions Support

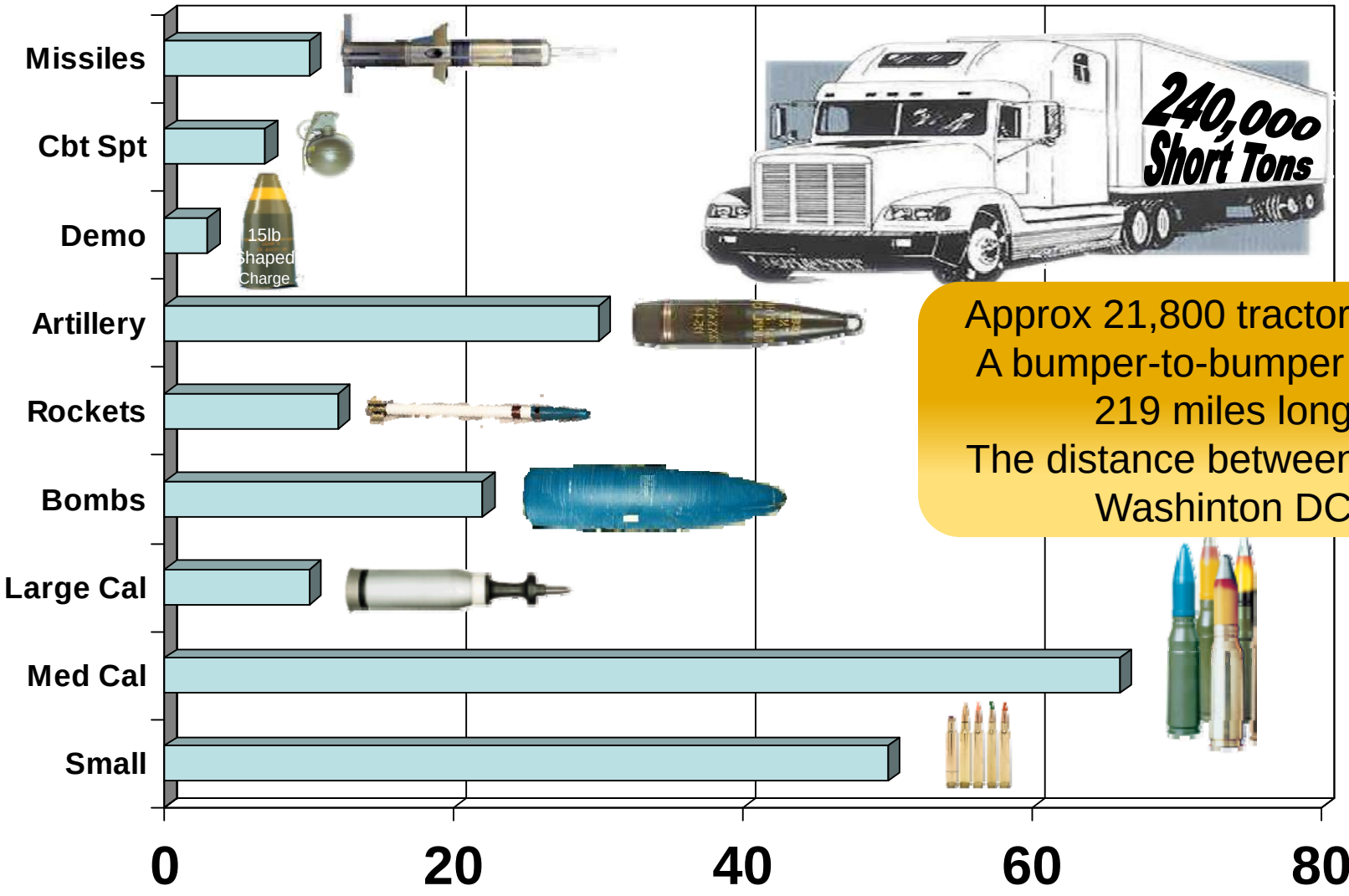
Ammunition Supply Points in Iraq



Ammunition Supply Points in Afghanistan



Munitions Provided to OEF/OIF: 2001 to 2009



