



Guided Projectiles
for the
Joint Force Commander

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Field Artillery Relevant and Ready



Must Deliver Precision Effects..

Capability to rapidly and accurately locate and attack targets with the required operational responsiveness matched to desired effects (lethal and non-lethal) and the greatest efficiency.

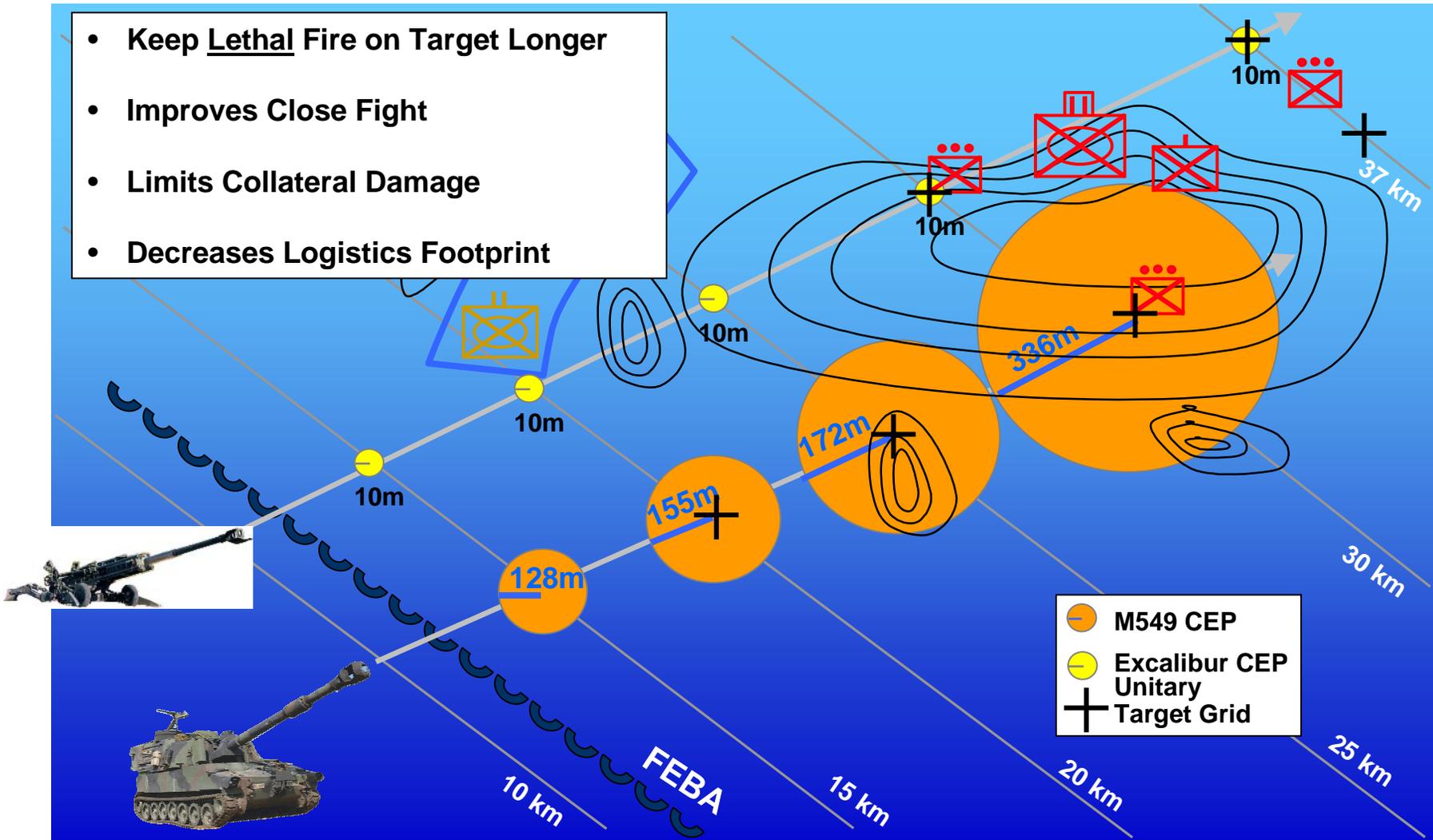


Create the
Thunder

Today and Tomorrow

Artillery & Accuracy

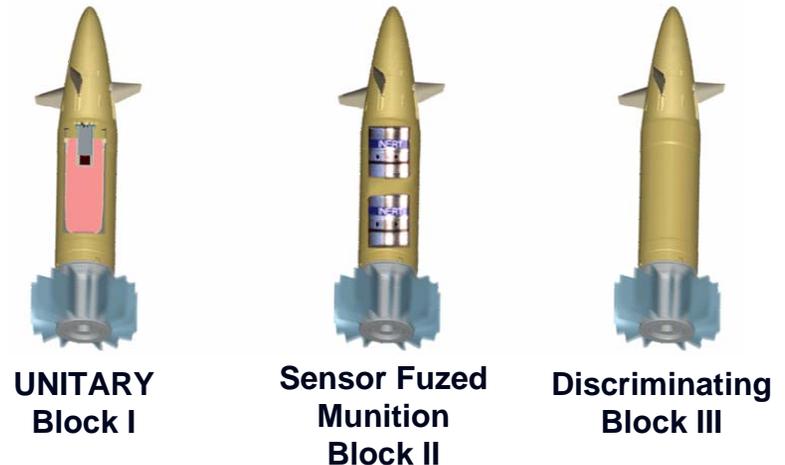
- Keep Lethal Fire on Target Longer
- Improves Close Fight
- Limits Collateral Damage
- Decreases Logistics Footprint



Excalibur Program Overview Raytheon

- Joint international program with Kingdom of Sweden
- Accelerated for Fielding in FY06
- Gun Hardened GPS/INS Guidance – to 18 kgs
- 155 mm round compatible with: Paladin, JLW155, FCS NLOS-C and KOS 155 platforms
- Direct fit for Navy DD-X Medium Range Requirement (MRLAP)
- Reliability Growth & Lean Design Planned/Funded
- Modular Design -- Supports Growth

