



U.S. ARMY

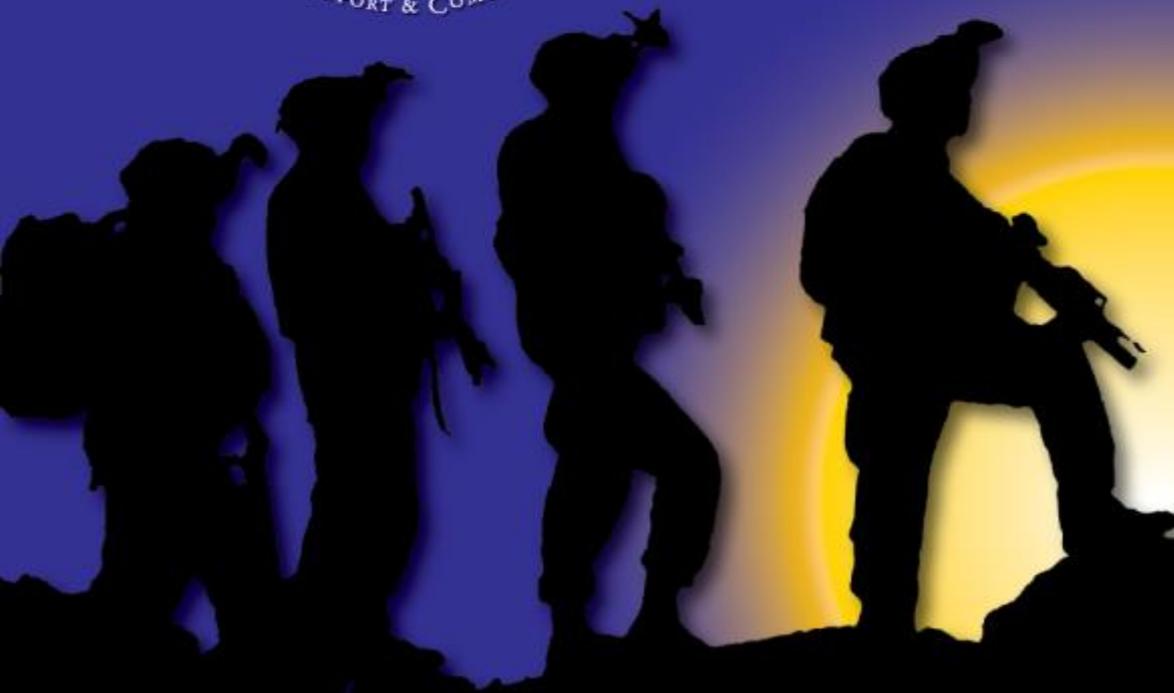


M&S for TMRR

PdM ALUGS

22 June 2016

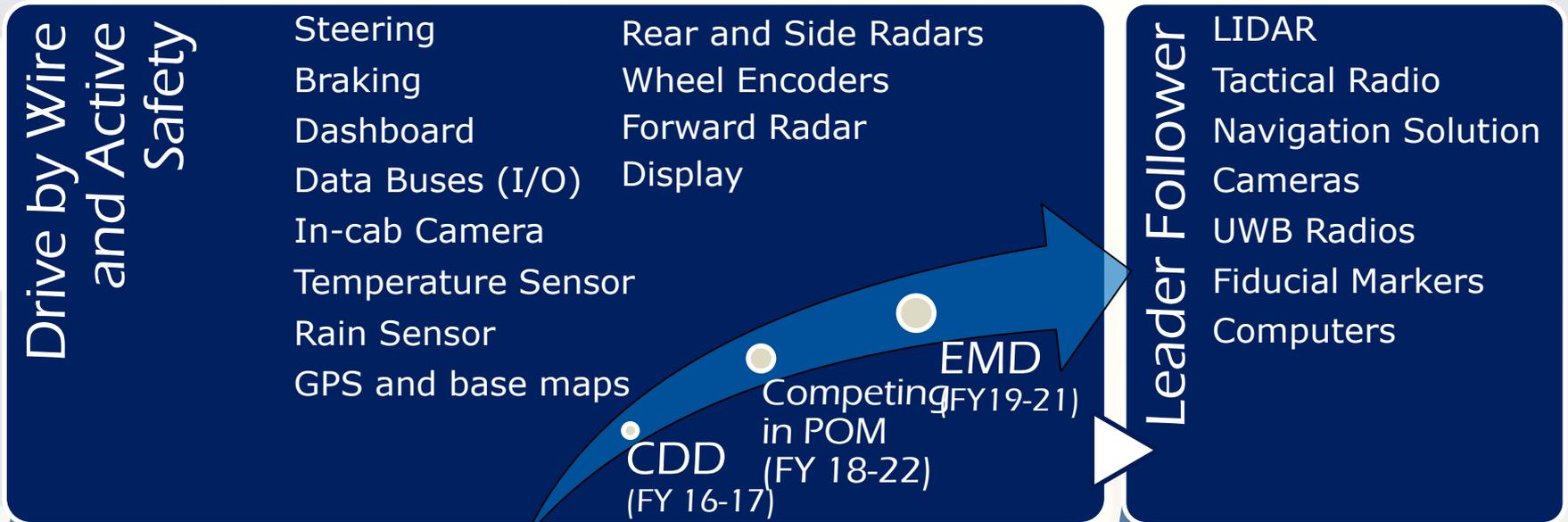
LTC Cory Berg





PLS A1 Leader Follower

System Description: Appliqué System linking unmanned Follower PLSs to a soldier-operated Leader PLS vehicle for increased throughput and Soldier protection both on the road and off road. Calculates separation distances, provides status, and receives input from leader/followers.