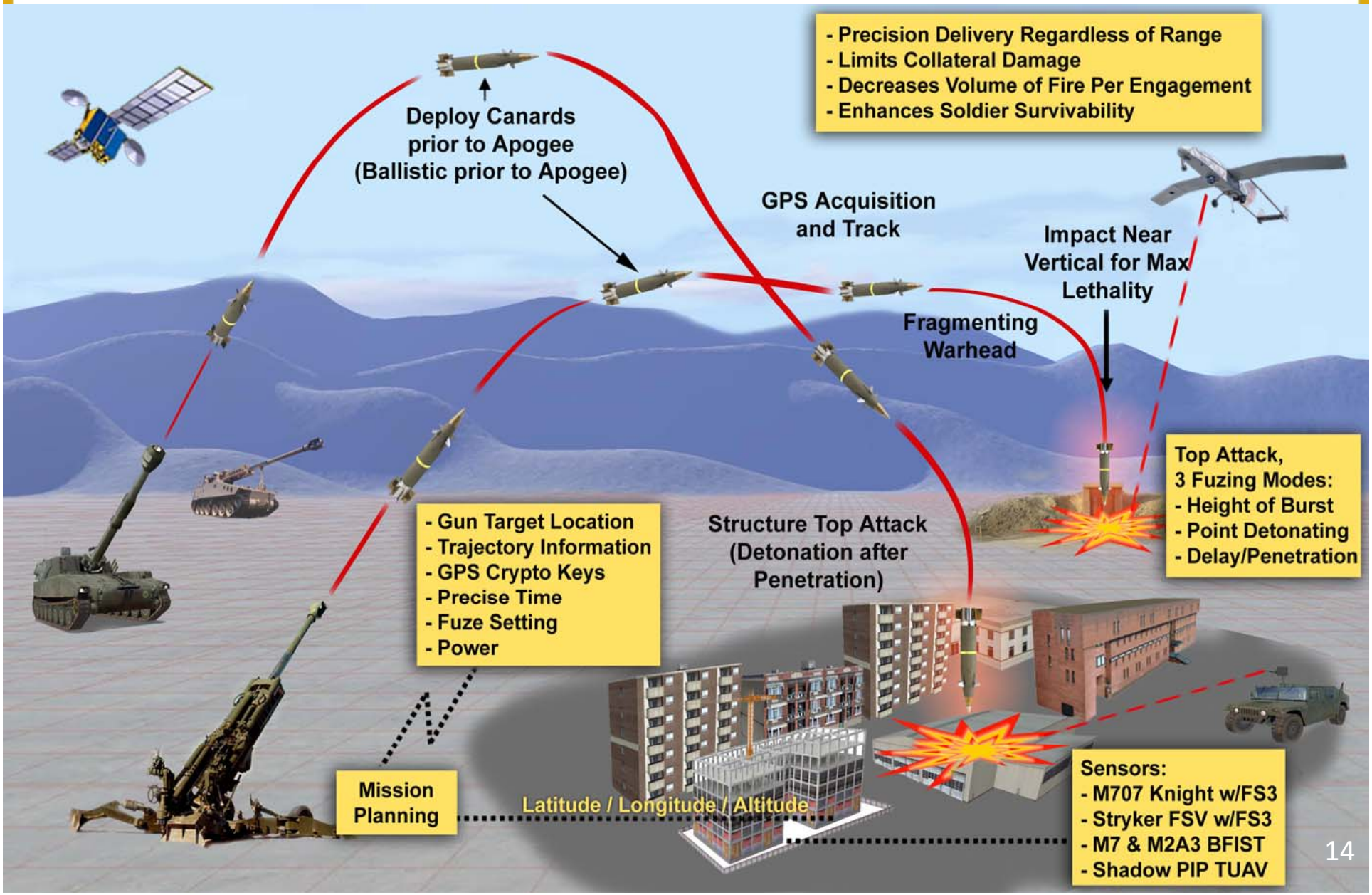
Approx 21,800 tractor trailers.
A bumper-to-bumper convoy
219 miles long.
The distance between NYC & Washinton DC!

