

PROGRAM EXECUTIVE OFFICE MISSILES AND SPACE

Acquisition Reform In a Rear View Mirror



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PEO Missiles and Space



Program Executive Office Missiles and Space Portfolio



AVIATION	FIRES				MANEUVER	AIR DEFENSE & SPACE	
Joint Attack Munition Systems (JAMS)	Cruise Missile Defense Systems (CMDS)	Counter - Rocket, Artillery, Mortar (C-RAM)	Integrated Air & Missile Defense (IAMD)	Lower Tier Project Office (LTPO)	Precision Fires Rocket and Missile Systems (PFRMS)	Close Combat Weapon Systems (CCWS)	Missile Defense & Space Systems (MDSS)
 Hydra-70  Joint Air-to-Ground Missile (JAGM)  Small Guided Munitions  HELLFIRE  Launchers	 IFPC Inc 2-I  NASAMS  Sentinel  STINGER  Avenger	 C-RAM Intercept (LPWS)  RAM Warn  Air and Missile Defense Planning & Control System (AMDPCS)  Forward Area Air Defense Command & Control (FAAD C2)  AN/TPQ-50 AN/TPQ-53  AN/TPQ-36 AN/TPQ-37 Range Radar Replacement Program (RRRP)	 IAMD Battle Command System (IBCS) Engagement Operations Center (EOC)  A/B Plug and Fight Interface Kits  Integrated Fire Control Network (IFCN) Relay	 PATRIOT/ Ground Support Equipment  PATRIOT Advanced Capability (PAC-3)  PAC-3 Missile Segment Enhancement (MSE)	 Guided Multiple Launch Rocket Systems (GMLRS/U/AW)  High Mobility Artillery Rocket System (M142 HIMARS)  Multiple Launch Rocket System (M270A1 MLRS)  Army Tactical Missile Systems (ATACMS)	 JAVELIN  Tube-Launched, Optically-Tracked, Wire-Guided (TOW)  Improved Target Acquisition System (ITAS)  Lethal Miniature Aerial Missile System (LMAMS)  Precision Fires Manager (PFM)  Containerized Weapon System (CWS)	 Medium Extended Air Defense System (MEADS)  Joint Tactical Ground Station (JTAGS) New Mission THAAD & AN/TPY-2 Army Service Cells C2 Space Initiatives Directorate  SMDC Nanosatellite Project (SNaP-3)  Kestrel Eye (KE) Microsatellite  Soldier-Warfighter Operatively Responsive Deployer for Space (SWORDS)



JAMS Family of Products



HELLFIRE Missiles

FA - K - N - R Variants



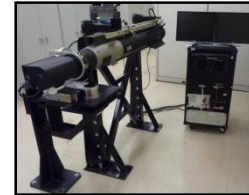
Semi-Active Laser HELLFIRE (SAL)



Longbow HELLFIRE (MMW)



Test Sets



MHUTS



Launcher Test Station



AN/AWM-101A TSGMS



SALSTS



Launchers



M272 Launcher



M279 Launcher



M299 Launcher



Quad-Rail (M299A1)



Dual-Rail (M310A1)



UAS (M801)