The Excalibur Family



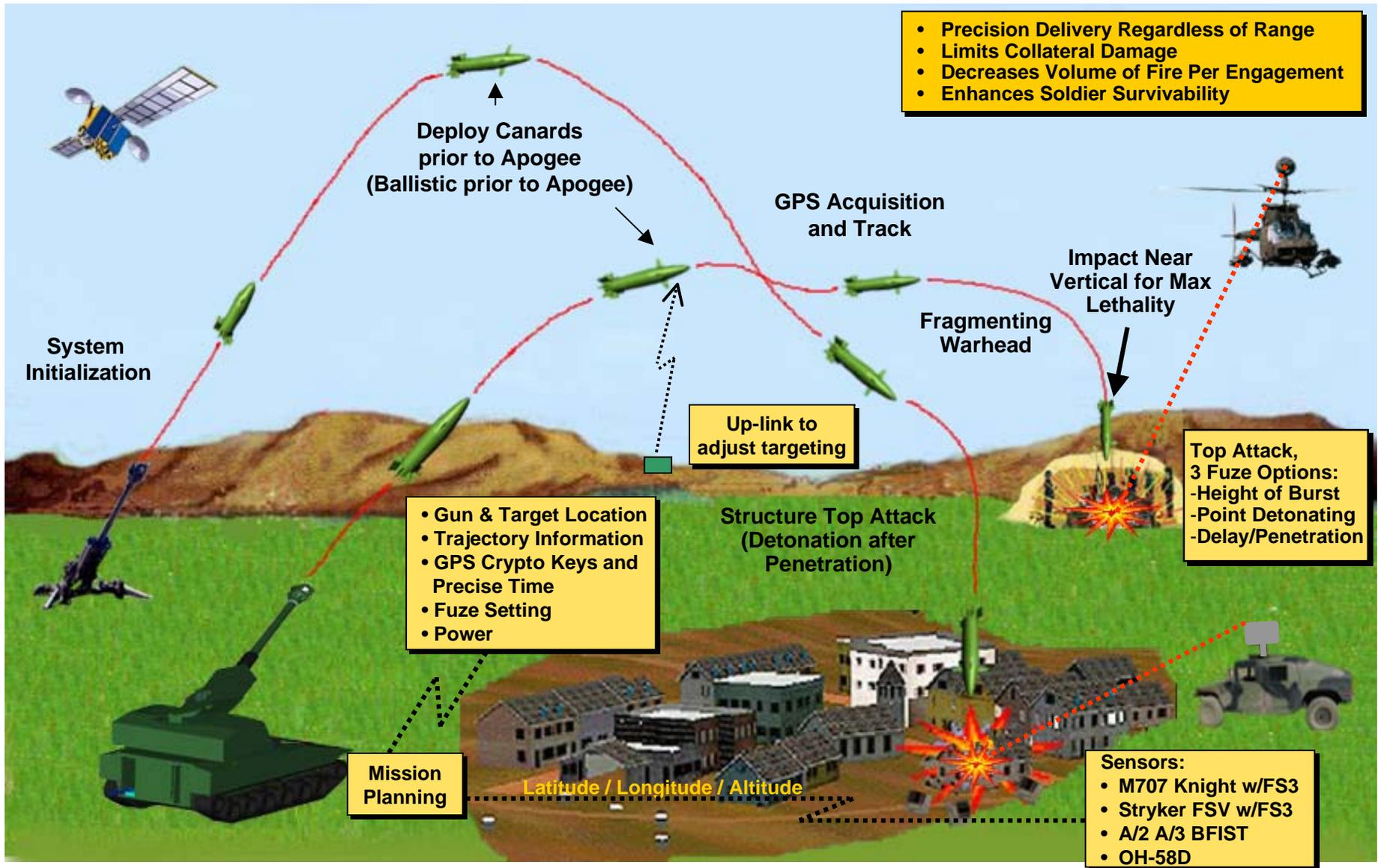
Excalibur System Attributes

Range:	41 km
Length:	.987 m
Weight:	105.5 lb
CEP:	~6 m

Excalibur Provides Precision Effects For Artillery

Operations