Precision Munitions: Excalibur and Guided MLRS

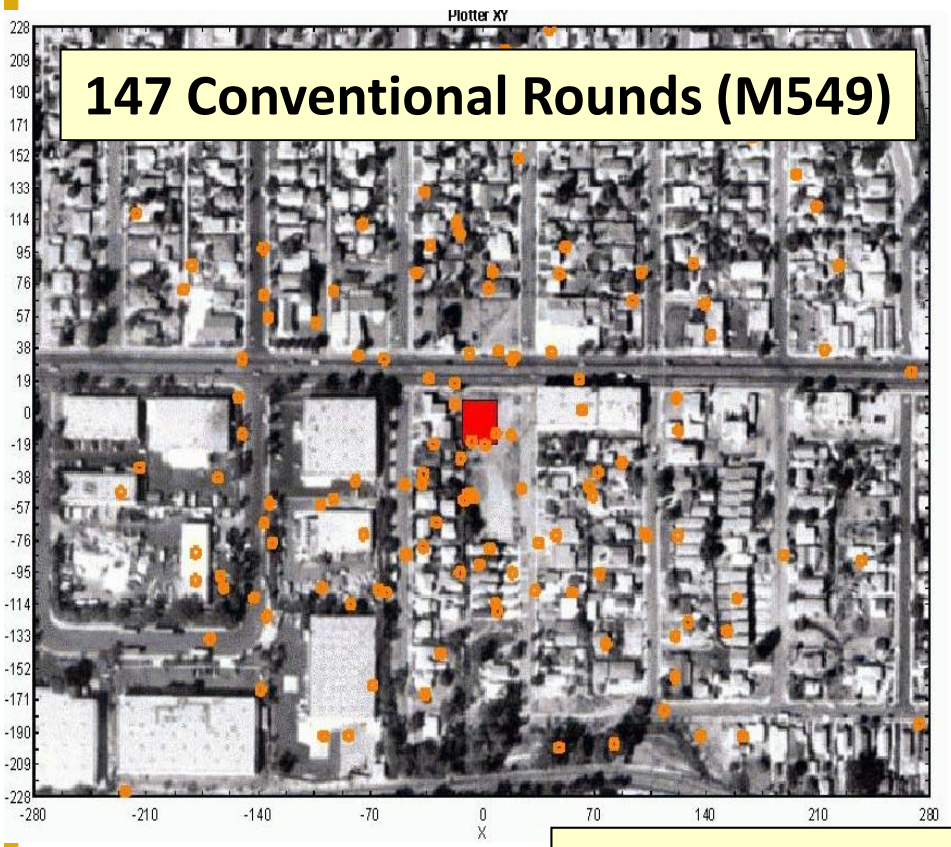
Why Precision Munitions?

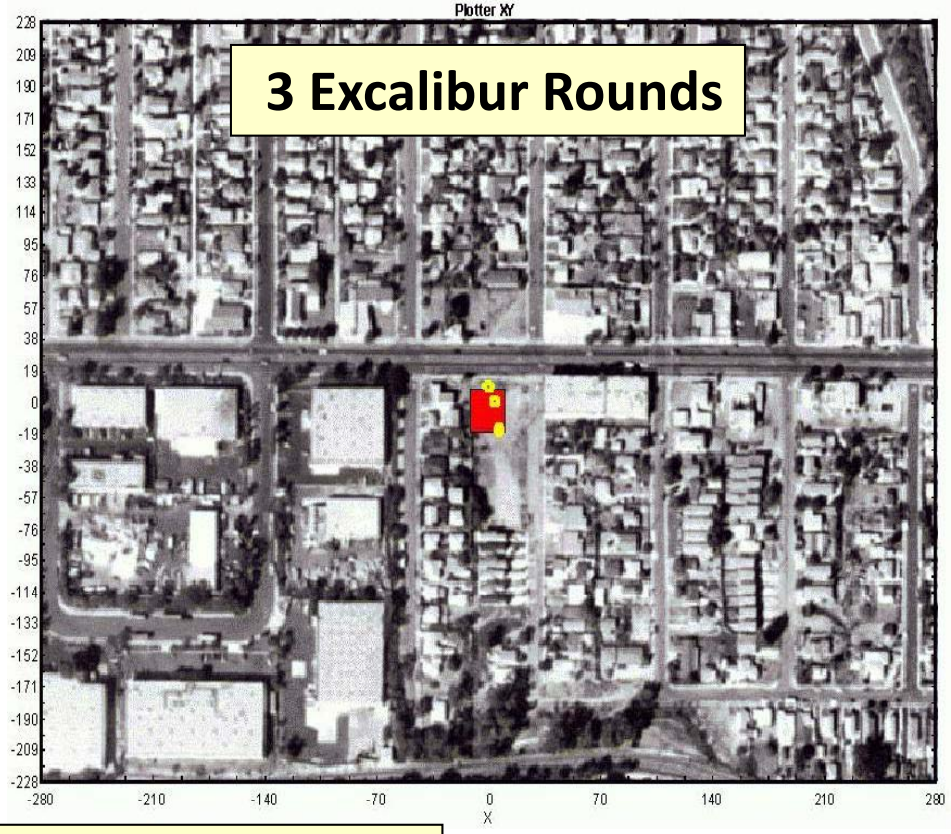
- Precision munitions improve lethality and tactical effectiveness
- Reduces collateral damage through precise targeting and warhead adaptation
- Reduces the logistical footprint
- Provides an answer to the Cluster Munitions capability gap

