



# *Missiles and Rockets Overview*

**NDIA Armaments Technology  
Fire Power Forum**

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**Recipients of the 2008  
William J. Perry Award**



# *Topics*



- Precision Fires products and performance
- Rocket and missile industrial base
- Contemplated capabilities
- GMLRS with Self Destruct Fuze

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# PFRMS Systems at War



- All systems are supporting the Global War on Terrorism
- Currently supporting Operation Iraqi Freedom and Operation Enduring Freedom
- Performance is above Army Standards
- Launchers returning in excellent condition requiring only routine & minimal maintenance



**M270A1**  
98% Readiness Rate

**HIMARS**  
99% Readiness Rate

**GMLRS Unitary**  
747 Rockets Fired  
98% Reliability

**ATACMS**  
537 Missiles Fired  
98% Reliability



[Play Video 1](#)

[Play Video 2](#)



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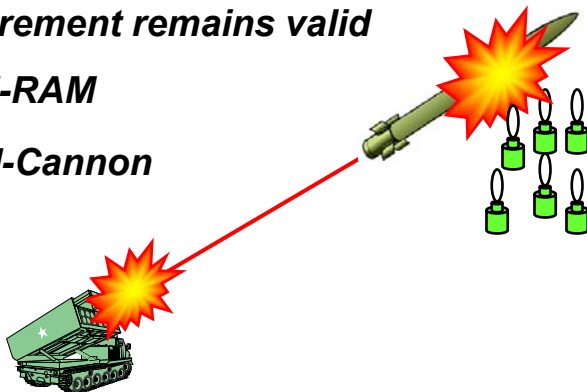
# GMLRS with Bulova Self Destruct Fuze



**Q: SDF needed by the user?**

**A: Requirement remains valid**

- ✓ TCM-RAM
- ✓ TCM-Cannon

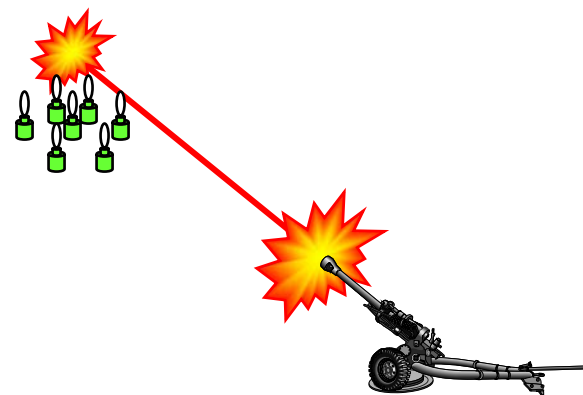


## GMLRS

- Less than 1% hazardous duds
- Assumptions:
- No degradation of primary mode (95% reliability)
  - SD mode operates as well as in artillery (95% reliability)

## XM864

- 97% Primary Mode Reliability
- 95% Self Destruct Mode Reliability
- 99.85% Overall Fuze Reliability



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**SDF Update:**

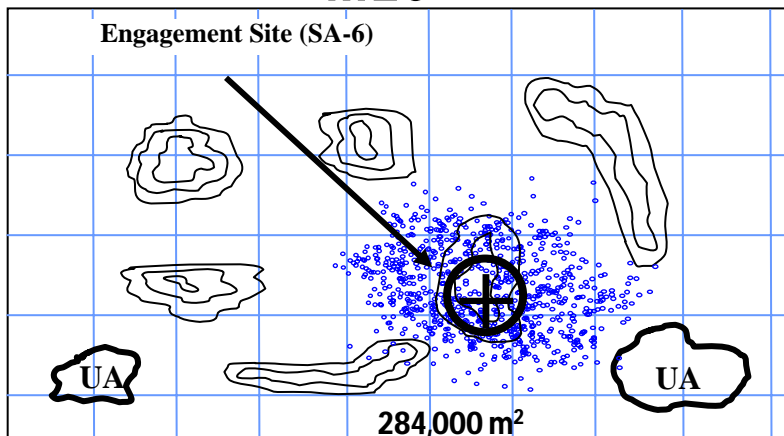
# **GMLRS DPICM w/SDF Reduced UXO**

## **Engagement Example**



### **Comparison Of M26 And GMLRS M30 DPICM w/SDF Engaging SAM Missile Site**

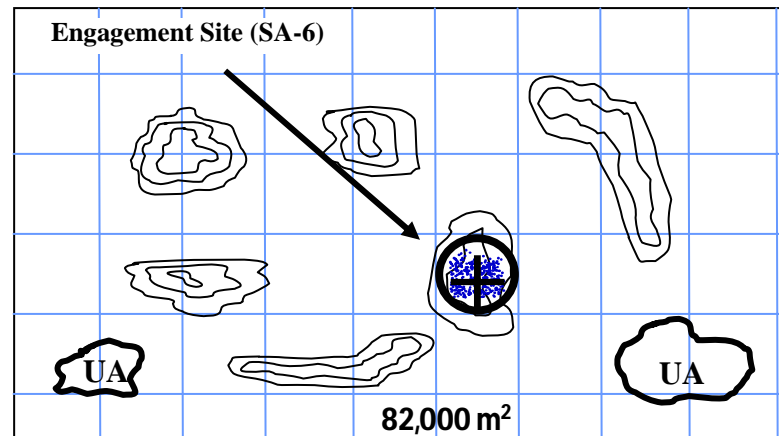
**M26**



- 75 Rockets Required To Destroy Target
- 644 Grenades Per Rocket
- At 5% Dud Rate, Over 2400 Unexploded Grenades Throughout Engagement Site
- Grenades Spread Over 12 Grid Squares