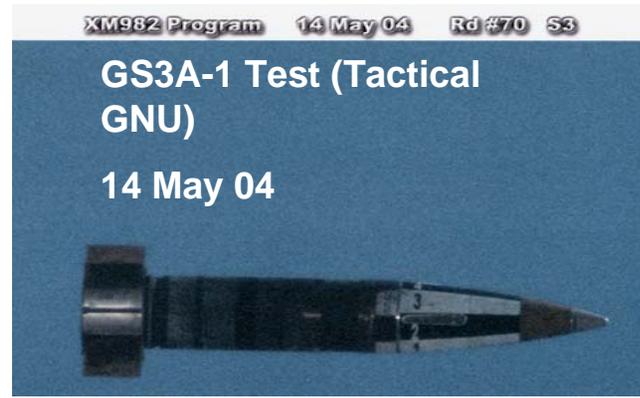
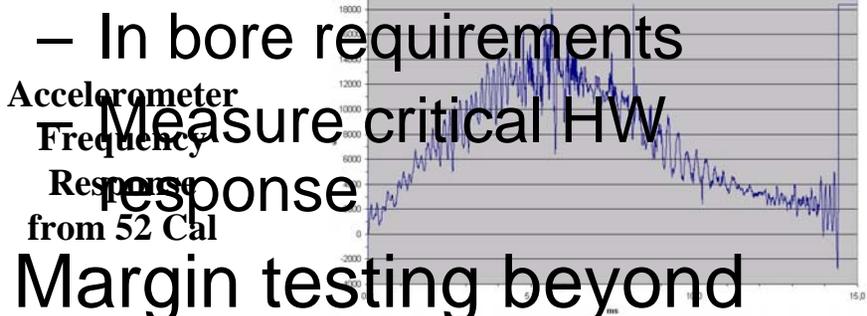
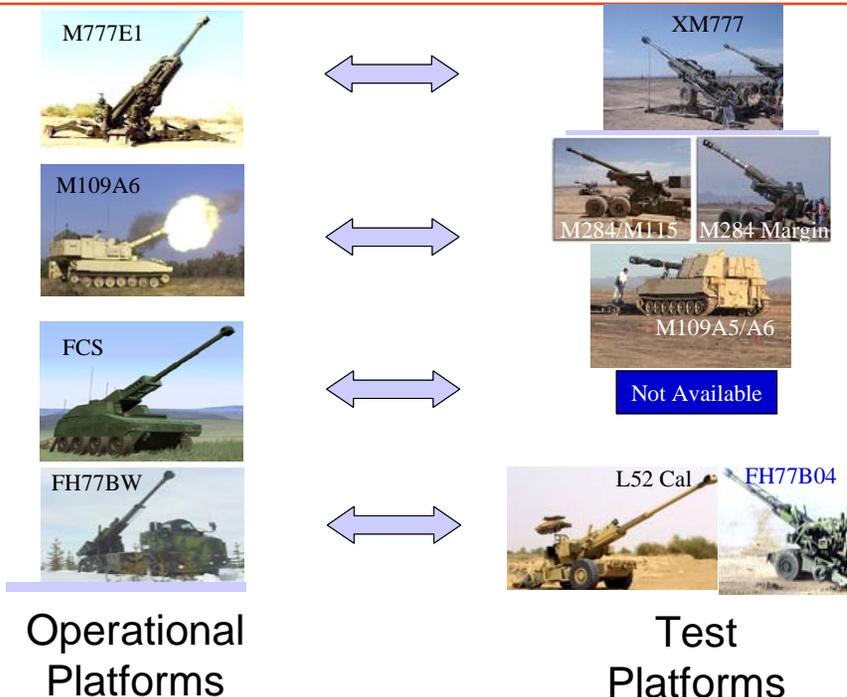
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Platform Integration & Characterization