Excalibur Concept of Operations



Excalibur Accuracy





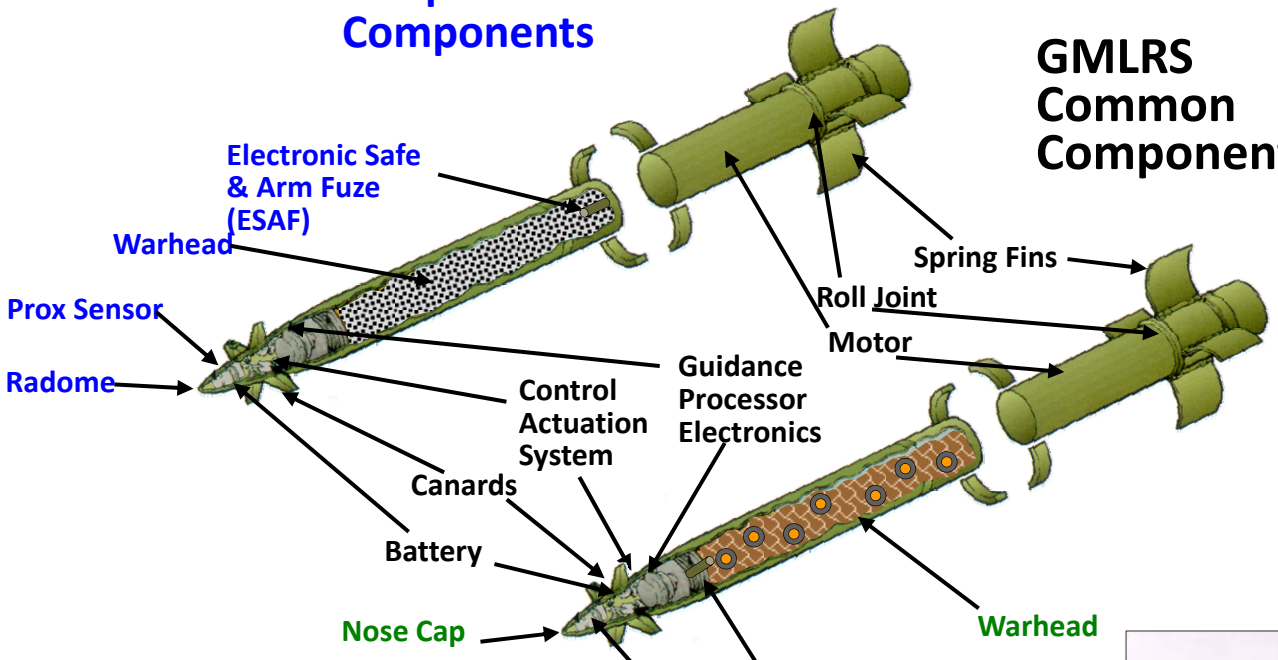
- Urban Command Post
- 20m X 20m Structure
- 10m Target Location Error (TLE)

Excalibur accuracy minimizes collateral damage and munitions required

Guided MLRS

Unitary Unique Components

GMLRS Common Components



Alternative Warhead Unique Components

Guided MLRS

- Precise targeting-reduces collateral damage
- Demonstrated 98% reliability, BDA shows high effectiveness
- Precision/effectiveness reduces the log tail – less munitions required to service targets
- First system to test Alternative Warhead concepts
  - Maintain area weapons capability
  - AW to comply with DOD Cluster Munitions policy

