



Two Level Maintenance

DoD Maintenance Alignment in the 21st Century:

Cross Boundary Maintenance

DoD Maintenance Symposium

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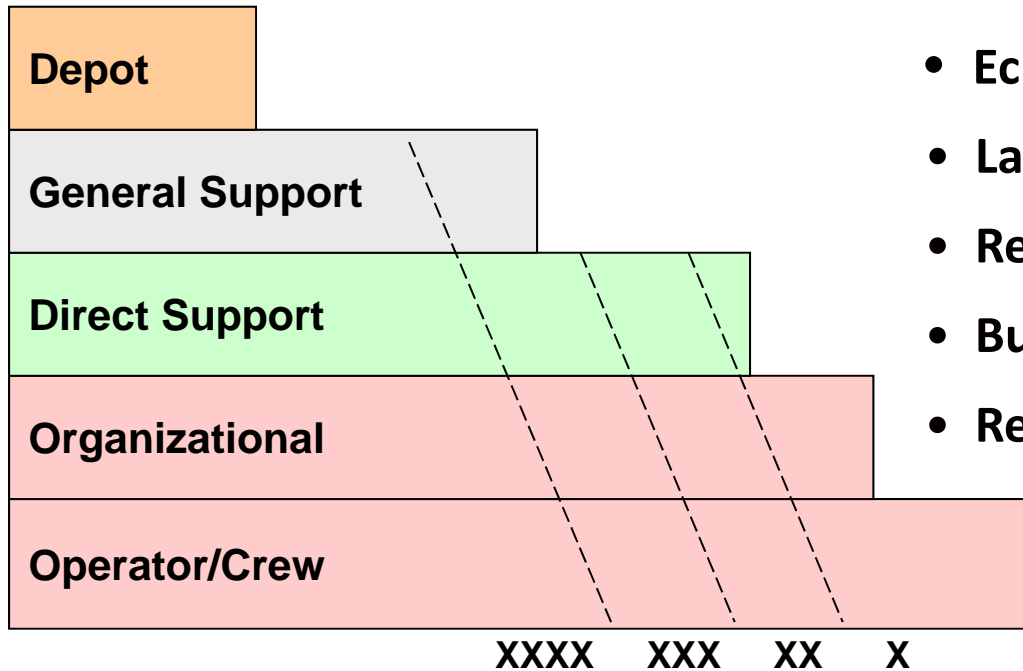
Agenda

- ❑ Historical Background
- ❑ Four-Level Maintenance Doctrine
- ❑ Four-Level / Two-Level Maintenance Comparison
- ❑ Two-Level Maintenance Actions
- ❑ Benefits of Two-Level Maintenance
- ❑ Maintenance Functions Distribution
- ❑ Maintenance Allocation Chart Format Change
- ❑ Soldier Military Occupational Specialty Consolidation
- ❑ Summary



Four-Level Maintenance Doctrine (1940s – 2000)

