

Standoff in the Next Missile Age

Trends and Questions

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Field Artillery Symposium

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- Broad trends
- ODI and distributed fires
- Roles & missions
- The wrong lessons from Ukraine

Characteristics of the Next Missile Age

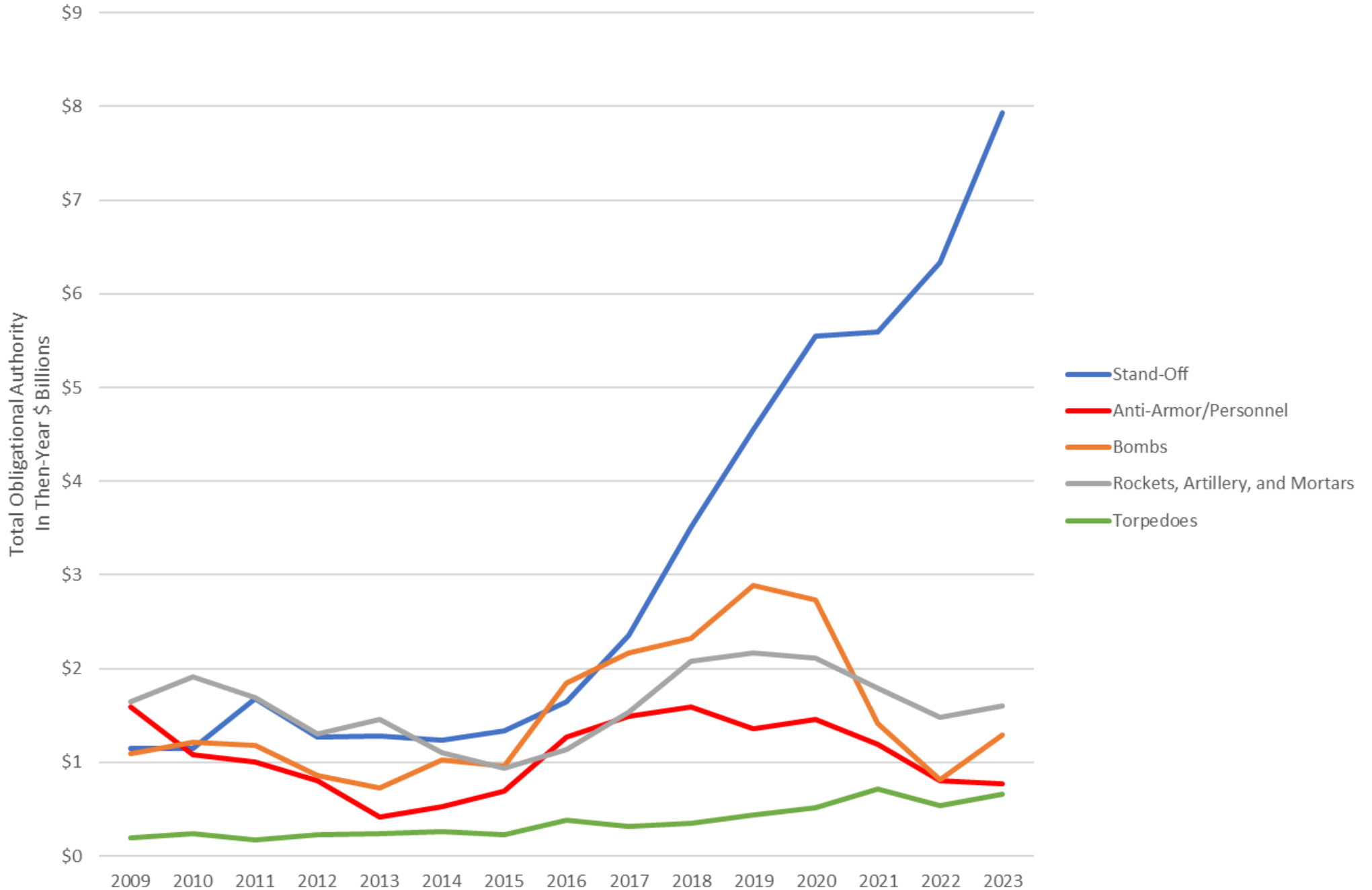
“Missiles are a principal means for projecting military power...”
– 2022 MDR factsheet

“The number of new missile programs ... is growing disproportionately to other capabilities. Writ large, the rest of the world is not developing new fighter and bomber aircraft; they are developing missiles.”

