

Headquarters U.S. Air Force

Integrity - Service - Excellence

Anti-Access/Area Denial Challenges



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AF/A5R
6 Oct 10**

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Flight Path

- **What is A2/AD?**
- **Requirements and Challenges**
- **Munitions Investment Strategy**
- **Planning for Future Challenges**



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A2/AD Defined?

- **Contested - med risk, enemy IADs neither fully integrated or attrited (Draft AFDD 3-52)**
- **Permissive - low risk, air superiority/supremacy achieved (Draft AFDD 3-52)**
- **Anti-Access - high risk for many, not all; pervasive enemy activity; high losses until air superiority is achieved (Draft AFDD 3-52)**
- **Air Sea Battle**
 - **Anti-Access - affects movements to a theater**
 - **Area Denial - affects maneuver within a theater**



Defining the A2/AD FoS

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A2/AD FoS (Anti-access/Area Denial Family of Systems)

LRS (Long Range Strike) FoS

General Purpose Forces

(e.g. TACAIR, *Next Gen TACAIR*)

LRSP
(Long Range Strike Platform)

- *New Strike Aircraft*
- B-2
- B-1 & B-52 (contested)

LRSM
(Long Range Standoff Missile)

- *Future Cruise Missile*
- JASSM-ER
- ALCM/CALCM
- TLAM

CPGS
(Conventional Prompt Global Strike)

- Conv Strike Missile
- Conv Trident Mod

Next Generation Weapons

(SDB II, *Next Gen Missile*, HDBT, *Directed Energy*)

Penetrating Stand-in Airborne Electronic Attack (P-AEA)

Penetrating Intelligence, Surveillance, & Reconnaissance (P-ISR)

Enduring Command, Control, and Communication (C3)

Italics = proposed system

- Both LRSP & TACAIR will employ next gen weapons; some TACAIR may employ LRSM
- Goal: Mitigate barriers of distance, hardening, and robust IADS; wield credible, integrated, & tailorable Global Strike capability—**hold the global target set at risk**

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A2/AD Family of Systems Across the Range of Military Operations

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ENABLERS—AEA, ISR, C3, DE

LRSP

Flexible Deterrent Options

LRSM

CPGS

SOF Support

Limited Strike

Campaign

Nuclear

Terrorist Camp

Mobile WMD

Numerous fixed, mobile, and hardened targets

Stable Peace

Unstable Peace

Insurgency

Major Combat Operations

Nuclear War

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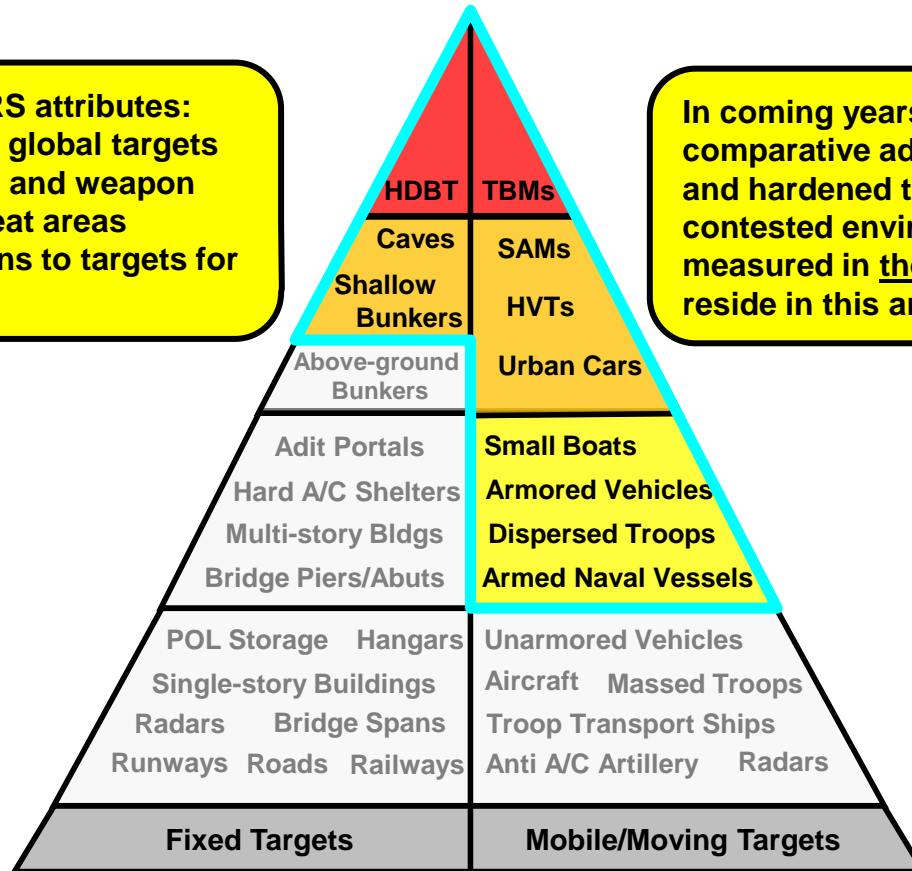


