

PORTFOLIO
ACQUISITION
EXECUTIVE
MMARINE
CCORPS



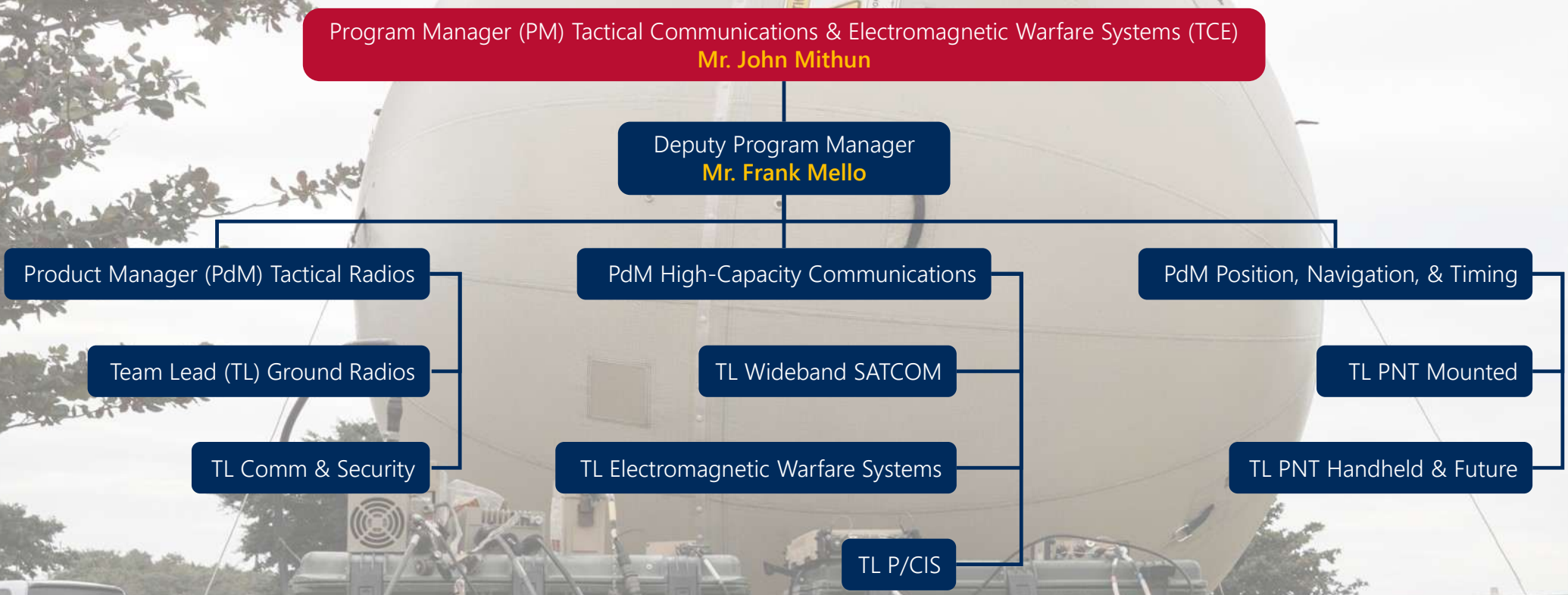
**Program Manager
Tactical Communications &
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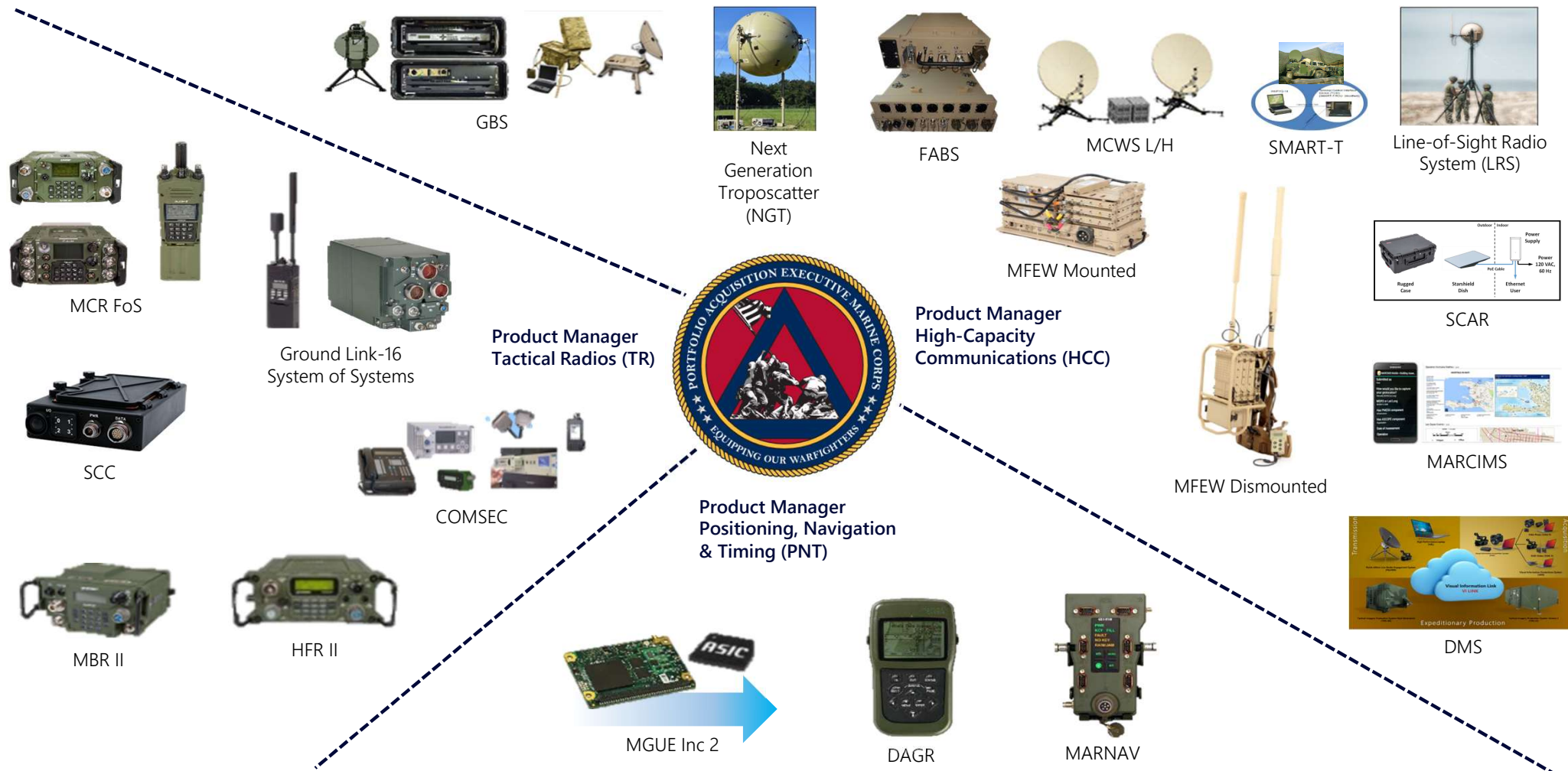


