



USMC Small Arms Modernization Brief

**Mr. Chris Woodburn
Deputy, Maneuver Branch
Marine Corps Capabilities Development
Directorate**



Up Front Thoughts

- **Funding will continue to be constrained**
 - Limits ability to implement new systems / upgrades
 - Current weapons in inventory at some level through 2030
- **Structure continues to decrease**
 - Provides some flexibility to redistribute best capabilities across the force
 - Fight to retain excess assets for sustainment and future structure growth
- **Next generation of small arms and optics**
 - Developing requirements for the next generation of small arms and optics via the Joint community



Weapons Strategy

- **Maintain current capabilities**
 - Implement improvements (accuracy, lethality, ergonomics and weight reduction) when technology and funding will allow to keep small arms relevant
- **Improvements will be implemented on a much smaller scale, starting with the infantry and expanding to other combat arms when feasible**
- **Future weapons will be pursued via Joint efforts whenever possible**
 - Fiscal constraints limit new initiatives until the 20's





Near Term Strategy

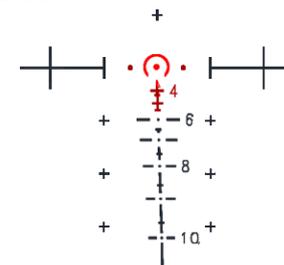
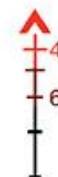
Completed

- **Adjustable Buttstock for M16A4**
 - Allows operator to adjust length of pull
 - MCSC fielded limited quantities; Commanders authorized to procure and modify rifles as needed
 - Provides improved ergonomics for the primary MAGTF T/O service rifle

In Progress

- **M2A1 Quick Change Barrel**
 - Conversion kit that provides quick change barrel, fixed headspace and timing and a new flash hider that reduces the weapon's signature by 95 percent at night
 - Improves safety and durability
 - Conversion ongoing; IOC 3rd Qtr FY16; FOC 4th Qtr FY19
- **Lightweight Light/Medium Machine Gun Tripod**
 - Provides ~19% weight savings over the current tripod while providing the same functionality
 - IOC 3rd Qtr FY16; FOC 4th Qtr FY19
- **Rifle Combat Optic**
 - Switch to preferred circle/dot reticle from chevron based on operator feedback and recommendation from the FY15 Combat Marksmanship Symposium
 - Consolidation to a single optic for M16A4/M4
 - IOC 2nd Qtr FY16; FOC 4th Qtr 2025

(dependent upon funding and vendor throughput)





Near Term Strategy

- **M40A6 Sniper Rifle**

- Provides a modular stock to improve portability and shooter ergonomics, and an improved barrel that reduces the overall length and weight of the weapon while maintaining current accuracy and range
- IOC 4th Qtr FY16; FOC 4th Qtr FY17



- **M4 Realignment**

- NSWC Crane determined that the M4's overall performance now exceeds the M16A4 when using new ammunition
- Replacing M16A4 with M4 as the primary T/O weapon in infantry battalions, Marine Corps Security Forces, and supporting infantry schools using existing weapons
- Improves accuracy and mobility for the individual infantryman and Marine Rifle Squad
- Anticipated completion 3QFY16



- **Long Range Precision Rifle**

- Adopt the Army's requirement to pursue a materiel solution
- Pursue materiel solution with the Army and USSOCOM



Long Term Strategy

- **Small Arms Capabilities Based Assessment**
 - Army CBA
 - Validated and adopted by USMC
 - Source document for capability gaps used to inform future requirements
- **Modular Handgun System (early '20's)**
 - US Army led program seeking a modular Commercial-Off-The-Shelf (COTS)/Non-Developmental Item (NDI) solution.
 - Goal is a pistol that features increased accuracy, improved ergonomics, and a higher degree of reliability/durability over legacy systems
 - USMC is participating in MHS Source Selection to inform a follow-on life cycle decision to replace our current service pistols in the early 2020's
- **Small Arms Ammunition Configuration Study (Ongoing)**
 - SAAC is being conducted by the Army to provide courses of action for ammo configurations that will meet our small arms gaps in conjunction with the next generation of squad weapons
 - The Marine Corps is an active participant in the study by Army invitation
 - o Provides SMEs from the requirements, acquisition and infantry communities (Gunners, SNCOs, and NCOs) to inform desired capabilities and operational vignettes