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- Test Program Aligned With Operational Fielding Needs
 - M777 for Early Fielding
 - M109A6
 - Swedish Requirements
- Instrumented test firings at multiple charge zones & multiple platforms

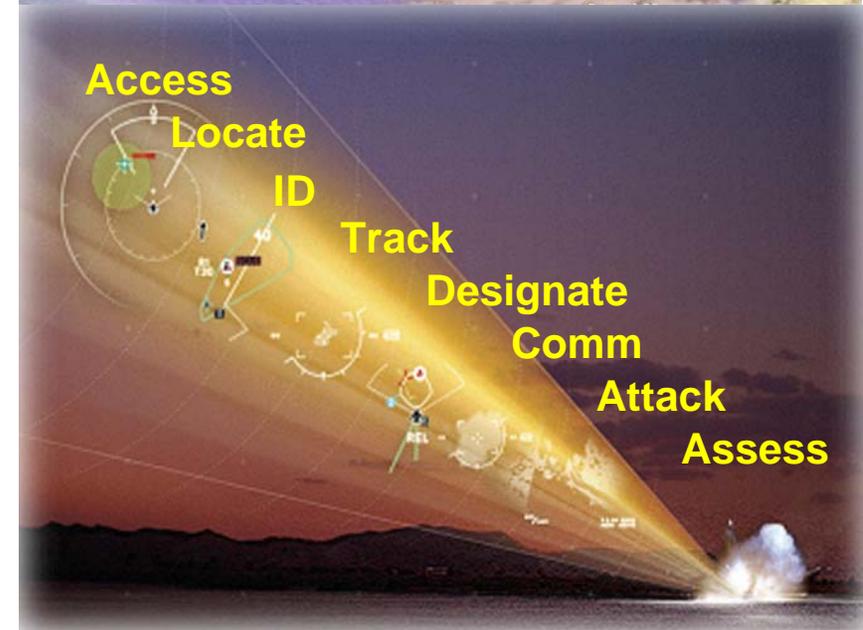


Robust Design Across Multiple Platforms

reliability objectives are

Joint Networked Fires Capability (JNFC) Roadmap

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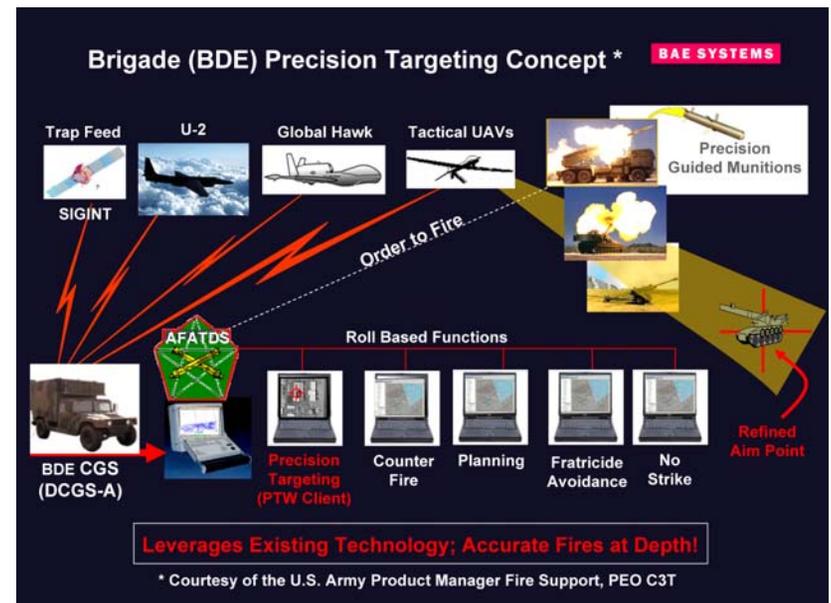


“Joint Fires” →

- Joint Time Sensitive Targeting (TST)
- Joint Interdiction
- Joint Close Air Support (CAS)
- Naval Surface Fire Support
- Call-for-Fire
- Joint Suppression of Enemy Air Defenses (SEAD).