– Acting SECDEF Shanahan, 2018

“We are witnessing the emergence of an era of missile warfare.”
– USMC *Commandant's Planning Guidance* (2019)

Conventional Strike Modernization by Type of Capability, 2009-2023



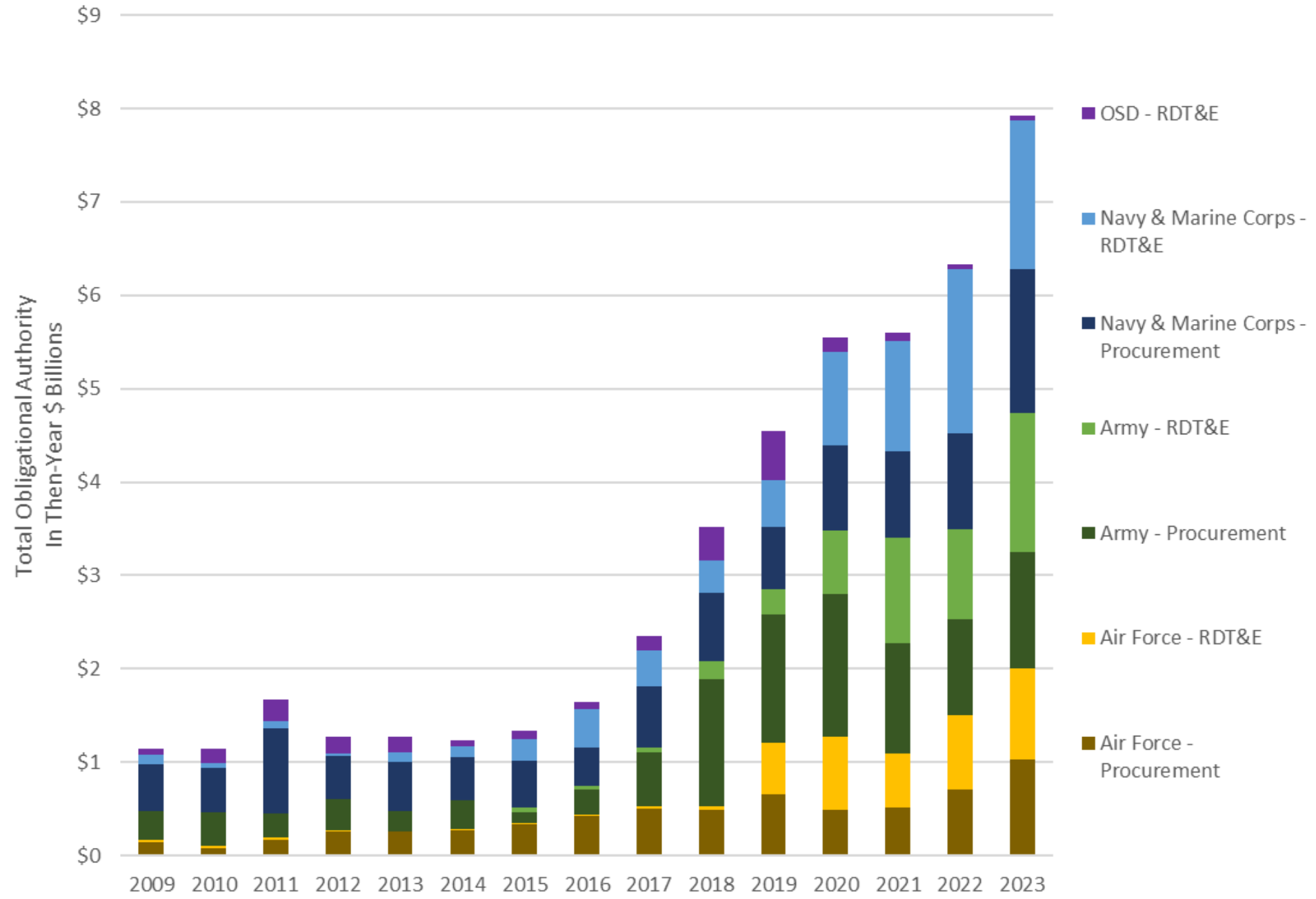
Types of missiles & munitions, 2009-2023