Target Engagement Capability Gap

The 3 most important LRS attributes:

- **Range:** Ability to reach global targets
- **Survivability:** Platform and weapon ability to penetrate threat areas
- **Payload:** Match weapons to targets for desired effects

In coming years, we lose our comparative advantage to hold mobile and hardened targets at risk in contested environments. Targets measured in thousands of aimpoints reside in this area of the triangle.



Capability gap emerging against striking hardened and relocatable targets at long ranges ... in anti-access/area denial environments



Evolving Weapon Requirements

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Non-Precision



*Survivable, Pinpoint
Precision with
Tailorable Effects*

■ Technology is changing expectations

- Putting a 2,000-lb bomb within 30' of a target may not be acceptable
- Increasing demand for accurate, precise munitions with minimum collateral damage *and* enhanced effects
- At the same time, adversaries are making it harder to achieve the required accuracy and precision by relocating and hardening targets



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Current Challenges

- **Air Force priority is to “Win Today’s Fight”**
 - **Near-term focus must be on capability enhancements that reach that goal**
 - **Urgent Operational Need Statements should be the exception, not the norm**
- **AF / Industry partnership is critical**
 - **Must work together to anticipate the Combatant Commander’s needs**
 - **Technology *can* sometimes drive requirements ... if we don’t know it’s possible, we may not consider it an option**



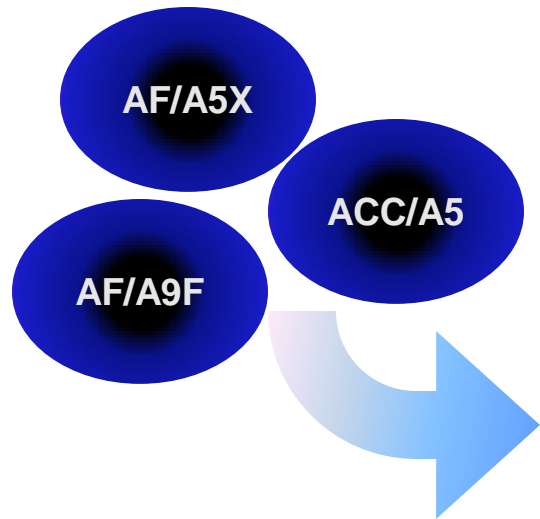
Budget constraints = Requirement for cost-effective, flexible, adaptive, multi-use weapons



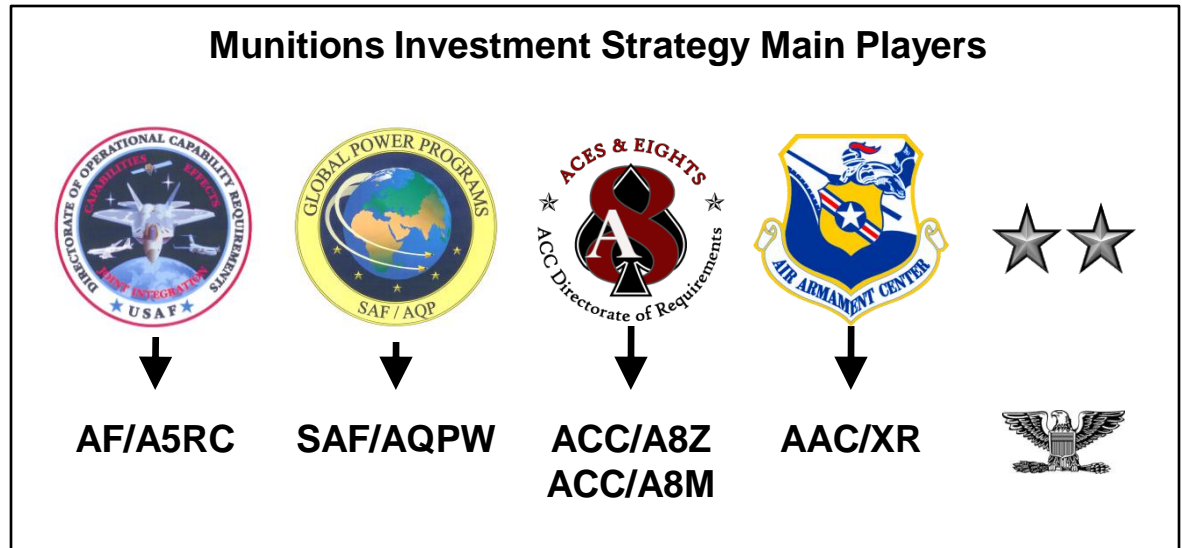
Munitions Investment Strategy (MIS)

