

U.S. Marine Corps (Ground) Liaison Report

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dme
CORPORATION

USMC ATE Overview



- AN/USM-657 - Third Echelon Test System (TETS)
- AN/USM-717 - Virtual Instrument Portable Equipment Repair/Test (VIPER/T) System
- AN/USM-718 - Ground Radio Maintenance Automatic Test System (GRMATS)
- Future Test Activities

USMC ATE Systems



- AN/USM-657 - Third Echelon Test System (TETS)
 - 228 systems
 - 25 Core (Analog/Digital)
 - 165 RF
 - 38 EO
 - Upgrades in process (from VIPER/T program)
 - Instrument Controllers (replacement) – 228
 - Power Distribution Units (replacement) – 144
 - Synchro/Resolver Simulator (added capability) – 26
 - Field locations
 - Supporting USMC MEFs, MAWs, Depots and Maintenance Centers



USMC ATE Systems



- AN/USM-717 - Virtual Instrument Portable Equipment Repair/Test (VIPER/T) System
 - 127 VIPER/T Systems total ordered to date
 - 45 RF
 - 44 RF/EO
 - 38 EO
 - 62 VIPER/T Systems delivered to date
 - 19 RF
 - 33 RF/EO
 - 10 EO



USMC ATE Systems



- AN/USM-717 - VIPER/T (Cont'd)
 - Systems provided as GFE for development
 - Picatinny Arsenal – New Jersey
 - 3 RF Systems
 - TPS Development for M1A1 CCAs and LAV-25 A2 LRUs
 - General Dynamics Land Systems – Tallahassee, FL
 - TPS development for Expeditionary Fighting Vehicle LRUs
 - » Factory Level to field deployable TPSs
 - Fleet fielding scheduled to start in February 2009

USMC ATE Systems



- AN/USM-717 - VIPER/T (Cont'd)
 - Retrofit Kits for legacy TETS
 - Instrument Controllers – New laptop, docking station and Windows XP-based operating system with modified system software
 - 228 modification kits ordered
 - 20 kits delivered
 - Power Distribution Units - New single box PDU with modified system software
 - 144 turn-key kits ordered
 - 42 kits delivered
 - Synchro/Resolver Simulators - NAI Synchro/Resolver Simulator VXI card and cables with modified system software
 - 26 kits ordered
 - First delivery in Jan 2009

Platforms/TPSs



- Current platforms supported by TETS and/or VIPER/T
 - AN/MRC-142 Mobile Radio Terminal Set
 - AN/TPQ-46A Firefinder Radar
 - AN/TPS-59 3D Radar Set
 - AN/TPS-63 2D Extended Range Radar (out of service) – G/ATOR to replace
 - AN/TRC-170 Radio Terminal Set
 - AN/TWQ-1 Avenger (out of service)
 - AN/TYQ-23 Tactical Air Operations Module
 - LAV-25 Light Armored Vehicle 25mm Turret LRUs
 - LAV-AD Light Armored Vehicle Air Defense
 - TOW II System and Missile Guidance Set
 - AN/PAS-22 Long Range Thermal Imager

Platforms/TPSs



- Current platforms in development on TETS and/or VIPER/T
 - LW155 Light Weight 155mm Cannon LRUs
 - Currently in development on TETS (w/VIPER/T IC retrofit) by Picatinny
 - M1A1 CCAs and LAV-25 A2 LRUs
 - Currently in development on VIPER/T by Picatinny
 - DIM-36TH Marine Corps Thermal Optics System
 - Currently in development on VIPER/T by DME

Platforms/TPSs



- Future platforms to supported by TETS and/or VIPER/T
 - AN/PSM-117 additional TPSs
 - PAS-22, PAS-25 IWNS-I2, PAS-13 APS
 - AN/PSM-115 additional TPSs
 - AAV LRU/CCA Diagnostics
 - AN/TRC-170 enhancements
 - LAV A2, IP, AP and HUD
 - Enhanced Positioning Locating Reporting System (EPLRS)

AN/USM-718 - Ground Radio Maintenance Automatic Test System



- USMC MARCORSYSCOM Quantico
- Synopsis released 6 November 2008
- Test and diagnostic functions for both current and future software-defined, tactical radios
- ID/IQ contract with up to 700 units
- Two phase evaluation process
 - GRMATS demonstration unit required to advance to Phase 2

USMC Future Test Activities



- “2012” Tester - Future ATE System
 - Successor to TETS and VIPER/T
 - Smaller, lighter, new technology
 - Requirements generation in process
 - Reconfigurable for specific deployments
- EO Test Requirements
 - Joint Army – Marine Corps EO (JAMEO) effort to define requirements
 - Completed
 - Identifying requirements/solutions for small portable tester. Will use hand held optics (e.g. image intensifiers) as baseline candidates.
- Identifying requirements for a Cable Tester
 - On-vehicle testing of cable assemblies