Provides Leader Follower Unmanned Capability to the PLS A1 Vehicle



Leader Follower Risk Mitigation

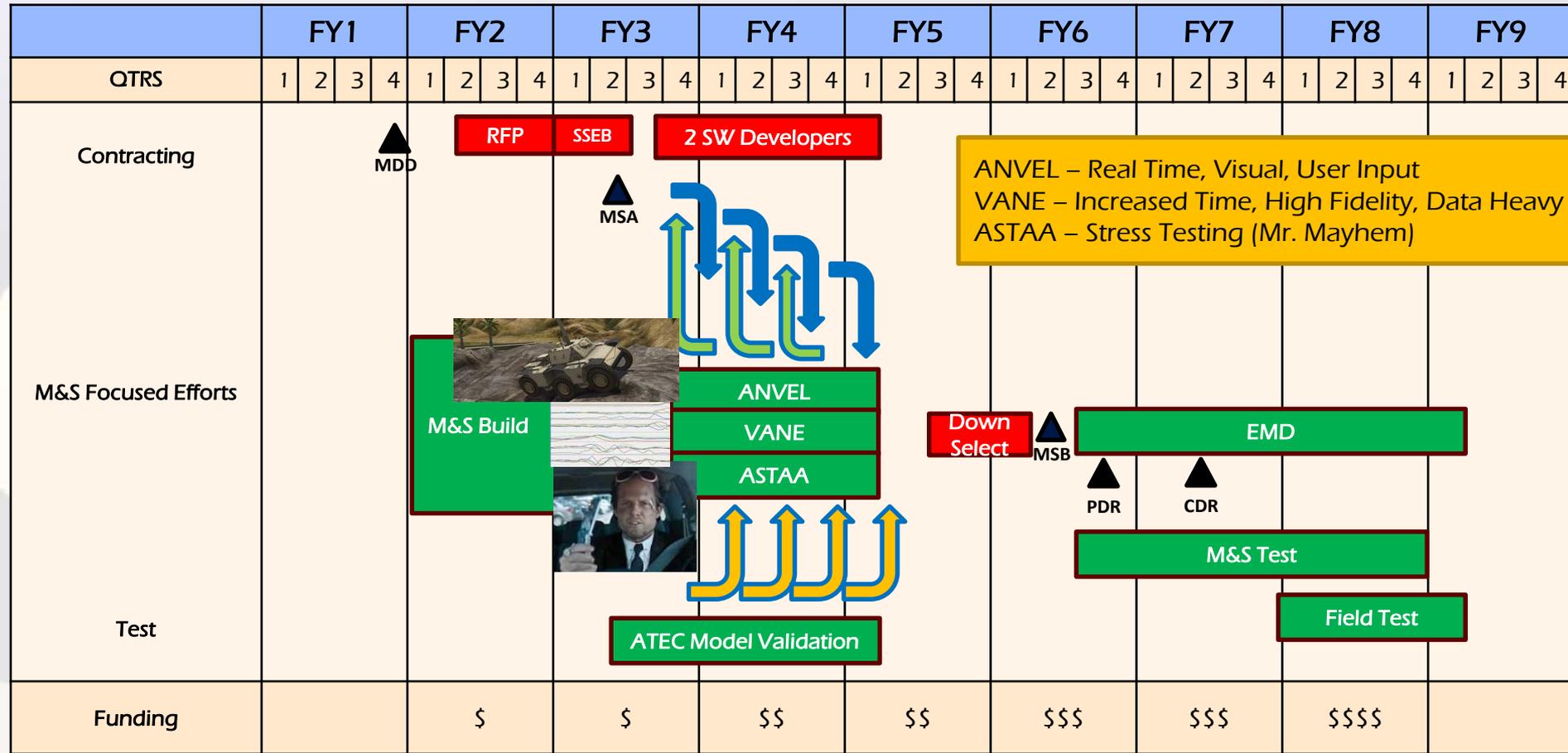
- In managing the affordably risks associated with adding autonomous capabilities to large tactical wheeled vehicles, PM FP is actively pursuing several efforts:
 - Interoperability Profiles (IOP) V3 development for interface between automation kit & by-wire kit
 - Modeling & simulation through System Integration Labs (SILs) for use-case analyses
 - Automation engagement with test community
 - Software re-use strategic planning with TARDEC for Robotic Operating System for Military (ROS-M)



Why M&S

- Risk Aversion
- Rand Study Notes LOTS of Miles to Test
- New Unchartered Autonomy Programs
- Limited Funds for EMD Phase
- Mature Lower Technology Readiness Levels

M&S Concept



M&S Objectives { Reduce Risk
 Reduce Cost
 Reduce Field Testing



M&S Questions

- M&S specifics
 - Do sensors need to be modeled?
 - What can be modeled, simulated, or provided in the SIL environment?
- What industry incentives can be part of a M&S contract
- VV&A plan for the model, accepted by ATEC
 - How much will M&S reduce PPOT testing during EMD



CPD Alternatives

- CDD~5-6 Years to Field Equipment
- CPD~2-3 Years to Field Equipment
- High Demand for Autonomy/Robotics Now
- Procure Technology Available Today, COTS
- Allow Hard to do and Expensive Technology to Develop for future applications
- Industry Input on:
 - Increasing Reliability
 - Increasing Test Community Confidence
 - RFP strategy
 - Run Off
 - Downselect
 - Lifespan and Support Capabilities
 - Technical Manuals
 - Technology Refresh



Summary

- M&S Fit for Autonomy and Robotics
- Production Alternatives
- Questions/Answers