



# 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 reparable
  - 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”**



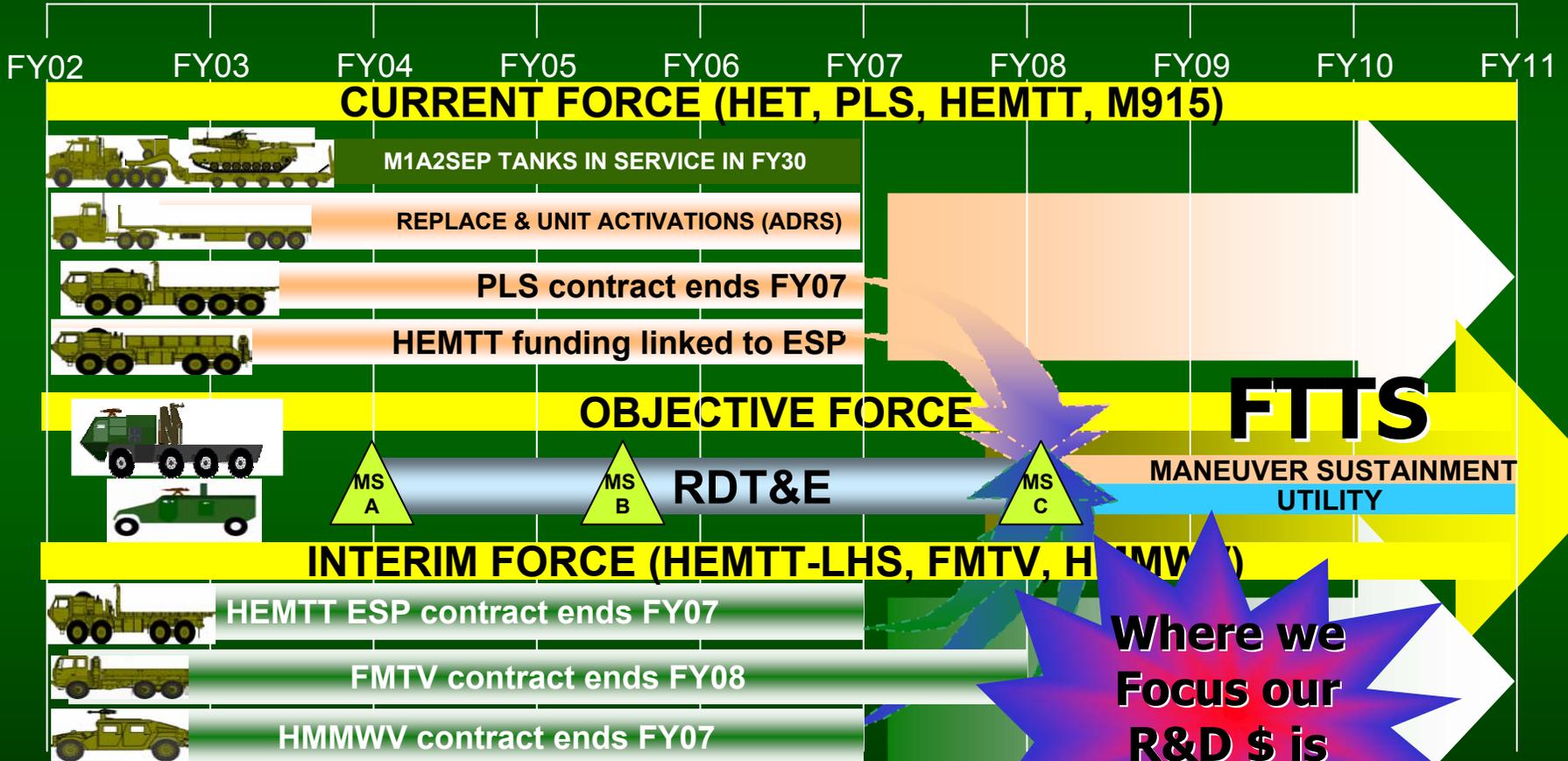
# TACTICAL WHEELED VEHICLE VISION



**FY 03**

**OBJECTIVE**

TRANSITION FROM FY03 TO OBJECTIVE FORCE



**Where we Focus our R&D \$ is Critical**

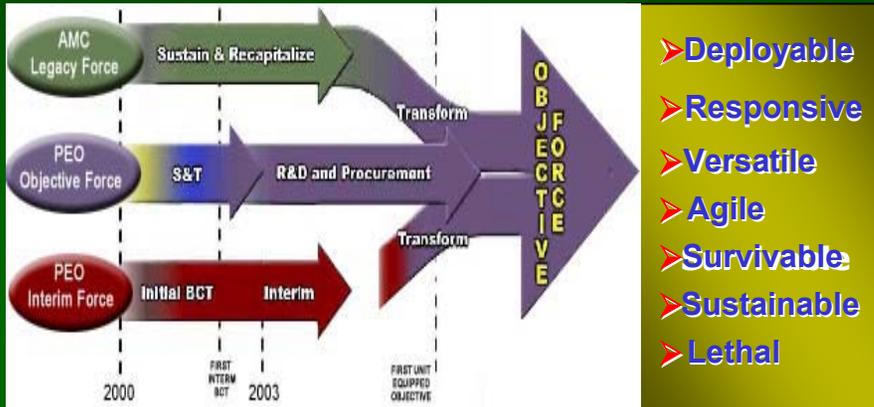
**GOAL: REDUCE MEDIUM & HEAVY FLEET TO ONE**



# The Need for FTTS



## Transformational Changes



- > Deployable
- > Responsive
- > Versatile
- > Agile
- > Survivable
- > Sustainable
- > Lethal

Theme: "Reduced Logistics Footprint"

## 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

## Responsiveness

### Current TWVs:

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