Dataset excludes nuclear delivery systems, small arms

“Standoff” defined as G-MRLS range & up

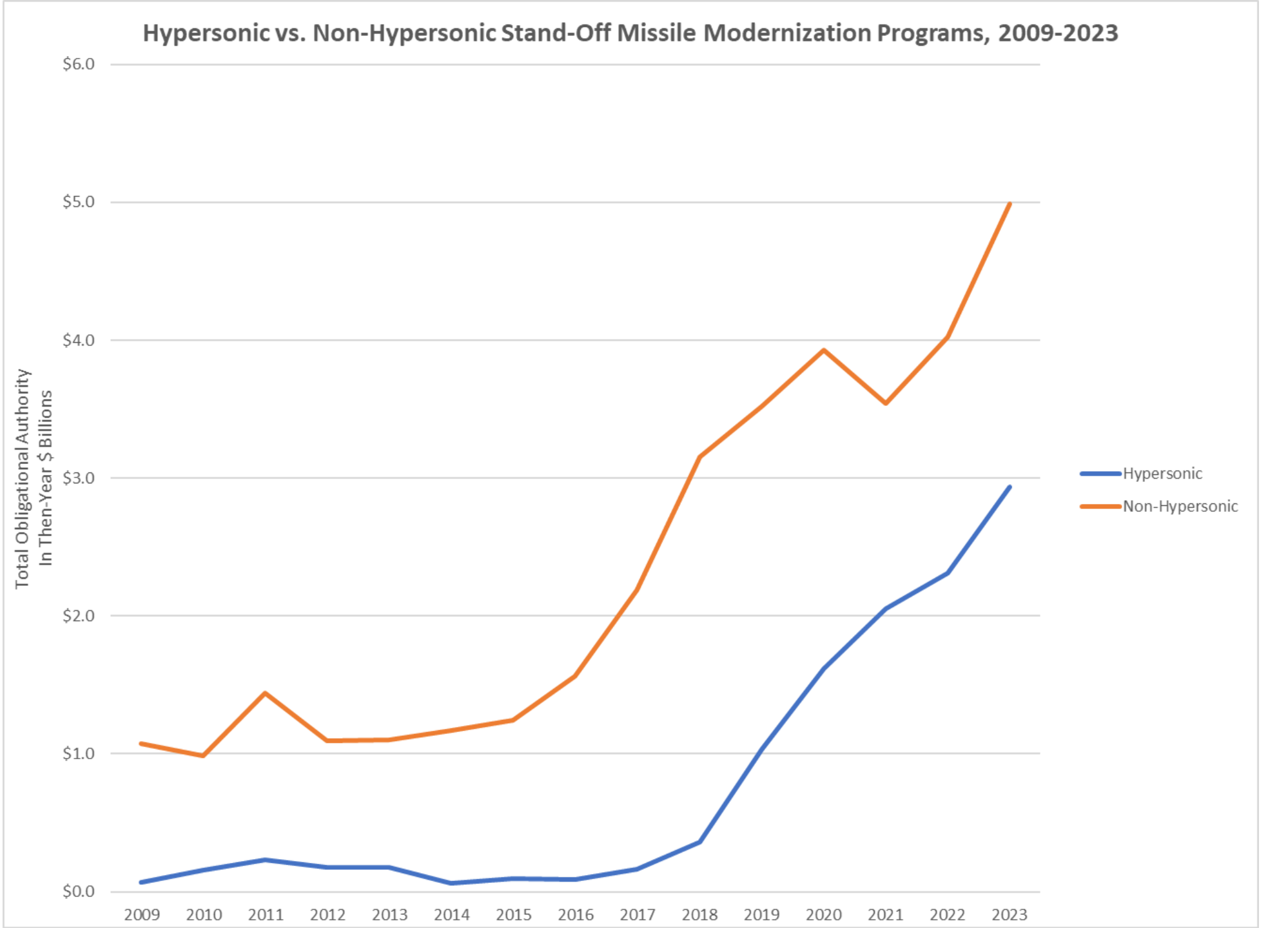
Standoff,
by service