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OBJECTIVE: Bridge the gap between near-term and long-term needs and develop support for warfighter capability requirements



- Gaps/Shortfalls
- Supporting Analyses
- ACC Program Preparation



“One Voice” Budget Input

Global Precision Attack/Air Superiority Panel

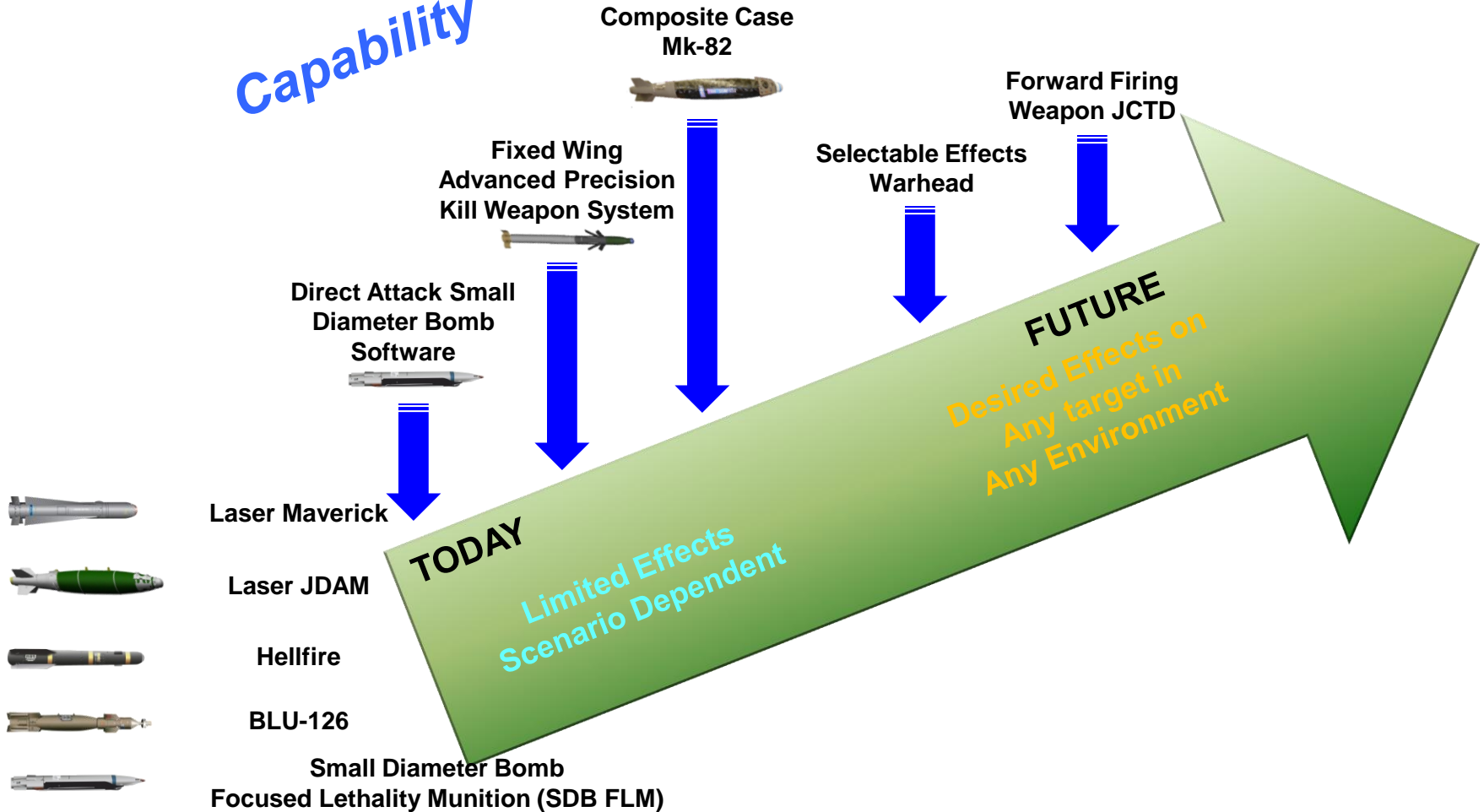
AF Council
 AF Board
 AF Group



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MIS Near-Term Current Operations Capability