ORGANIZATION & MISSION

MISSION: Transform the way Marines communicate and fight in the Electromagnetic Spectrum



PM TCE SYSTEMS PORTFOLIO OVERVIEW





MOSA APPROACH TO ELECTROMAGNETIC WARFARE

MOSA will enable PMs within PAE Marine Corps rapid modernization capability

- ▲ Modularity at HW & SW levels through adherence to open industry standards & SW containerization
- ▲ Any HW components can evolve w/requirements to maintain peer threat parity/superiority w/o recapitalization of entire system (more processing power, increased frequency range, evolving cryptography to meet NSA's CM2 & Quantum Resistance goals)
 - Contrast w/Radio Cryptographic Modernization – in a MOSA environment, only the Cryptographic Subsystem would need replacement
 - Contrast w/M-Code PNT challenges for Tactical Radios – MOSA M Code Cards available today vs significant integration challenges (performance, cost, schedule) for tactical radios
- ▲ The SW components easily transition to new HW baselines through containerization
- ▲ Sizeable SWaP reductions w/shared chassis, network switching, amplifier & power resources
- ▲ Transition opportunity/pipeline for a multitude of S&T efforts
- ▲ Government owned IP & baseline aligned to USMC priorities drastically reducing vendor lock





NOTIONAL PLATFORM SWaP IMPLICATIONS



Current Systems
Modular System



Embedded C2 Systems



Software Defined Radio (Comm)



Crypto Sub-System (TSVCIS, HAIPE, CSfC)



M-Code PNT



Ultra Wideband Software Defined Radio (EW)



POM 28
Initial Radio Capability: FY30



Significant Reduction in SWaP when compared to legacy, individual system installation while adding flexibility/capability



AREAS WHERE INDUSTRY CAN HELP

▲ The US Marine Corps is conducting market research and experimentation to inform acquisition strategy to modernize ground Electromagnetic Warfare (EW) capabilities employed throughout the FMF to provide:

- Coordinated EW in support of Fires and Maneuver (Electromagnetic Attack)
- Force Protection (Electromagnetic Protection)
- Battlespace Awareness / Spectrum Management (Electromagnetic Support)

▲ *Vision:* Family of networked systems in an open architecture environment based on non-proprietary hardware and software using modular chassis variants with diverse plug-in card loadouts and enabling peripherals.

▲ *Opportunities*

- Proof of concept complete EW system, demonstrating viability as a (C5ISR)/Electromagnetic Warfare (EW) Modular Open Suite of Standards (CMOSS)/Sensor Open Systems Architecture (SOSA) compatible EW successor to the MFEW system.
- AI/ML for threat identification and mitigation, defeat protocol development, library/catalogue solutions
- Lead integrator approach
- SWaP reduction (VNX+, Nano)
- "SOSA" peripherals (amplifiers, antennas, radioheads, etc.)
- RF distribution & Simultaneous Rx/Tx





AREAS WHERE INDUSTRY CAN HELP



The US Marine Corps requires resilient, reliable, and secure PNT capabilities for effective operations in GPS-denied environments. The current reliance on GPS creates unacceptable risks, necessitating the acquisition of M-Code capable GPS receivers and alternative PNT solutions.

Focus Areas:

- ▲ M-Code Mounted and Handheld Solutions
- ▲ Anti-Jam/Anti-Spoof antennas/receivers
- ▲ Embedded GPS Solutions
- ▲ Alternative Navigation / Non-GPS Solutions
- ▲ Inertial Navigation Systems / Inertial Measurement Units
- ▲ CMOSS-compliant / SOSA compliant cards / common chassis
- ▲ Military GPS User Equipment Increment II
- ▲ Technology Readiness Levels/ Prototype status of capabilities

QUESTIONS?



EQUIPPING OUR



WARFIGHTERS