Stand-Off Modernization by Service, 2009-2023

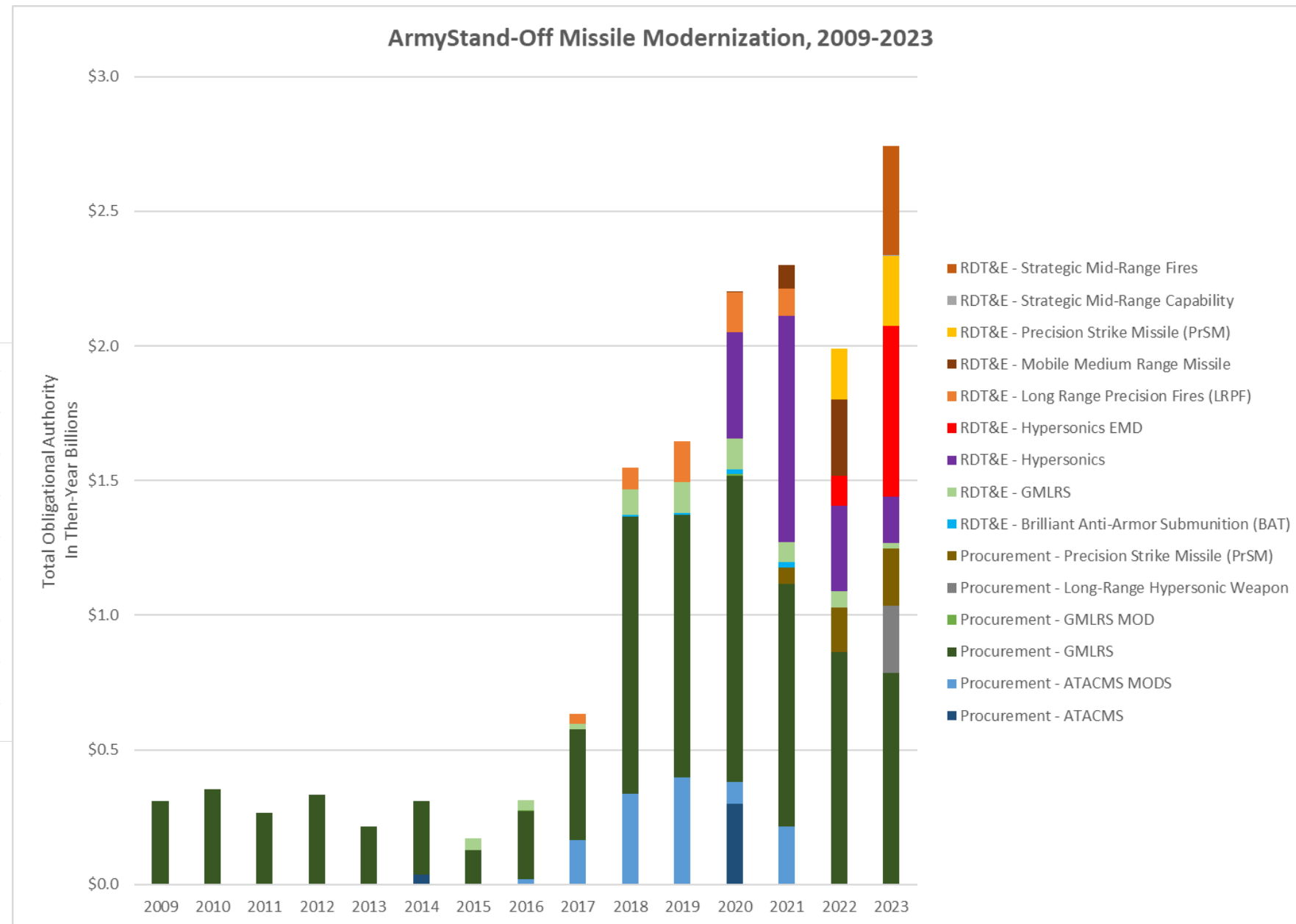
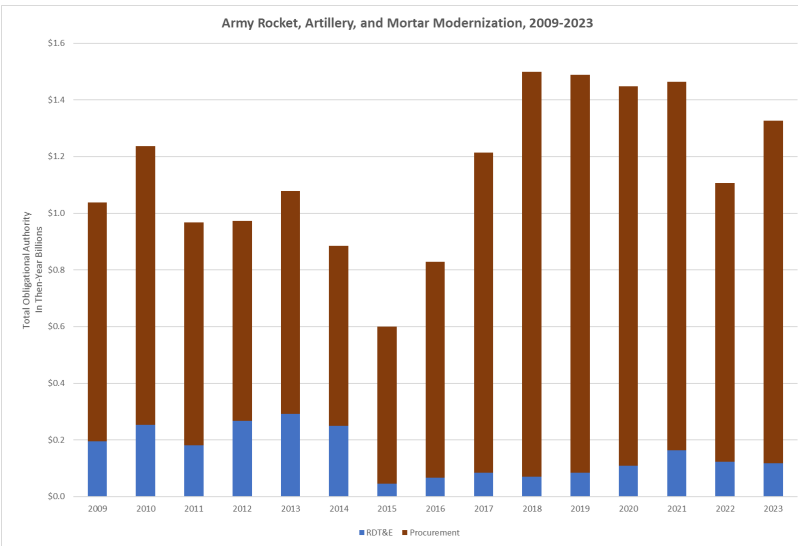


What kind of standoff missiles?