Hellfire Missile Development

HELLFIRE Warhead Coverage

Shaped Charge Warhead

Shaped Charge Warhead w/ Steel Frag Sleeve

Blast Frag Warhead w/ MAC

Integrated Blast Frag Sleeve (IBFS) Warhead

Main Battle Tanks (MBT)

Air Defense Systems

Commercial Vehicles (Pickups, SUV)

Small Boats

Patrol Craft & Ships

Heavy & Light Armored Vehicles

Personnel in Open

Transporter Erector Launcher

C2 Node

Buildings

Thin Skinned Vehicles

Artillery Systems

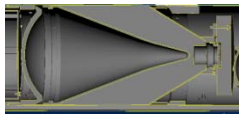
Bunkers & Caves

Range Of Targets

Pssk Against MBT

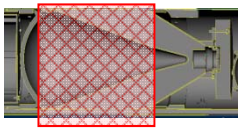
Pssi Brick over Block

Hellfire Warhead Development



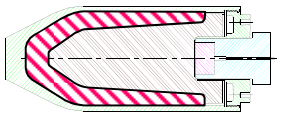
Anti-armor versions AGM-114 A, C, F, K, K-2, L, P, P++

Shaped Charge Warhead



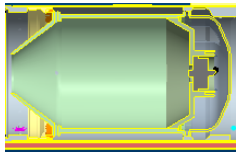
Anti- personnel versions AGM-114 F-A, K-2A, P-2A

Shaped Charge w/ Frag Sleeve



Blast version AGM 114M ,
Thermobaric version w/ Metal Augmentation Charge AGM-114N

Blast Fragmentation Warhead



Future All- purpose warhead for version AGM-114R IBFS

Integrated Blast Frag Sleeve Warhead

Other Topics

OIF Drawdown Challenges

OEF Plus Up

Diagnostics and Prognostics

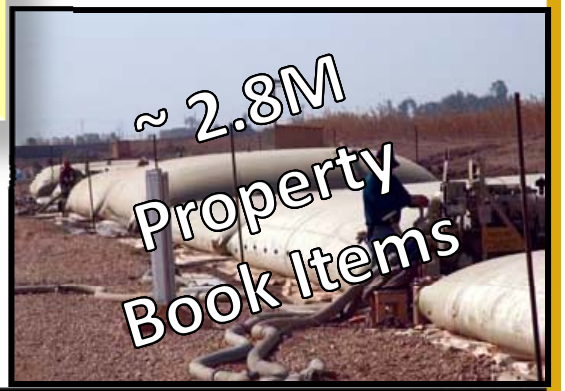
Missile Sustainment Science &Technology

OIF Drawdown Challenges

- 51 BCT Equivalents
- 143K US Military Personnel, Coalition and Civilians
- 147K Contractors
- 22 Supply Support Activities
- 240K Truckloads
- 8K Convoys
- 10K Truckloads Per Month
- 119 Shiploads
- 21K STONs of Supplies