The Targeting Challenge.. Raytheon

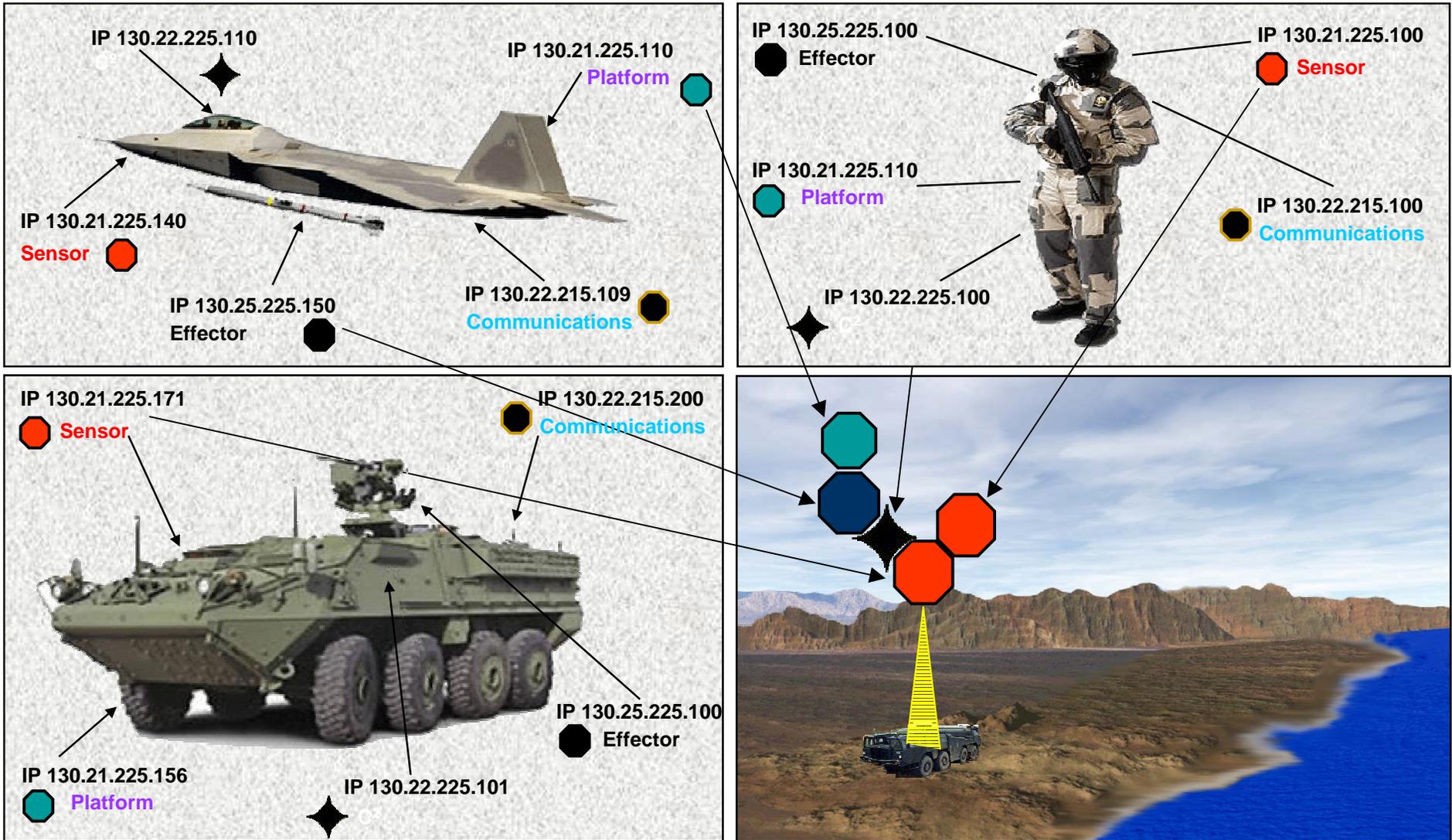
- Improvements to organic sensors:
 - LLDR: 80m to 5m
 - Shadow TUAV: .. to 10m...
- AFATDS Fire Control Enhancements
 - Precision sheafing
 - Target mensuration
 - Integration of “AF/Navy” tools such as Precision Targeting Workstation (PTW)....
- Leveraging Network Centric Resources
 - FCS Net
 - Distributed Common Ground System (DCGS)
 - Utilization of Joint ISR assets...