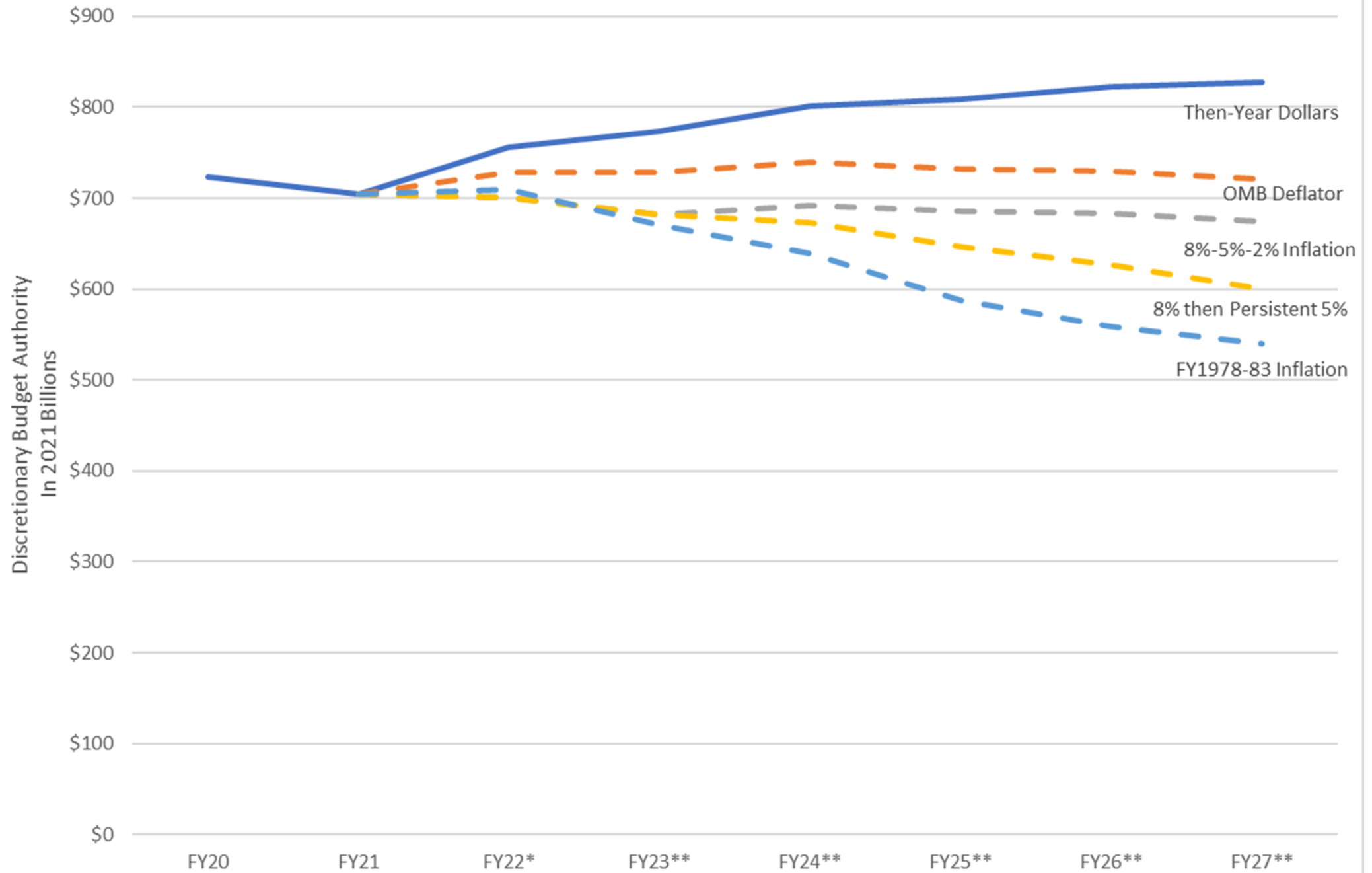
Hypersonic vs. Non-Hypersonic

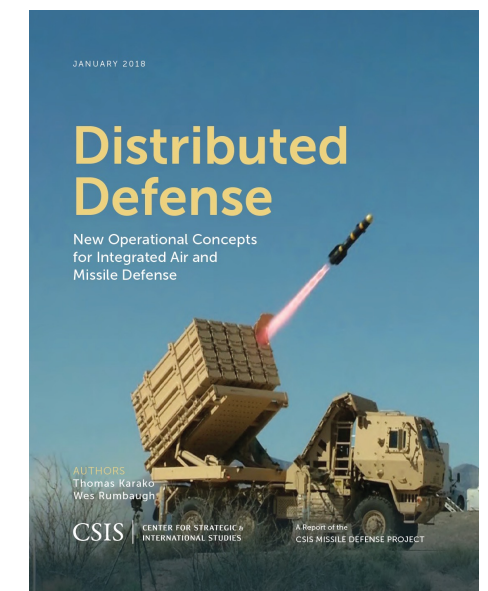


Army Stand-off Missiles & RAM, 2009-2023



Department of Defense Topline with Different Inflation Conditions, 2020-2027

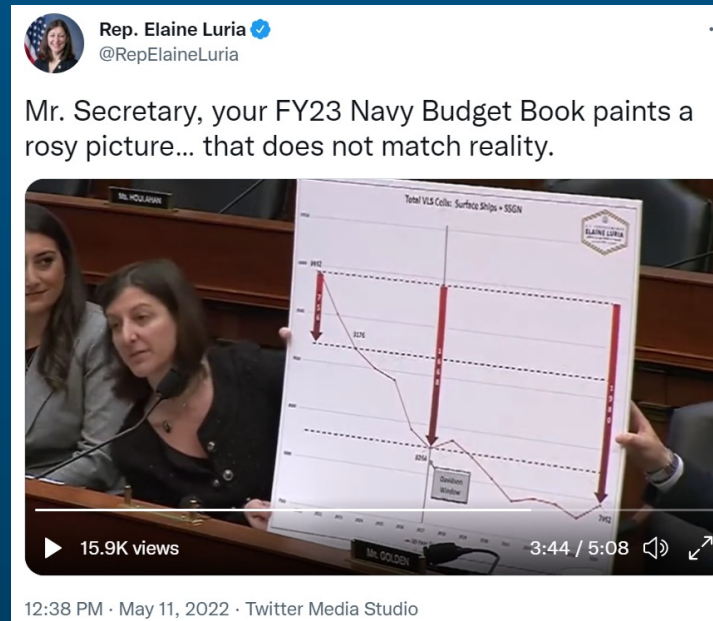




- MRC & distributed fires
- ODI testbed
- Army-Navy AMD integration
- LRHW

Ground-Based, Long-Range Fires Are Not Stupid