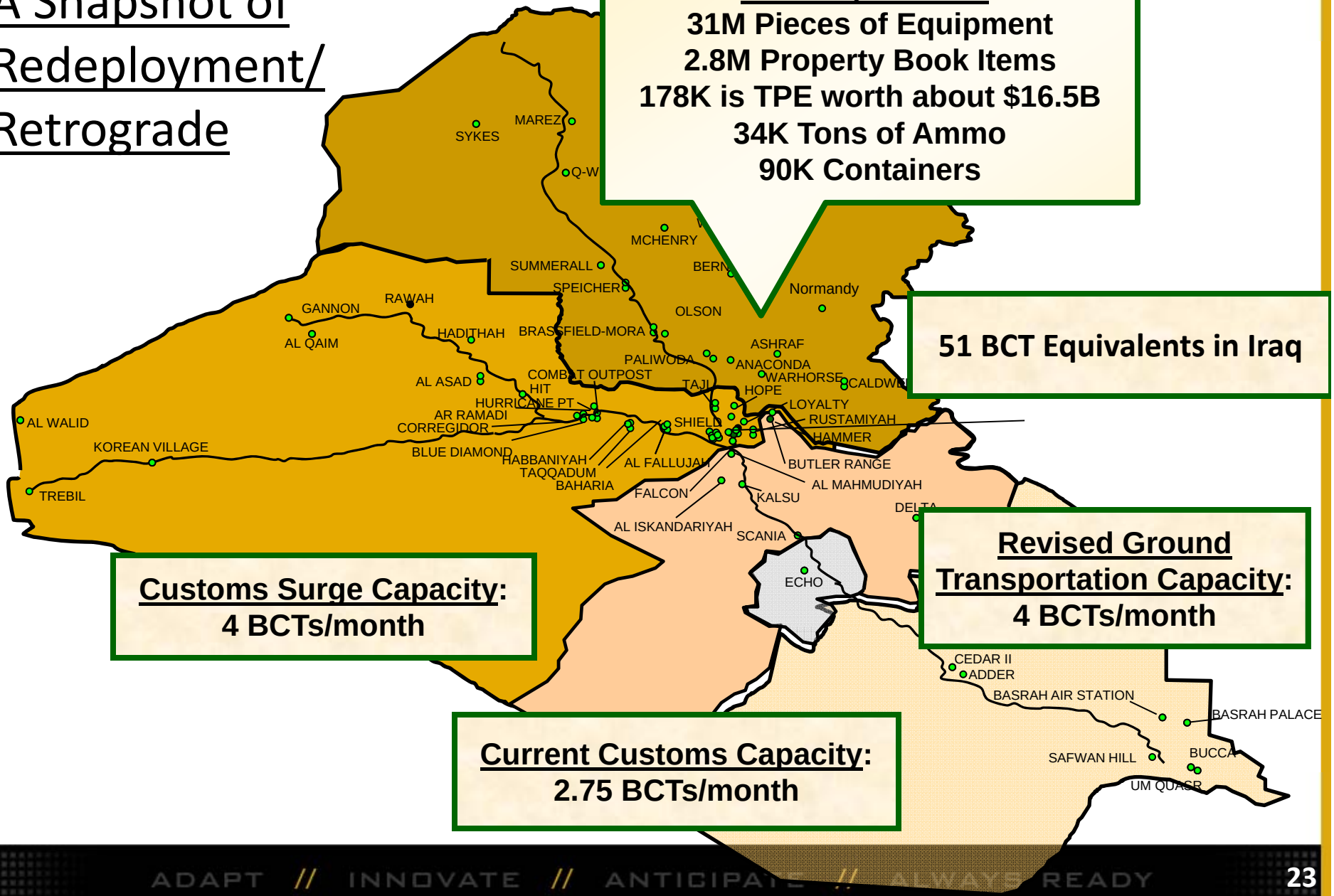
5-Step Process:

1-Consume
2-Redistribute
3-Transfer
4-Donate
5-DRMS Turn-In



A Snapshot of Redeployment/ Retrograde

The Requirement:
31M Pieces of Equipment
2.8M Property Book Items
178K is TPE worth about $16.5B
34K Tons of Ammo
90K Containers



51 BCT Equivalents in Iraq

Customs Surge Capacity:
4 BCTs/month

Revised Ground Transportation Capacity:
4 BCTs/month

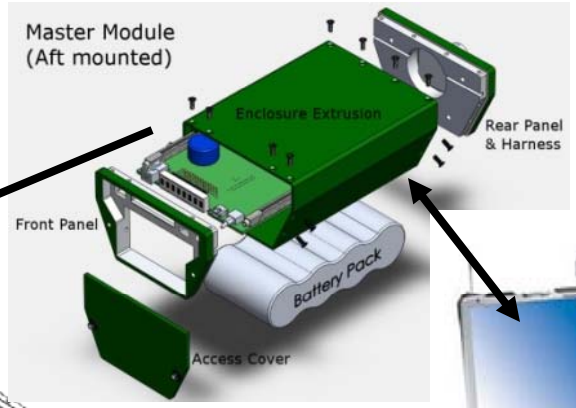
Current Customs Capacity:
2.75 BCTs/month

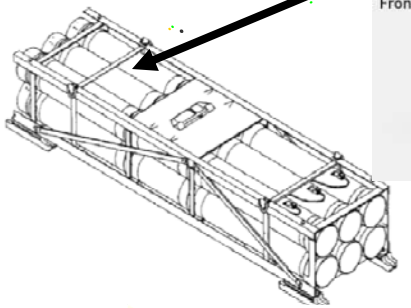
OEF Ramp-Up

- All Class V resupply is by air (ALOC)