Army Will Benefit From AF/Navy Targeting “Lessons Learned”

Net Centric Operations – Tying It All Together

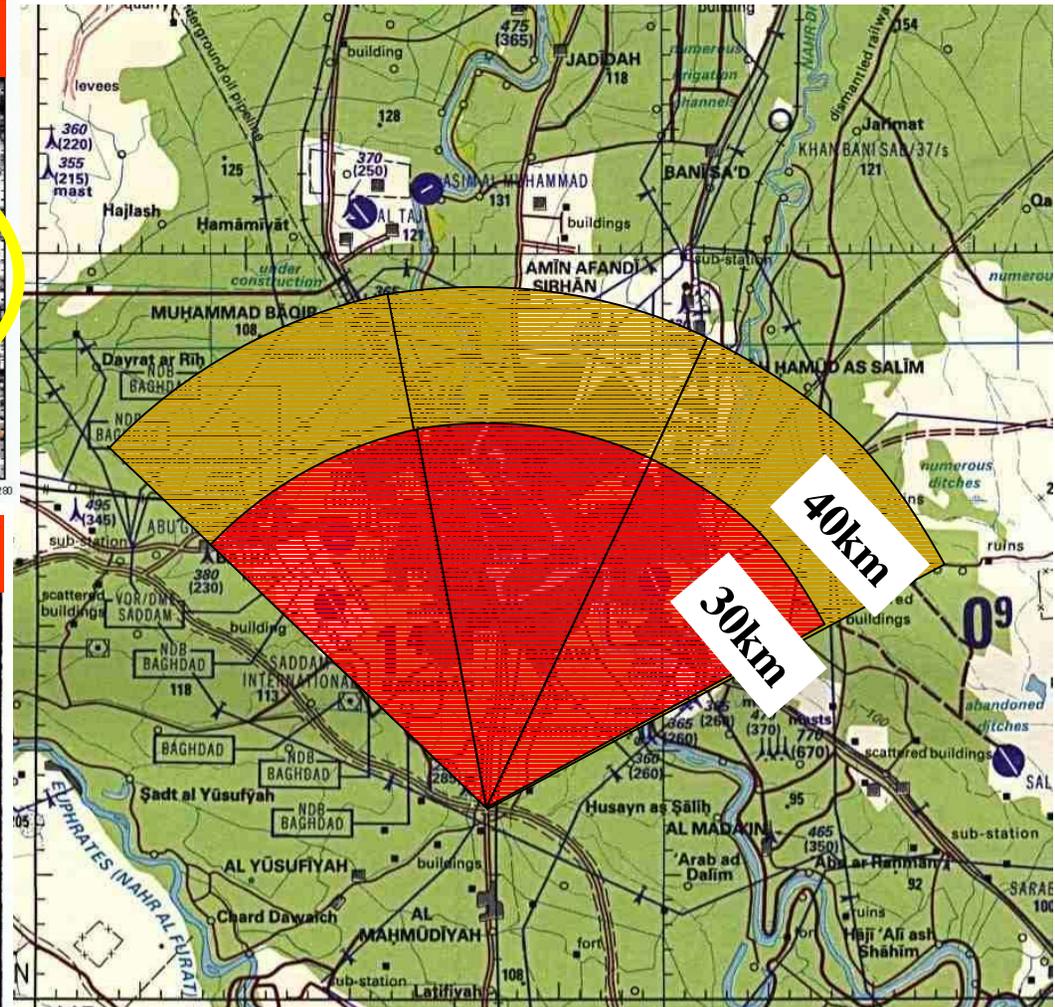
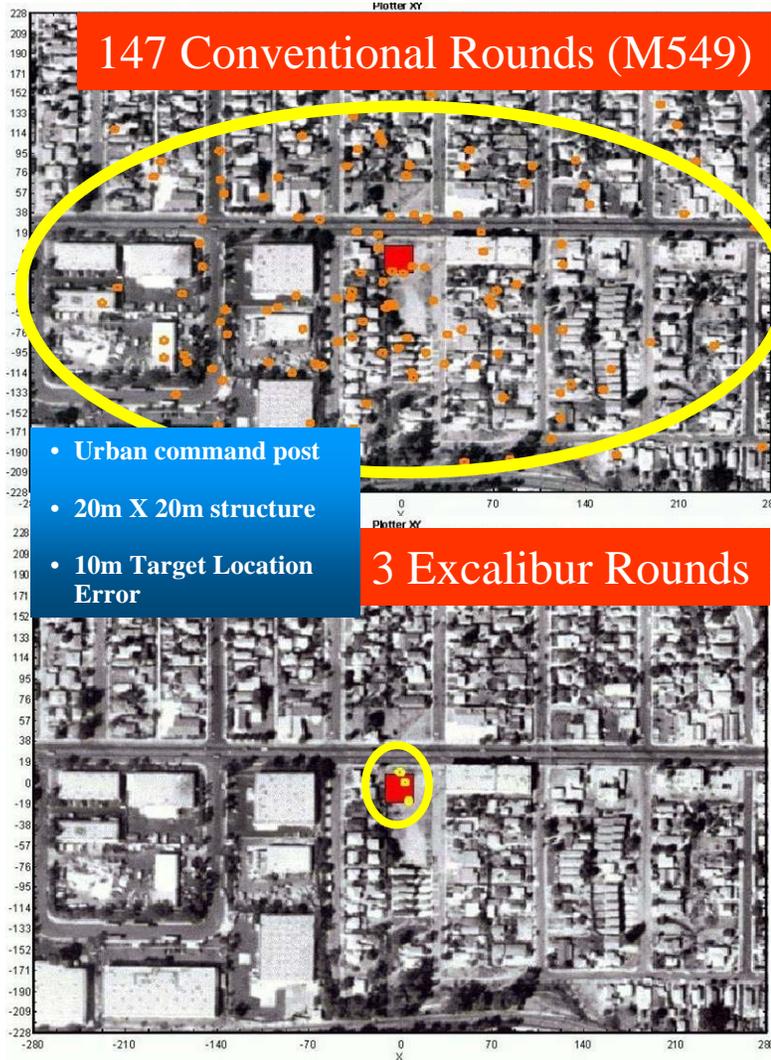
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Internet Analogy – every weapon, sensor, platform has an IP address