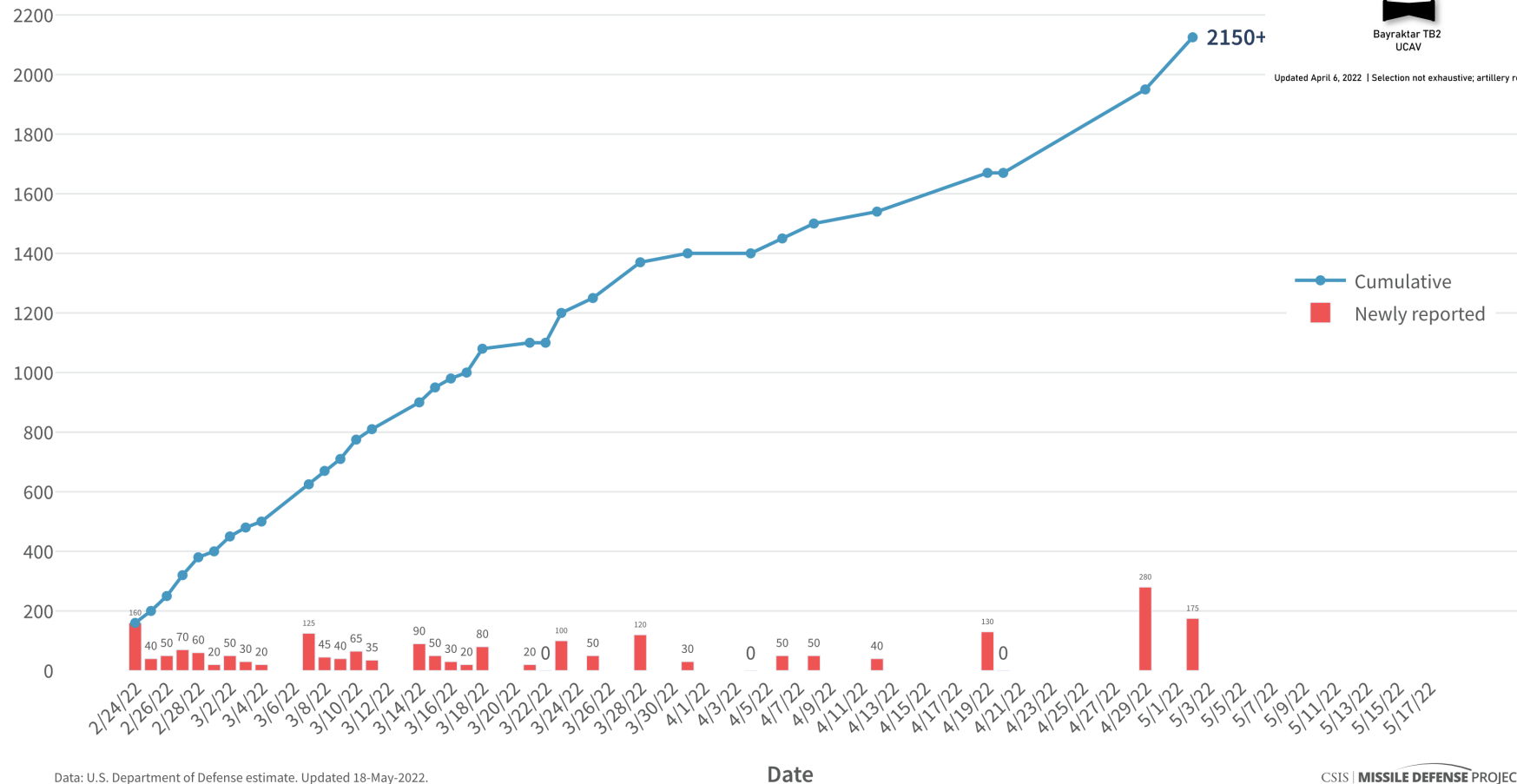
- Complicate surveillance and targeting
- Impose multiple dilemmas
- Cost of delivered effect vs. cost of round
- Dispersal, deception, decoys
- Basing business as usual?
- Mass, tanker + bomber presence, ~1,800 VLS tube reductions this decade
- Intra-Army force structure
- Roles & missions division of labor for the multiple strike missions
- Role for both Army & Marine Corps