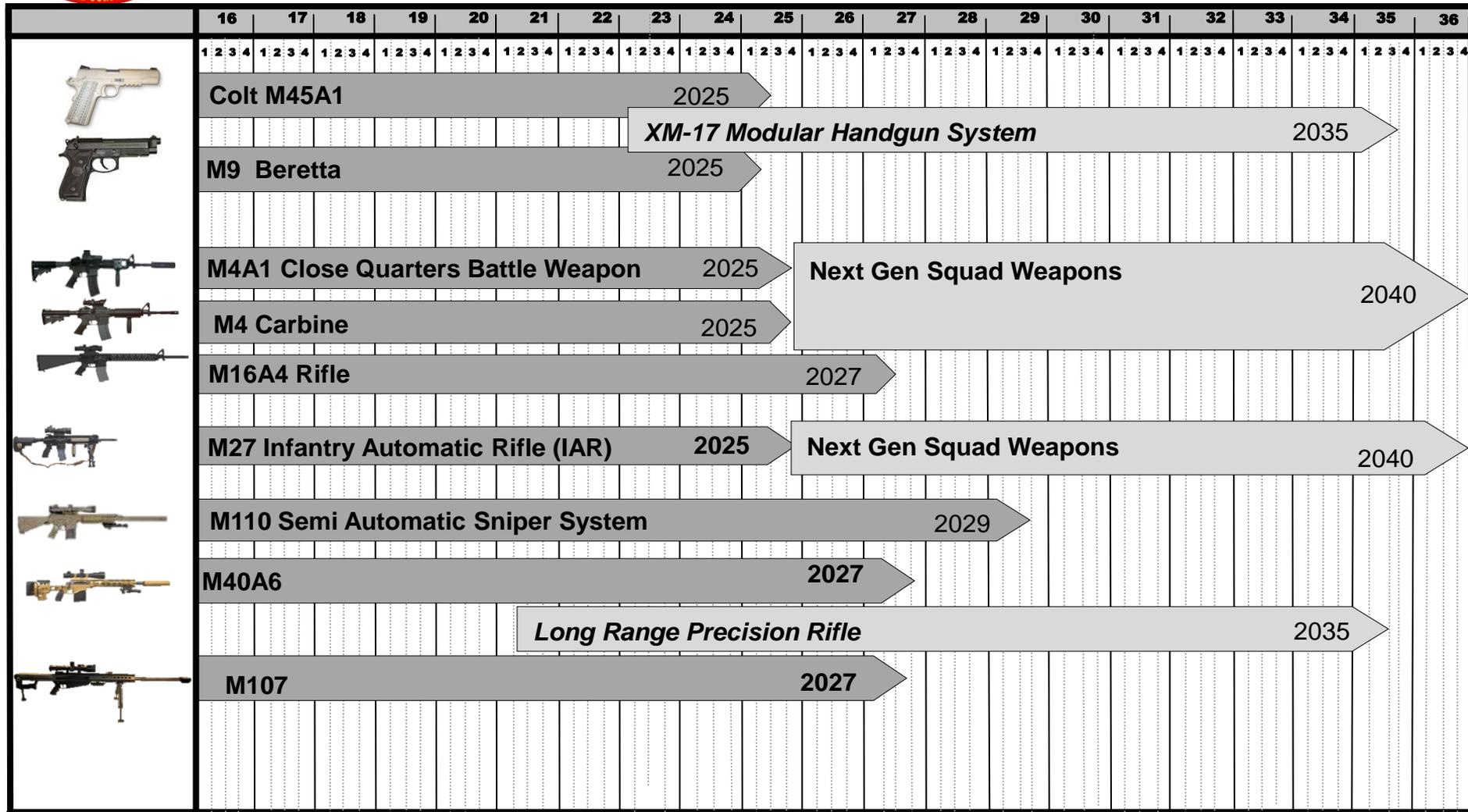


Long Term Strategy

- **Next Generation of Squad Weapons (mid to late 20's)**
 - Automatic Rifle, Individual (Carbine), Designated Marksman
 - Holistic approach to integrating technological and materiel advancements for small arms to improve accuracy and increase lethality out to 600m (based on Small Arms CBA)
 - o Optics, fire control, power, and enablers integrated into a single system
 - o Optimized ammunition configuration
 - o Recoil management
 - o Neutral/improved effects on mobility (reduced weight and size) as measured by the Load Effects Assessment Program (LEAP)
 - o Signature suppression (audible and visible)
 - o Data exchange (tagging, IFF, fire direction, fire control)
 - o Shot counter
 - USMC participating in US Army requirements development
 - o CDD for the Next Generation Automatic Rifle is currently in draft and entering Army staffing
 - o CDD for Next Generation Fire Control is being drafted
 - o CDDs for the Next Generation Individual Carbine and Designated Marksman Weapon are planned
 - Joint S&T efforts currently working to mature enabling capabilities listed above
 - o Funded and managed by the Joint Services Small Arms Program Office