**VS**

**M30 w/SDF**



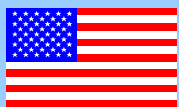
- 15 Rockets Required To Destroy Target
- 404 Grenades Per Rocket
- At <1% Dud Rate, Less than 60 Unexploded Grenades Remain At Engagement Site
- All Grenades Contained Within 1 Grid Square

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# MLRS Worldwide

## MOU Partners



United States



United Kingdom



France



Germany



Italy



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\* Potential Customer

Distribution A: Approved for Public Release

RS33-08060501-6 5 Jun 08



# MLRS Worldwide



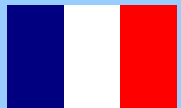
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# Terminated Army Missile Programs



AV MANEUVER AD  
FIRE SUPPORT

~~STINGER~~



~~JAVELIN P31~~



~~LOSAT~~



~~CKEM~~



~~Common Missile~~

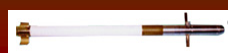


~~APKWS~~



JAGM

GMLRS



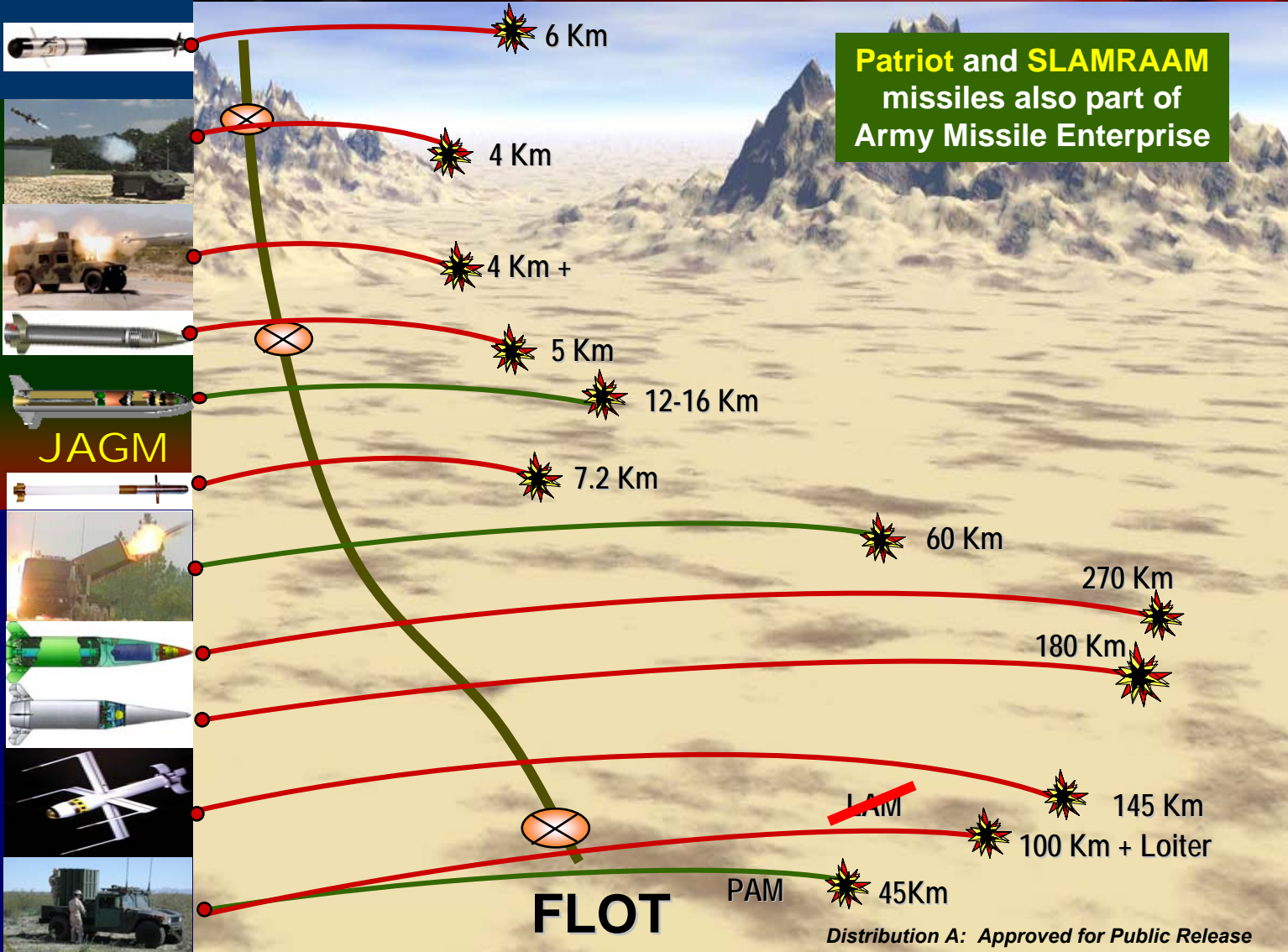
~~ATACMS Unitary/ Penetrator~~



~~BAT P31~~



NLOS-LS



Distribution A: Approved for Public Release

THE SPECTRUM OF THREATS REQUIRES A MIX OF MISSILE SYSTEM CAPABILITIES





# *Contemplated Capabilities*



- Precision, precision, precision
- Elimination of UXOs
- Selectable warheads
- In-flight redirect
- Programmable trajectory
- Reduced signature
- Demil

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# *Suggestions*



- PM / TCM relationship and requirements
- Get plugged into G-3 Ammo
- ASA(ALT)
- OSD
- Media – tell your story

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*...we never forget our real customer...*



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