“There’s a couple that are arguing pretty aggressively for a kind of a roles and missions look. But that’s looking at the world from 1948. We got to look at the world from 2021.”

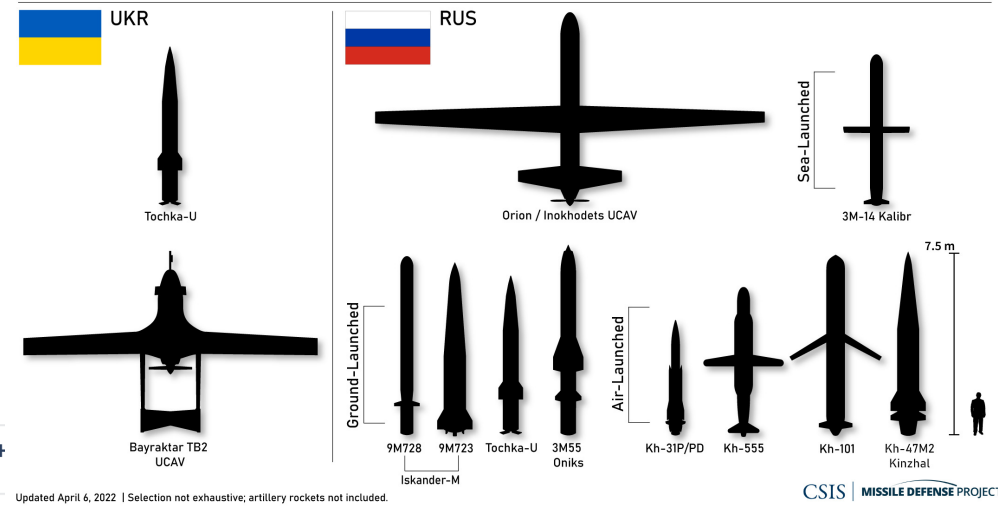
Avoiding the Wrong Lessons of Ukraine

Russian Missile Attacks on Ukraine



Data: U.S. Department of Defense estimate. Updated 18-May-2022. Unmarked regions indicate days with no data reported.