2.75-inch Hydra Rocket System



Rockets

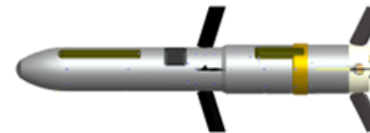


Launchers



M260/M261 Rocket Launchers

Small Guided Munitions



Griffin

Joint Air-to-Ground Missile





U.S. ARMY

JAMS Customers/Platforms



Littoral Combat Ship



Gray Eagle / Predator UAV



AH-64



OH-58D



Ground Launch



MD-500



SH-60



AC-130 Dragon Spear



Eurocopter Tiger



MH-60



Agusta



KC-130 Harvest Hawk



AH-1W/Z



Reaper UAV



S-70



Cessna Caravan

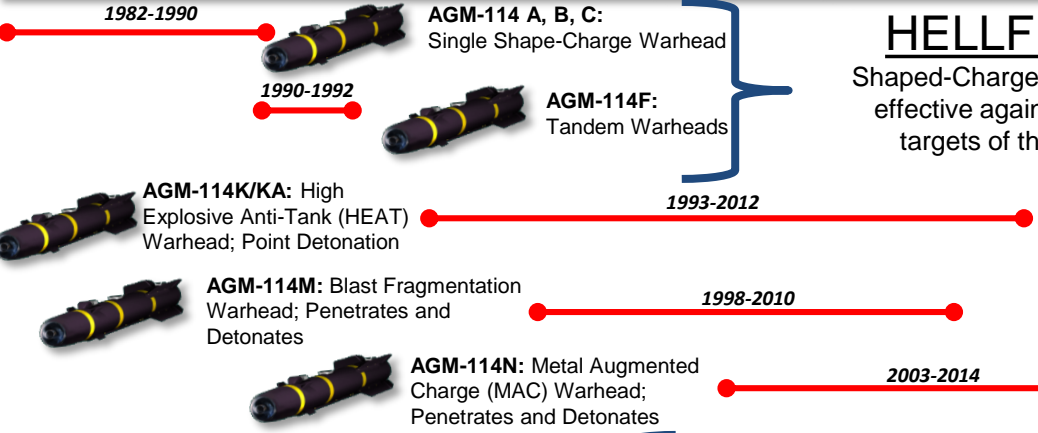


Air Ground Missile Systems

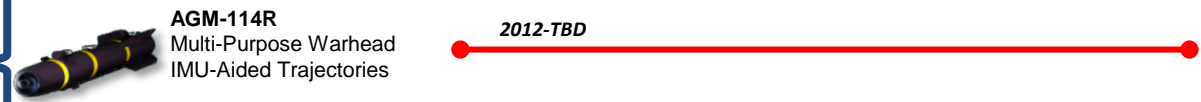


HELLFIRE I
Shaped-Charge Warheads effective against Armor targets of that time.

HELLFIRE II
Improved warheads to defeat reactive armor and hardened against countermeasures. Additional fragmentation and variants to defeat MOUT and other than armor target sets.



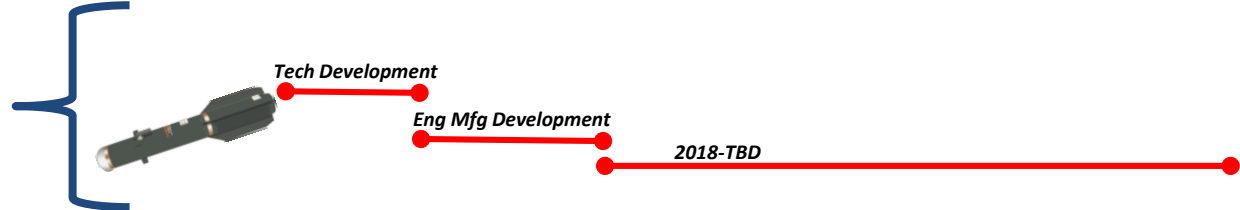
HELLFIRE Romeo
Multi-Purpose Warheads capable of defeating all target sets. Multiple fuse settings, increased weapons engagement envelope. Capable of employment from all platforms including unmanned aerial systems and ground platforms.



HELLFIRE Longbow
Millimeter-Wave Seeker with programmable software. All-Weather fire and forget capability.



JAGM
Incremental strategy to provide a precision guided, all-weather system capable of defeating fixed, moving and fleeting targets in battlefield-limited visibility conditions. Provides standoff capability against threats and remains fully effective against a variety of countermeasures.





JAGM Missile



- Improved Fire & Forget
- Moving Targets
- Adverse Weather
- Countermeasures
- Improved Operational Flexibility



JAGM Backward Compatible to HELLFIRE II Platforms

- Fire + forget with options
- Multi-mode seeker (MMW/SAL)
- AH-64/AH-1Z - Initially



Lessons Learned



1. Economies of scale
 - Multiple Services, Multiple Platforms, FMS
 - Bundled procurements contracting strategy
 - Balance production rates and inventory requirements in strategy
2. Modular Open System Architecture
 - Supports competition
 - Enables technology insertions
 - Joint by growth not necessarily by birth
3. Intellectual Property
 - Leverages Government lab efforts
 - Supports quick response
 - Own the kill chain
4. Safety, Reliability, Affordability, Producibility, Obsolescence



Questions?



Any Warfighter - Anywhere - All The Time