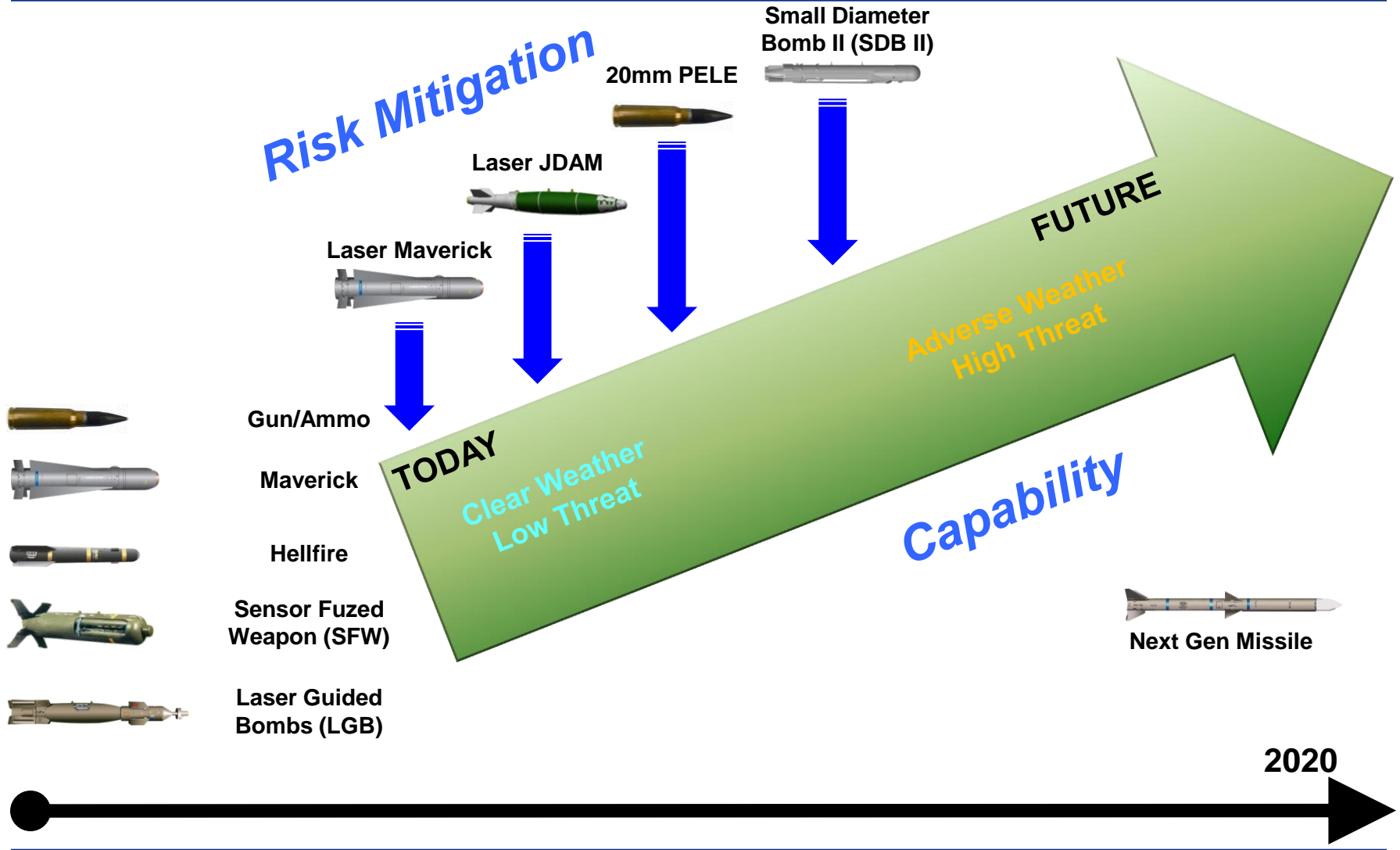
Capability





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MIS Long-Term Moving Target Capability

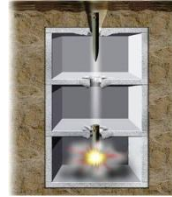




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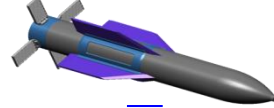
MIS Long-Term Hard Target Capability

