# Program Executive Office
## Missiles and Space Portfolio

### AVIATION
- 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)

### FIRES
- 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)

### MANEUVER
- Closed Combat Weapon Systems (CCWS)
- Missile Defense & Space Systems (MDSS)

### AIR DEFENSE & SPACE
- Medium Extended Air Defense System (MEADS)
- Joint Tactical Ground Station (JTGS)
- New Mission THAAD & AN/TPY-2 Army Service Cells C2

### AVIATION
- Hydra-70
- IFPC Inc 2-I
- NASAMS
- Sentinel
- STINGER
- Avenger

### FIRES
- C-RAM Intercept (LPWS)
- RAM Warn
- Air and Missile Defense Planning & Control System (AMDPACS)
- Forward Area Air Defense Command & Control (FAAD C2)
- AN/TPQ-50
- AN/TPQ-53
- AN/TPQ-36
- AN/TPQ-37
- Integrated Fire Control Network (IFCN) Relay

### MANEUVER
- PATRIOT/ Ground Support Equipment
- PATRIOT Advanced Capability (PAC-3)
- Multiple Launch Rocket System (M270A1 MLRS)

### AIR DEFENSE & SPACE
- JAVELIN
- Tube-Launched, Optically-Trackerd, Wire-Guided (TOW)
- Improved Target Acquisition System (ITAS)
- Lethal Miniature Aerial Missile System (LMAMS)
- Precision Fires Manager (PFM)
- Containerized Weapon System (CWS)

### Joint Air-to-Ground Missile (JAGM)
- Hydra-70
- IFPC Inc 2-I
- NASAMS
- Sentinel
- STINGER
- Avenger

### Small Guided Munitions
- Hydra-70
- IFPC Inc 2-I
- NASAMS
- Sentinel
- STINGER
- Avenger

### HELLFIRE
- Hydra-70
- IFPC Inc 2-I
- NASAMS
- Sentinel
- STINGER
- Avenger

### Launchers
- Hydra-70
- IFPC Inc 2-I
- NASAMS
- Sentinel
- STINGER
- Avenger

Any Warfighter - Anywhere - All The Time
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)

Rockets
- 2.75-inch Hydra Rocket System

Small Guided Munitions
- Griffin
- M260/M261 Rocket Launchers

Joint Air-to-Ground Missile

Any Warfighter - Anywhere - All The Time
JAMS Customers/Platforms

- Littoral Combat Ship
- Gray Eagle / Predator UAV
- AH-64
- OH-58D
- Ground Launch
- MD-500
- AC-130 Dragon Spear
- AH-1W/Z
- Reaper UAV
- S-70
- Eurocopter Tiger
- Agusta
- MH-60
- KC-130 Harvest Hawk
- Harvest Hawk
- S-70
**Air Ground Missile Systems**

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

**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