The USMC M1A1 Tank Fleet
Alone and Unafraid in 2020
Agenda

• Mission
• Current Fleet Disposition
• Current Configuration
• Next Generation Improvements
USMC M1A1 Mission

To provide combat power in the amphibious assault and subsequent operations ashore, utilizing maneuver, armor protected firepower, and shock action to disrupt, disorganize, and destroy the enemy.
PM Tank Systems Mission

To equip operating forces with effective sustainable tank, heavy recovery, assault bridging, and support systems to accomplish their warfighting missions; and to incorporate next-generation technologies to ensure their continued combat dominance.
Current Fleet Disposition

- 403 Tanks Distributed Throughout the World
  - Active
  - Reserves
  - Maritime Preposition Ships (MPS)
  - Iraq
- MPS requires at least three years to complete any upgrades due to ship rotation schedule
USMC M1A1 Tank Fleet
CONUS Units and Locations

A 4
Camp Pendleton
San Diego, CA

B 4
Yakima, WA

C 4
Boise, ID

D 4
Moreno Valley, CA

E 4
Fort Knox, KY

F 4
Camp Lejeune, NC

1
29 Palms, CA

2
Camp Lejeune

3
Jacksonville, FL

MPS
Current Configuration

- M1A1 Tanks built in 1991 had the finest technology 1975 had to offer
- Almost entirely analog technology
  - Many sub components no longer made
- Virtually all upgrades require independent solutions
  - Require additional cables and displays for each new capability
Obsolescence Mitigation

- Power Distribution Box (PDB)
- Digital Turret Networks Box (TNB)
- Reprogrammable Computer Electronics Unit (CEU)
- Digital Hull Networks Box (HNB)
- Sidecar Embedded Diagnostics (ED) 15 total in tank

- Obsolescence Mitigation

- Sidecar Embedded Diagnostics (ED) 15 total in tank
Alone and Unafraid in 2020

• Possible that USMC will be only DoD user of M1A1s between 2015-2020
• Will leave USMC with a few foreign customers to continue to sustain M1A1
• Need to economically deal with obsolescence while continuing to upgrade
• May need to consider international partnering to mitigate developmental costs
Next Generation Improvements

• Weight reduction
  • Lightweight armor
  • Cable reduction (current cables ~2 tons)
• Obsolescence mitigation critical
• Insertion of open architecture to support
  • 3rd GEN technologies
  • Application of FCS technologies
  • Active Protection Systems
• Integrated cooling/heating solution
An Expanding Marine Corps

- Increase of 44 tanks as part of USMC expansion to 202,000 active duty Marines
  - Two additional active tank companies ($2 \times 14 = 28$)
  - 16 additional tanks for maintenance pool
- Will increase USMC acquisition objective to 447 tanks from 403
Anyone Home?

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