Excalibur Capability Required Today

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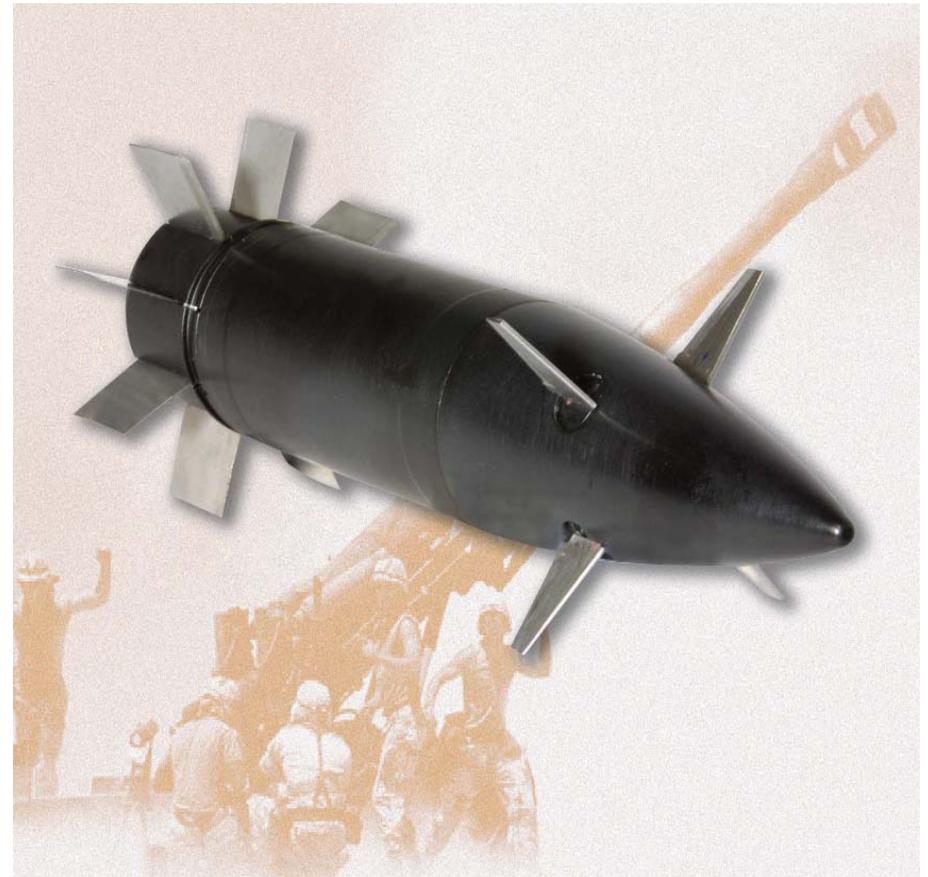