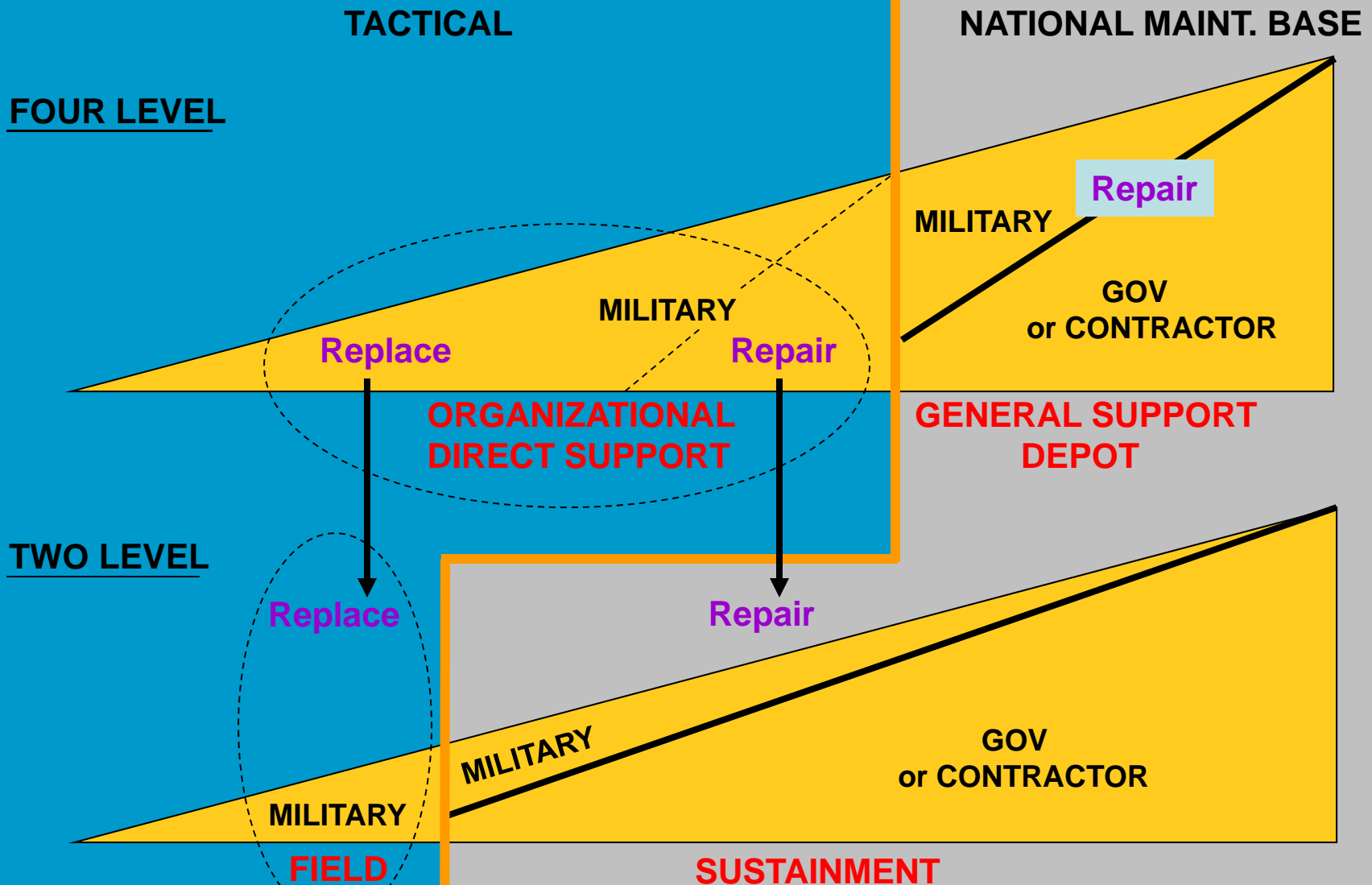
WW II Korea Vietnam Desert Storm



- Echeloned maintenance
- Large logistics footprint
- Relies on evacuation systems
- Built-in overhead burden
- Requires backup maintenance support

Problem... Legacy Four Level Maintenance System had built in duplication and redundancies...

Maintenance Functions Distribution





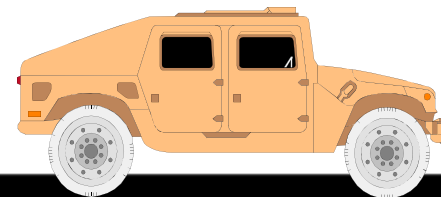
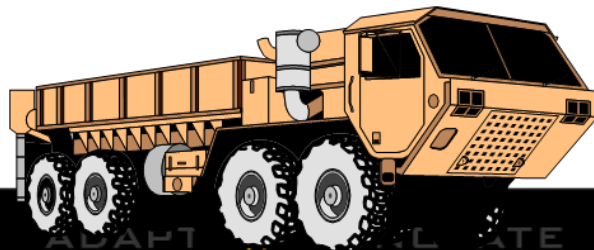
Two-Level Maintenance Actions

Field Maintenance Actions

- On-System
- Plug & Play
- Fewer Actions Requiring Tools
- Crew Level Maintenance Tasks
- Typical **Replace** Tasks:
 - Replace Starter
 - Replace Winch
 - Replace Electronic Module
 - Replace Geared Hubs
 - Replace Engine
 - Replace Transmission

Sustainment Maintenance Actions

- Off System
- Disassemble / Assemble
- Repair to National Standards
- Requires Wide Variety of Tools
- Typical **Repair** Tasks:
 - Repair Starter
 - Repair Winch
 - Repair Electronic Module
 - Repair Geared Hubs
 - Replace Engine
 - Replace Transmission





Benefits of a Two-Level System

- Maintenance support unit to be co-located with the serviced unit (In the same facility in garrison)
- Equipment availability time (readiness) to increase.
- Army retrograde pipeline inventory investment to be reduced
- Reduced Logistics Footprint
- Increased Flexibility and Depth of Capabilities
- Leverages “Replace Forward – Fix Rear” equipment designs, Embedded Diagnostics & Prognostics, and CBM+.
- “Pit Stop” maintenance to be enabled.

