



Future Tactical Truck System (FTTS)



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Strategic Landscape



- Army Transitioning to a Fighting Force
 - All the “ilities”
 - Less Support “Smaller Logistical Footprint”
- Scarce Recourses “\$”
 - FCS getting the lions share
 - CSS Community paying a large price

**Nearsightedness
Will Cause a
Train Wreck
Down the Road!**

**We Must Focus Our Limited R&D Resources
On High Payoff Initiatives**



From The Army G-4



- **We must challenge Defense Contractors and their engineers to design systems that meet tough requirements.**
 - Self reporting
 - No vehicles that get less than 30 mpg
 - No reparables
 - No spares
 - No Systems w/o embedded diagnostics/prognostics
- **Future systems must be built with ultra reliable components that require minimal preventive maintenance, and when maintenance is required repairs and services are easily and quickly performed.**
 - No special tools
 - No external TMDE
 - MTBF > Duration of pulsed operations
- **We may have to pay up front for such “Ultra-reliable” systems, but our future warfighting concepts depend on them. If systems don’t perform as advertised, there should be penalties.**

“Significant reduction in the logistics footprint and costs will occur when reliability, maintainability, And fuel efficiency are effectively balanced with Cost, Schedule and Performance”



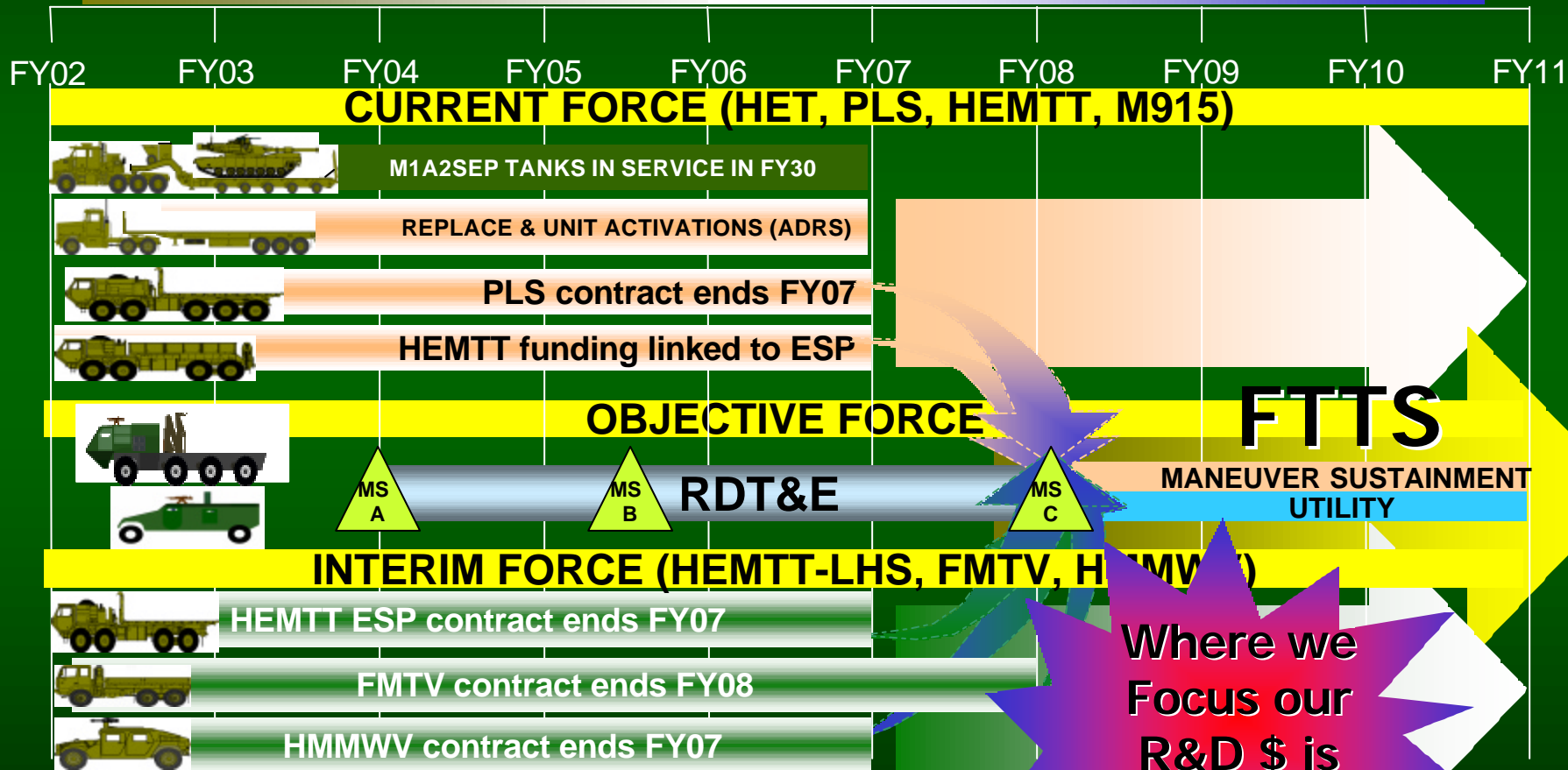
TACTICAL WHEELED VEHICLE VISION



FY 03

OBJECTIVE

TRANSITION FROM FY03 TO OBJECTIVE FORCE



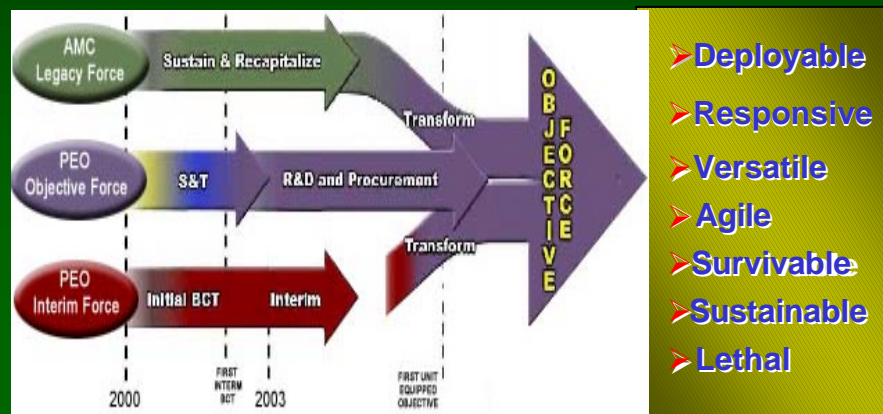
GOAL: REDUCE MEDIUM & HEAVY FLEET TO ONE



The Need for FTTs



Transformational Changes



Theme: "Reduced Logistics Footprint"

Responsiveness

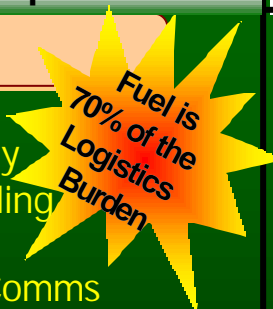
Current TWVs:

- Less than 10% have Comms Capability
- Average range is 300 miles w/o refueling

FTTs:

- Imbedded C4ISR will provide 100% Comms with the Warfighter in the UoA
- Fuel Efficiency will increase range 100-200% allowing fluid distribution over greater operational distances (600 – 900 miles) w/no increase in tank capacity

Increased Range thru fuel efficiency and dynamic movement tracking



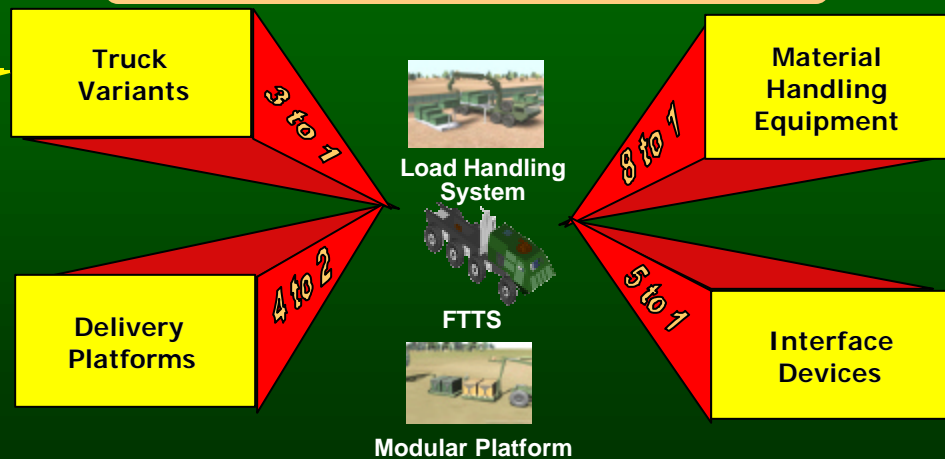
Deployability

SBCT CoC Transportability Findings:

- >5 hrs to remove/Install S280 Shelters
- >1 hr to remove/install ring mounts
- Added an additional 45 Light Cranes (MHE)
- 144 TWVs required MHE for C-130
- Long RSOI times
- TWVs C-130 deployable w/o loads

C-130 Roll-on/Roll-off w/load

Versatility



Seamless Distribution System



The Need for FTTS



Agility

Cross Country
HEMTT 16 mph
FTTS 24 mph

ROI
=50%

Faster Throughput

Sustainability

FCS / FTTS Pure Fleet

System	# UA Platforms	# FSB Mechs
FCS	431	18
FTTS	U-150 MS-200	14
Totals	781	32

FCS w/ Current Fleet mix

FCS	61 more Vehicles	431	43 more Mechanics	18
Current Fleet		411		57
Totals		842		75

*Current Fleet = (HMMWV, FMTV, HEMTT)

Commonality = Reduction in Log Foot Print

Survivability



HEMTT

79.5%

84%

FTTS
w/APS

98%

FTTS
w/armor

Essential in Support of the OF

Technology Analysis

- ~50% improvement in cross country speeds (DADS)
- 10-46% improvements in mission speed ratings (NRMM)
- 18-36% improvement in survivability (VCAM)
- ~ 60% reduction in supply time (Smart Distribution)
- ~70% reduction in load reconfiguration time (Smart Distribution)
- Fuel efficiency increase 30 to 50% (further advances needed)

Analysis Supported Requirements



FTTS CONCEPTS



Sustainability

Lethality

Deployability

Versatility

Agility

Responsiveness

**O
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Survivability

DESCRIPTION:

The FTTS-UV is a multi-purpose tactical truck family based upon a common chassis design.

MISSION:

Provides light TWV support to the Unit of Action (UA) and the Unit of Employment (UE) in terms of C2, system support platform, and unit mobility.



~ 150 FTTS-UV
Per UoA

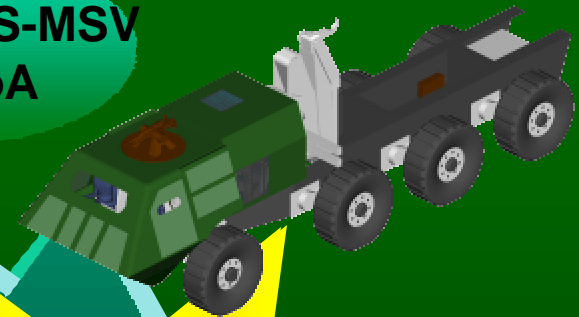
DESCRIPTION:

The FTTS-MSV is a multi functional, multi proponent single tactical truck family based upon a common chassis design.

MISSION:

Provides direct support to Unit of Action Brigades in terms of transportation and distribution of cargo, equipment, and personnel.