Long-Range Strike Systems Observed in Ukraine



- Offensive & defensive fires in a maritime environment
- Targeting, combined arms
- China will learn and adapt to the cards we showing in Ukraine
- What's the next Javelin?
- Don't overestimate effects of adversary missile failures



1982

THE FUTURE IS

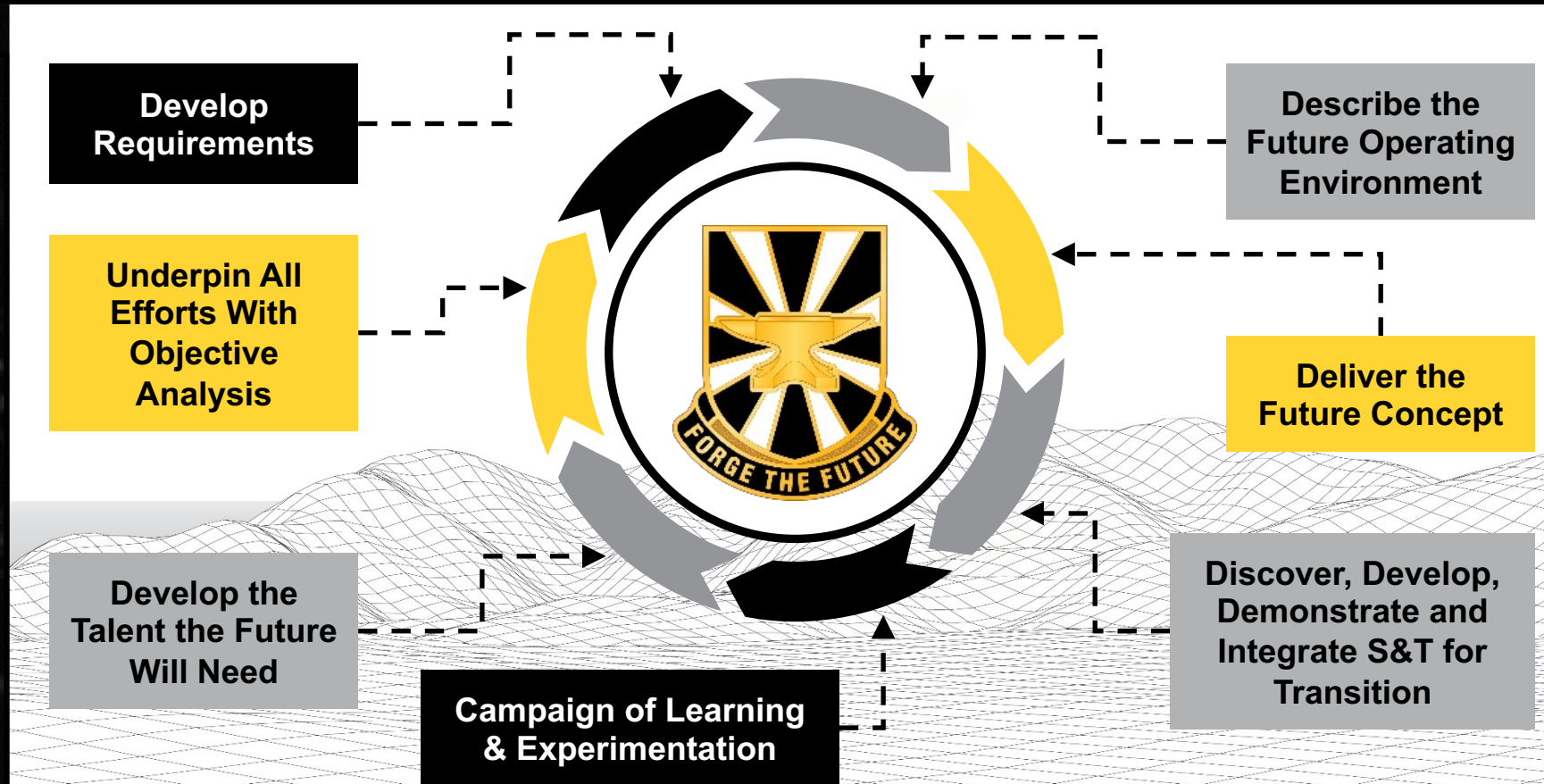
2050

NOW

WHAT WE DO

ARMY DIRECTIVE 2022-07

“AFC is responsible for force design and force development, and is the capabilities developer and operational architect for the future Army. AFC assesses and integrates the future operational environment, emerging threats, and technologies to provide warfighters with the concepts, future force designs needed to dominate a future battlefield.”



AFC MISSION

AFC provides Army modernization solutions (integrated concepts, organizational designs, and technologies) in order to allow the Joint Force, employing Army capabilities, to achieve overmatch in the future operational environment.



CONVERGENCE

A JOINT CAMPAIGN OF LEARNING



"Speed, range, and convergence of cross-cutting technologies to provide decision dominance and achieve overmatch."

GEN James McConville, Chief of Staff of the Army