



MAINTENANCE IN EXTREME ENVIRONMENTS & DEPLOYMENTS



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Agenda

- **Maintenance Challenges**
- **Communicating Maintenance Needs**
- **Transporting Maintainer**
- **Hot and Cold Weather Maintenance Support**
- **Protecting Maintainers**
- **Maintenance Support Enablers**
- **Prepositioned and Afloat Maintenance**

Maintenance Challenges

- CJTF-180
- Heater/ECU Malfunction Repair/Maintenance
- Accelerated Aviation Maintenance demands
- Vehicle preparation for severe heat and cold seasons
- Battery (ba5590) maintenance and replacement
- Power generator repair
- ROWPU maintenance
- Maintenance of stored equipment prepositioned and surface vessel stored (batteries, seals)
- CFLCC/CJTF-7
- M1, M2/3 track, track shoe, suspension arm assemblies, and transmission parts –CL IX-demand for long lead time parts
- Major system maintenance – Patriot, Q36/37 Fire Finder
- Maintenance demand for HETS, HEMTTS, RTCHS, 4K-RTF
- HMMWV tire demand
- Maintenance of Force Provider Modules, DFAC equipment, ice makers, ROWPUS, ECUS,
- Maintenance of stored equipment prepositioned and surface vessel stored



Communicating Maintenance Needs

Requirements:

- Communicate maintenance needs from supported units to EAD and EAC
- Connect with National Logistics Program (CONUS reach back)

Capabilities:

- Multimedia Communication Systems (MMCS) SIPRNET, NIPRNET
- Blue Force Tracking
 - 1200 BFT (Army, Marines, British)
- Movement Tracking System (Logistics awareness)
 - Systems installed in AOR
 - 19 Mar 03, 177 (4 USMC)
 - 13 Jun 03, 789

Success on the battlefield

LSE in coordination with AFSC establishes and maintains horizontal integration & coordination between AMC, AMC's MSCs, ASA (ALT)



A Common Operational and Logistical Picture in the Battlespace

Communicating Maintenance Needs



Requirements:

- **Communicate maintenance needs from supported units to EAD and EAC**
- **Connect with National Logistics Program (CONUS reach back)**

Multi Media Communications Systems (MMCS) Capabilities:

- **Secure and non-secure voice (48 phones), data, FAX, SIPR/NIPRNET, and non-secure video.**
- **System equipped with two secure Laptops; two 6.5KW generators; and one STE, copier, FAX, and printer.**
- **Secure video capability and IRIDIUM phones.**
- **Interoperable with Defense Switched Net Work (DSN) and Public Service Networks (PSN).**
- **Provides 24 hour, seven days a week service when deployed with two operators.**

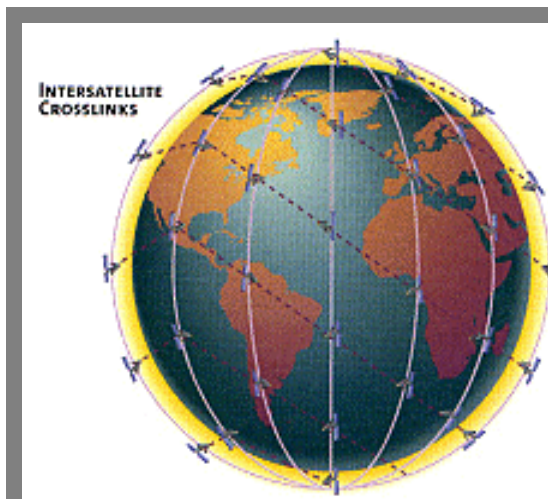
Communicating Maintenance Needs

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INMARSAT and Iridium Phones Capabilities:

- Satellite-based, wireless personal communications network, providing a robust suite of voice & data services to virtually any destination on the earth.
- Provide Non-Secure/Secure communications interface with MMCS suite.



Transporting Maintainers

Requirements:

- Efficiently and effectively move maintainers within the AOR
- Allow maintainers to access required areas and perform maintenance on de-centralized equipment located in austere environments

HMMWV, John Deere Gators, Non-Tactical Vehicles Capabilities:

- **HMMWVs**
 - 12,100 lb. GVW
 - 6.5 liter 190 hp turbo-charged engine
 - 2,300 lb. payload at GVW
- **John Deere Gator**
 - 18 HP, 3-Cylinder, 4 Stroke Diesel Engine, that can utilize either diesel or JP8
 - Automatic Transmission
 - 1250 lb Cargo Capability
 - 5 person transport capable
 - Airdrop certified, as well as sling load and internal carry
 - Capable of moving over soft ground, as well as utilizing run-flat tires
 - LSE uses: moving parts & supplies, carrying tools, and on-post transportation
- **Non-Tactical Vehicles**



Hot & Cold Weather Maintenance Support

Requirements:

- Environmental control for aviation and vehicle maintenance
- Ability to maintain equipment degraded by sand, wind, rain, snow, extreme temperature fluctuations and rough terrain
- Quality of Life for critical skills maintenance personnel

Aviation and Vehicle Large Area Maintenance Shelters (LAMS) Capabilities:

Aviation Shelter

- 192' long, 75' wide, 31' high
- Powered clamshell doors at both ends



Vehicle Shelter

- 122' long, 64' wide, 31' high
- Clamshell doors at both ends, one electrically powered
- Side personnel door