Excalibur Provides Rapid, Lethal Effects for the Urban/Close Fight

Summary

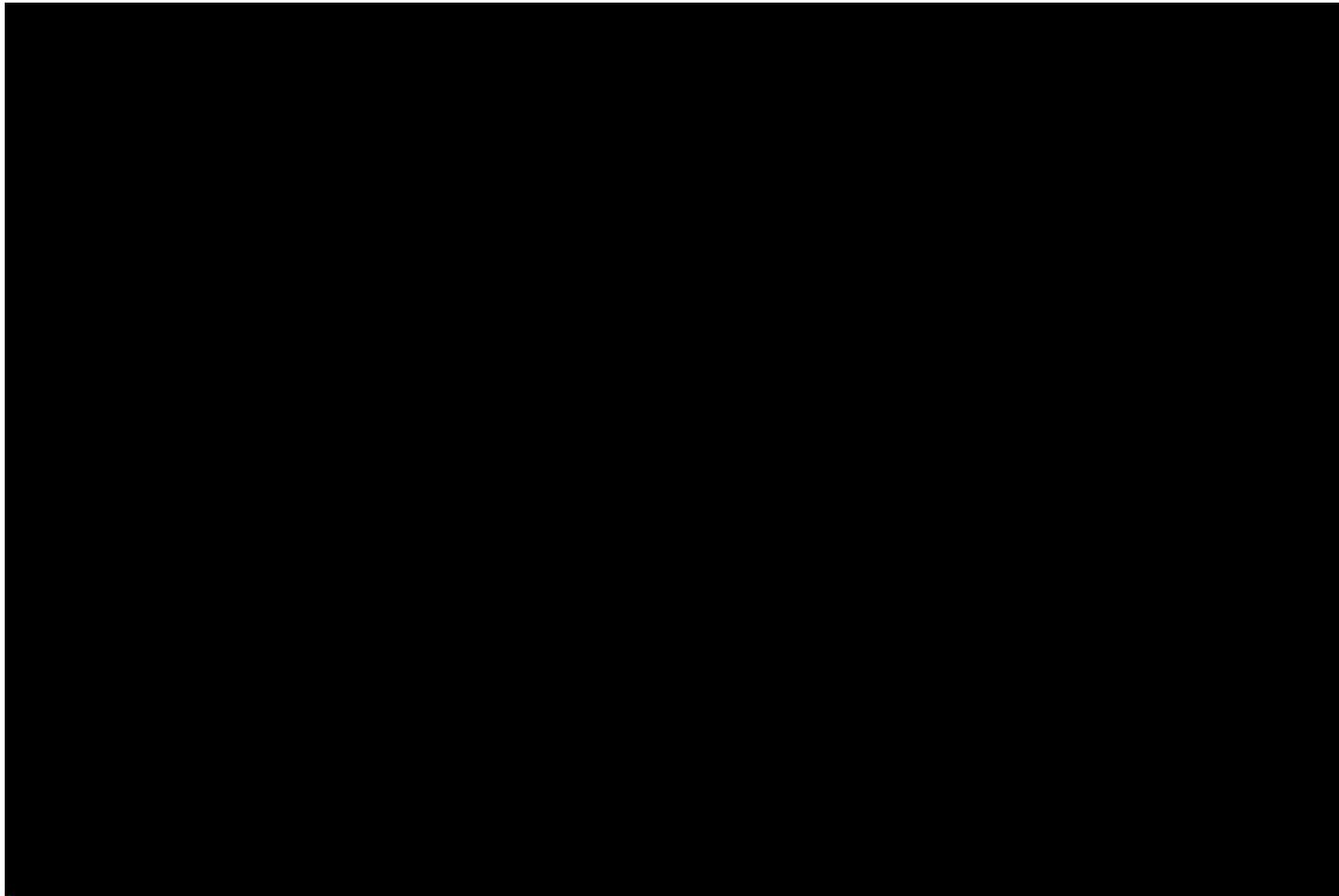
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- The Joint Force Commander (JFC) needs responsive, multiple effects from fully networked and integrated fire support platforms
- Excalibur and operational networks are on track to provide additional resources to JFC
- Advances in targeting, networks, low cost seekers, data links and multiple effects warheads will enable artillery to remain “Ready and Relevant” for the long term



Excalibur Video

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Field Artillery Relevant and Ready



Today and Tomorrow



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