~ 200 FTTS-MSV
Per UoA



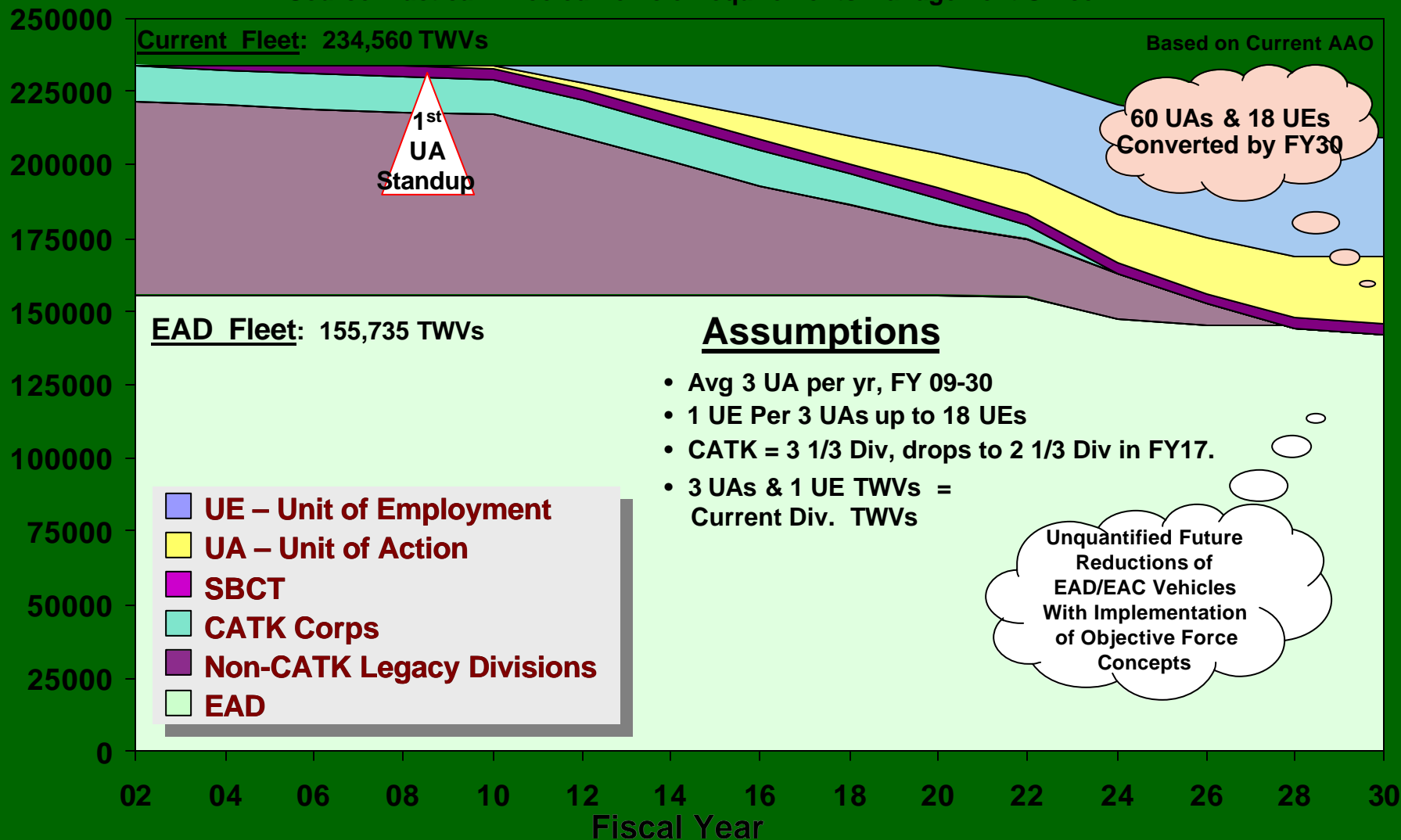
Two fleets promote:
Reduction in Logistics Footprint
Commonality among fleets



TWV Fleet Transformation



Source: Tactical Wheeled Vehicle Requirements Management Office





Roll-Up



Sustainability

- Reliability – MTBF > duration of Pulsed Operations
- Maintainability – Self-reporting, no special tools, No TMDE, and No Spares

Agility

- Higher Mobility Rated Speed: 50% increase
- Must be able to go where

FCS goes and bypass built up
Areas to deliver support

Lethality

Versatility

- Advanced Load Handling
- Interchangeable/Intermodal Operation
- On Board Power & water Generation
- Deliver integrated, common, formed Packaging

Responsiveness

- Greater Fuel Efficiency 100 - 200%
- Dynamic Movement Tracking and Re-routing
- Greater Range 600 – 900 miles
- Integrated C4ISR

Deployability

- C130 Roll on/Roll off w/load
- Ready to support off the ramp
Without vehicle preparation or
Transportability waivers

Survivability

- Designed upfront to
Provide Time Definite and
Assured delivery

ORD Starting Point



Comments