Hot & Cold Weather Maintenance Support

Requirements:

- Environmental control for aviation and vehicle maintenance
- Ability to maintain equipment degraded by sand, wind, rain, snow, extreme temperature fluctuations and rough terrain
- Quality of Life for critical skills maintenance personnel

Force Provider Modules Capabilities:

- Housing, Laundry, DFAC, Morale Welfare Recreation, Showers, Latrines



34 Sets – each housing 550ea personnel in locations throughout South West Asia

Hot & Cold Weather Maintenance Support

Requirements:

- Environmental control for aviation and vehicle maintenance
- Ability to maintain equipment degraded by sand, wind, rain, snow, extreme temperature fluctuations and rough terrain
- QOL for critical skills maintenance personnel



Specialized Teams Capabilities:

- Support to cold weather issues
 - H120/H80/ASH Series Heater/ECU Tiger Team in CJTF-180
 - Application and Maintenance of Cold Weather Kits and infrastructure insulation for Force Provider Modules
 - Technical Assistance Teams (TATs) for storm & weather damage to LAMS and Force Provide Modules
- Support to hot weather issues
 - ECUs / Air Conditioning/Reefer maintenance and repair
 - Ice production units repair and maintenance
 - ROWPU maintenance and repair
 - M1, M2/3 Track and Track Shoe repair
 - HMMWV Tire repair



Protecting Maintainers

Requirements:

- Protection of forward deployed MIL, DA Civilian, and Contractor personnel who provide logistics maintenance capabilities in austere, socio-political unstable, and hostile (to US Forces) environments
- Provide personal protective gear that meets the METT-C requirements
- Confront and meet challenge of evolving protection requirements
- Conform to direction of Army Chief of Staff

Personal Protective Gear Capabilities:

- The Interceptor Body Armor is a joint service item designed and developed to incorporate the requirements of the Army and Marines. This system was designed to replace the ISAPO and the Personal Armor System Ground Troops (PASGT) vests.



2ND CHANCE IBA



SAPI PLATE



IBA

Protecting Maintainers

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- Protection of forward deployed MIL, DA Civilian, and Contractor personnel who provide logistics maintenance capabilities in austere, socio-political unstable, and hostile (to US Forces) environments
- Provide personal protective gear that meets the METT-C requirements
- Confront and meet challenge of evolving protection requirements
- Minimize area access denial –thus impacting maintenance/logistics operations



ARMED ESCORTS

Armed Escorts, Chemical Defensive Equipment Capabilities:

- Armed escort requirements prescribed by Combatant Commander and initiated by supported units for each AOR (CFLCC/CJTF-7/CJTF-180)
- Chemical defensive equipment (CDE) issued to all maintainers through CRC-deployment process as prescribed by DoD and Combatant Commanders directives – CDE also provided in AOR through specialized procurements (as required)



CHEMICAL DEFENSIVE EQUIPMENT

Maintenance Support Enablers

AOAP

- Enhances Flight Safety
- Improves Equipment Readiness
- Extends Component Life
- Reduces Cost and Downtime
- Conserves petroleum resources



Candidate for outsourcing

20 Field Labs - 3 Depot Labs - 2 Mobile Labs

TMDE

- All weapons systems require calibration
- TMDE support integral part of DS/GS mission
- 97 % of TMDE calibrated/repared in AO



Maintenance Support Enablers

SERVICE CENTERS

HMMWV Service Center

- Emerging capability being established at LSA Anaconda, Balad, IZ – Nov-Dec 04
- Services ranging from Direct Support (DS) type – to – limited Depot repairs

HMMWV Refurbishment

- Initial capabilities being established at Arifjan, Kuwait Nov-Dec 04
- Service will be similar to General Support (GS) level

SUPPLY INITIATIVES

- Tire Assemblies
- Unit “pure packs”



Maintenance Support Enablers

FORWARD REPAIR ACTIVITIES

- Aviation Depot Maintenance Roundout Unit - ADMRU (NG)
- Mast Mounted Sight Team
- Team Armor Partnership (TAP)
- Electronic Sustainment Support Center (ESSC)
- Intelligence Electronic Warfare (IEW) Regional Support Center
- Mobile Subscriber Equipment Regional Support Center
- Communications Security Logistics Activity
- Software Engineering Center
- Ammunition Maintenance

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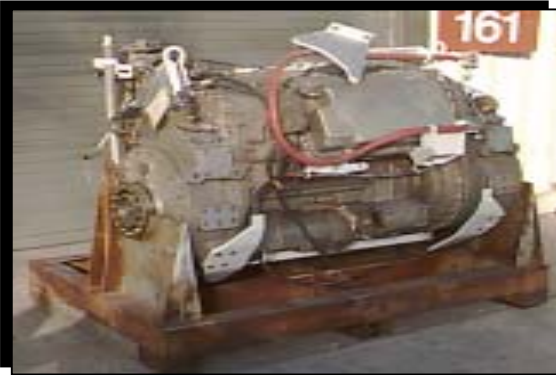
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Maintenance Support Enablers

SPECIAL REPAIR TEAMS

... Mission Driven – On Demand



**Transmissions
TACOM Depot**



**Generators
DA Civilians**

**LAMS
Contractor
Setup/TAT**

**RTCH
Kalmar
Contractor**



**Heater Team
DA Civilians**