- Environment requires munitions that can fire at higher angles
  - Excalibur 155 – working and used
  - 105mm Howitzer
  - 120mm Mortar
  - Hellfire Conversion (Blast Frag) and 30mm HE for Apache

Diagnostics and Prognostics for High Value Critical Munitions





Hellfire Captive Carry Health Monitor

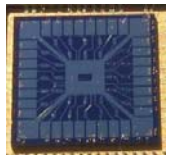
- Captive Carry and Power-On Hours
- Battery Usage, Temperature, Humidity

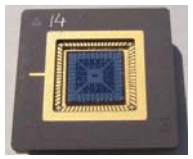
Guided Multiple Launch Rocket System Transportation and Handling Monitoring System

- 300 Hours Transport Vibration
- Temperature, Humidity
- Universal Prognostic/Diagnostic Interrogator

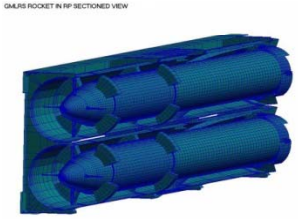
Continuous monitoring provides an accurate history of the environmental conditions the ammunition has been exposed to

Missile Sustainment Science &Technology

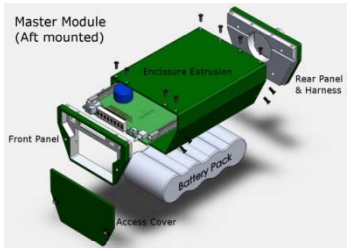




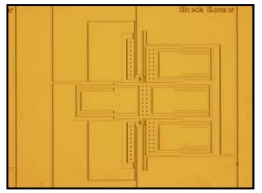
NASA Ames - Chemical Sensor (1cm x 1cm)



WDI – GMLRS Prognostics Studies

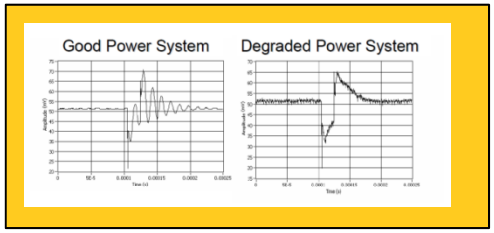


GMLRS Health Monitor



Morgan Stanley Assoc. - No-power shock MEMS, no-power humidity MEMS and module prototype

WDI- Min Smoke Propellant Aging Studies

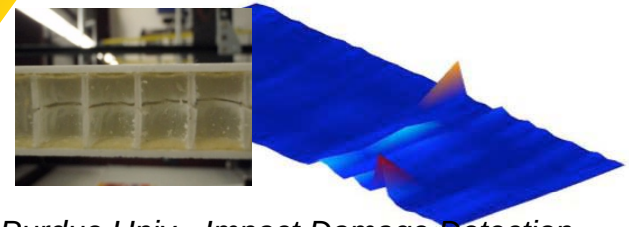


Ridgetop Group – Power Supply Prognostics

RTTC - HELLFIRE II Prognostics Studies

AATD - Flight Testing of HF Design Prototypes

Increment 1 HELLFIRE Health Monitor



Purdue Univ - Impact Damage Detection in Rocket Motor Composites

Army Transformation Done Right

Vision

- A fundamental change in how the Army does business
- Apply proven business principles to challenges faced by the Army

Desired Effects

- Maximizing return on taxpayer's dollar
- A culture that incentivizes good stewardship of Army resources
- A culture of continuous improvement

Payoff is an Army which *effectively and efficiently provides the necessary forces and capabilities* to the Combatant Commanders in support of National Security and Defense Strategies

Questions?

Precision Munitions: Way Ahead

- Army continues to develop precision munitions capabilities
- Scalable warheads/lethality; produce lethal effects while reducing collateral damage
- Modernize ammunition through product improvements, produce effective munitions that do not leave the "aftermath" of war behind
- Closing the capability gap caused by the policy on Cluster Munitions
- Address the increasing demilitarization stockpile

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SGT Leo McWatt

SGM John Anderson

CSM Ted Helbing

CSM Tomas Erazo-Ramos

CSM David Stewart