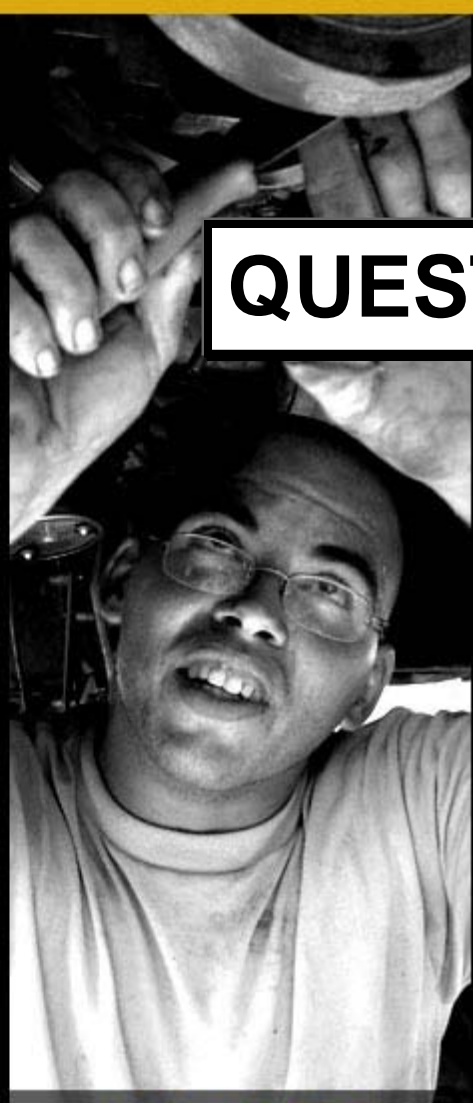


Summary

- ❑ Two-Level Maintenance improves readiness, streamlines the maintenance process , and saves overhead costs
- ❑ No loss of capability
- ❑ Reduces the retrograde pipeline
- ❑ Consolidates Military Occupational Specialties that can perform both Organizational and Direct Support tasks
- ❑ Already documented at Brigade Combat Teams and below



ANTICIPATE



INNOVATE



ADAPT



QUESTIONS?



ALWAYS READY





Benefits of a Two-Level System

- ✓ Fewer maintenance echelons
- ✓ Eliminates duplication of work
- ✓ Reduced logistics footprint
- ✓ Takes advantage of expected improvements in Reliability, Embedded Diagnostics & Prognostics
- ✓ Significant reduction in procedural steps/people

<u>Actions</u>	<u>4 Level</u>	<u>2 Level</u>
# of steps updating forms and records	47	10
# of people the evacuation process flowed through	10	4
# of people that verified the fault existed	5	3
# of people that validated the work order was filled out correctly ..	5	2
# of total steps in the process	78	27



Four Level Maintenance System

Depot



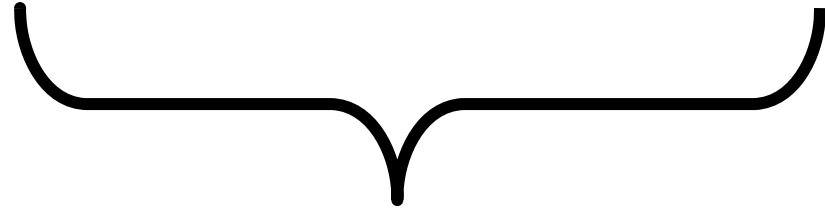
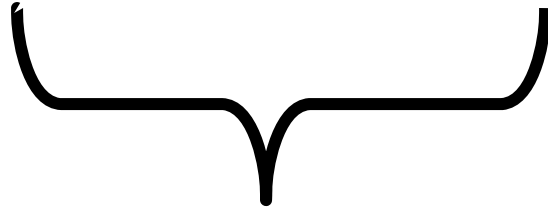
General Support



Direct Support



Unit



Sustainment



Field

Two Level Maintenance System