Risk Mitigation



Hard Target Void
Sensing Fuze
(HTVSF)

Massive Ordnance
Penetrator (MOP)



BLU-122 (5,000-lb)



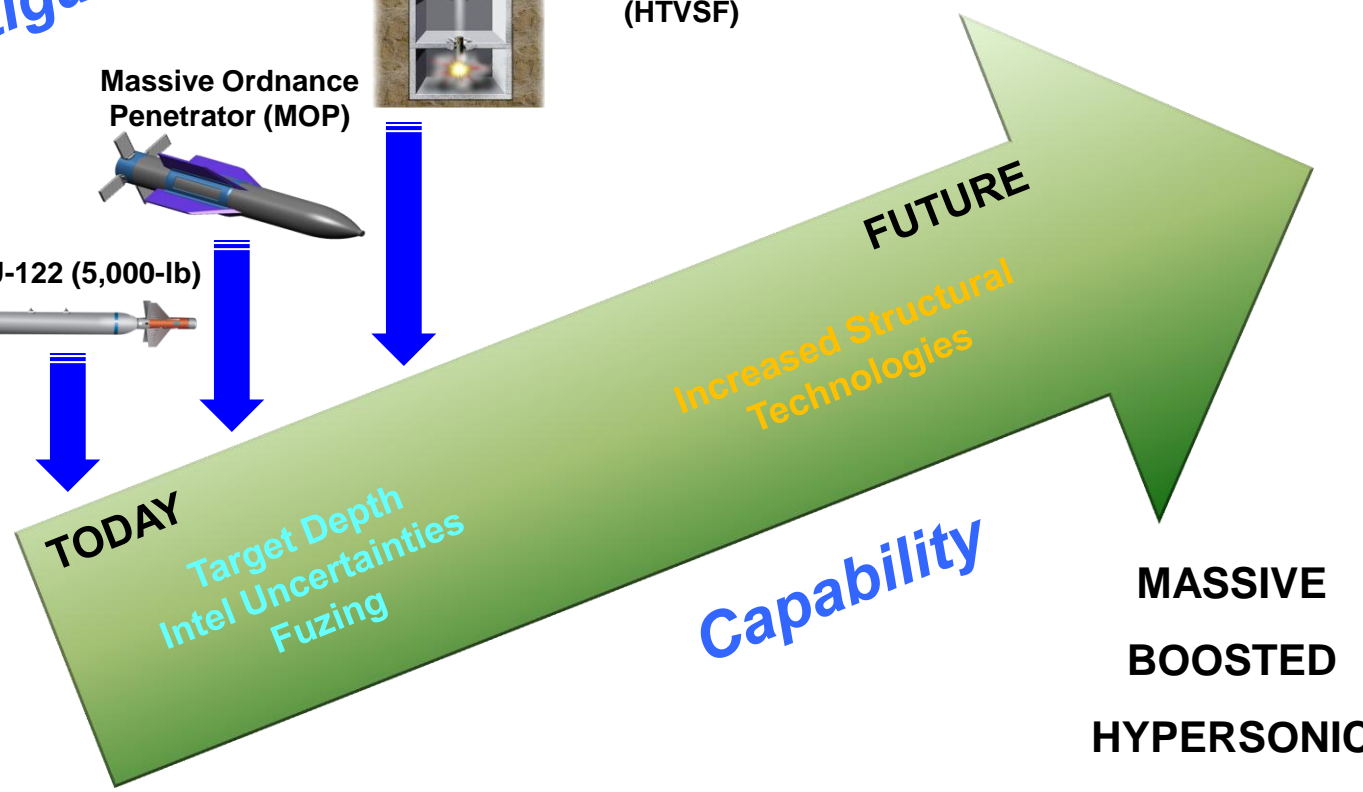
BLU-113 (5,000-lb)



BLU-109 (2,000-lb)



JASSM (1,000-lb)





Planning for Future Challenges

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- Today's fight is the focus, but AF must be ready for the full range of military options
- When possible, leverage today's solutions to meet tomorrow's requirements, e.g. composite-case bombs for today's fight feed tomorrow's "selectable effects" roadmap
- Not every investment has applicability to today's fight ... addressing long-term gaps is still important!

The Air Force strives to prevail in today's fight while being able to respond across the spectrum of conflict to emerging, hybrid threats.

– Hon. Michael Donley, SECAF



A2/AD FoS



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