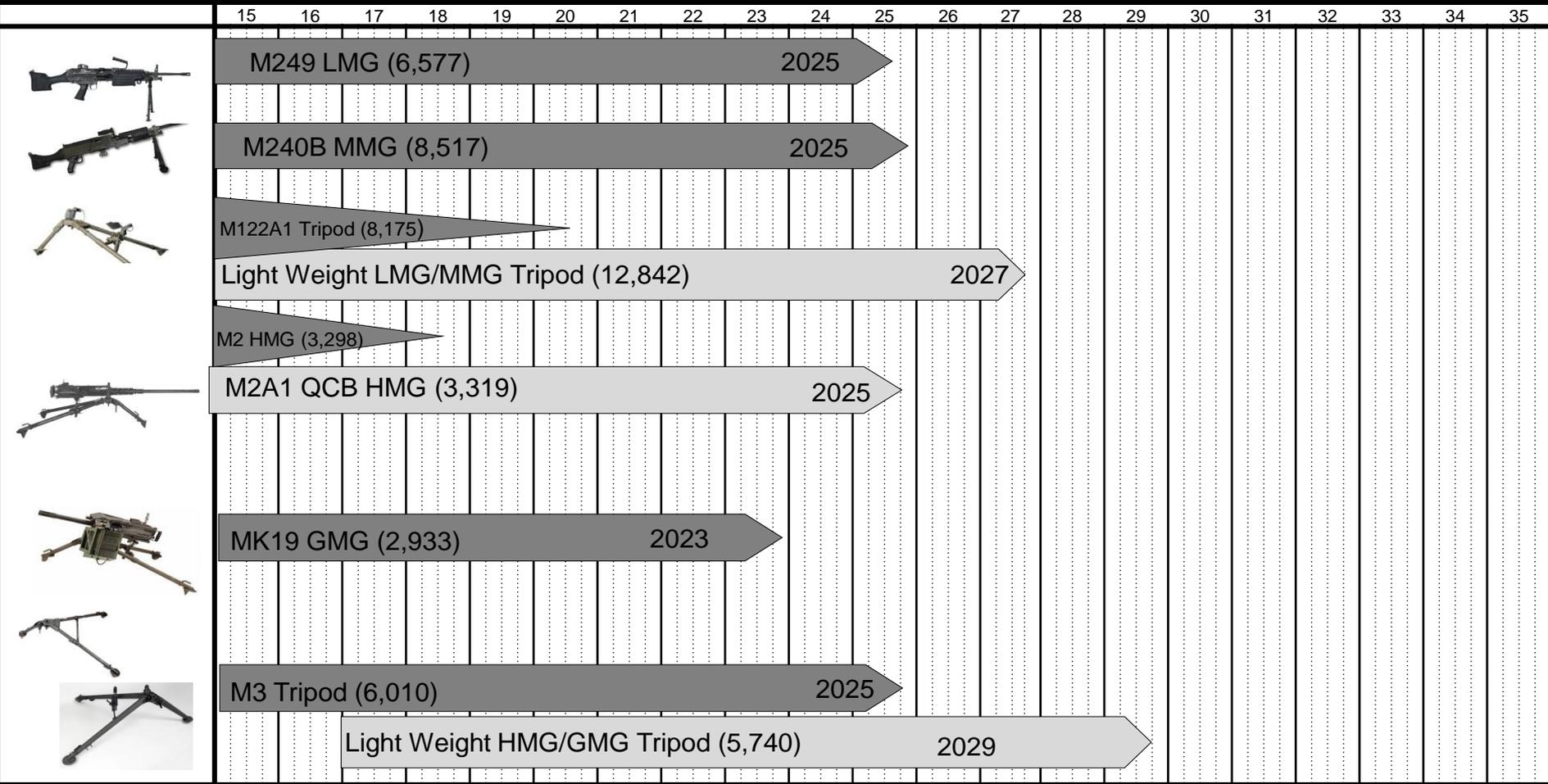


Infantry Weapons Capability Road Map





Infantry Weapons Capability Road Map





QUESTIONS?