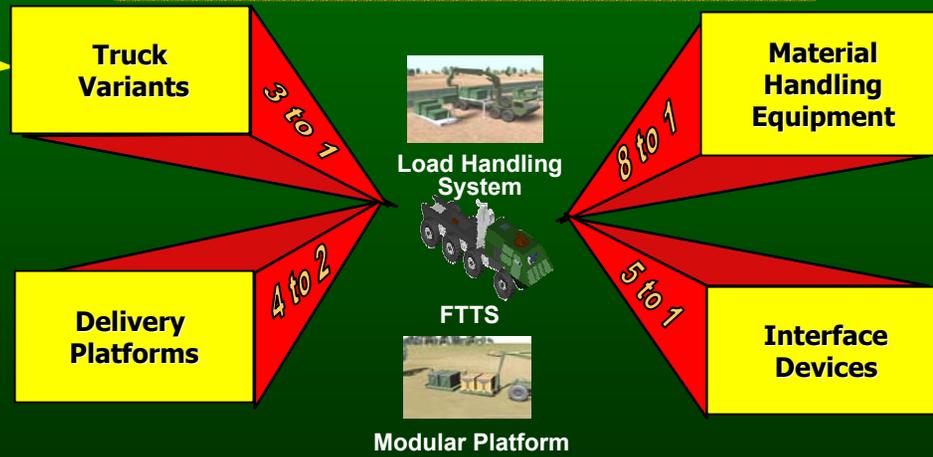
### FTTS:

- 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

Fuel is 70% of the Logistics Burden

Increased Range thru fuel efficiency and dynamic movement tracking

## 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
<b>Totals</b>	<b>781</b>	<b>32</b>
FCS w/ Current Fleet mix		
FCS	61 more Vehicles	43 more Mechanics
Current Fleet	431	18
Current Fleet	411	57
<b>Totals</b>	<b>842</b>	<b>75</b>

\*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



## 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.

## 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.

~ 200 FTTS-MSV  
Per UoA



~ 150 FTTS-UV  
Per UoA



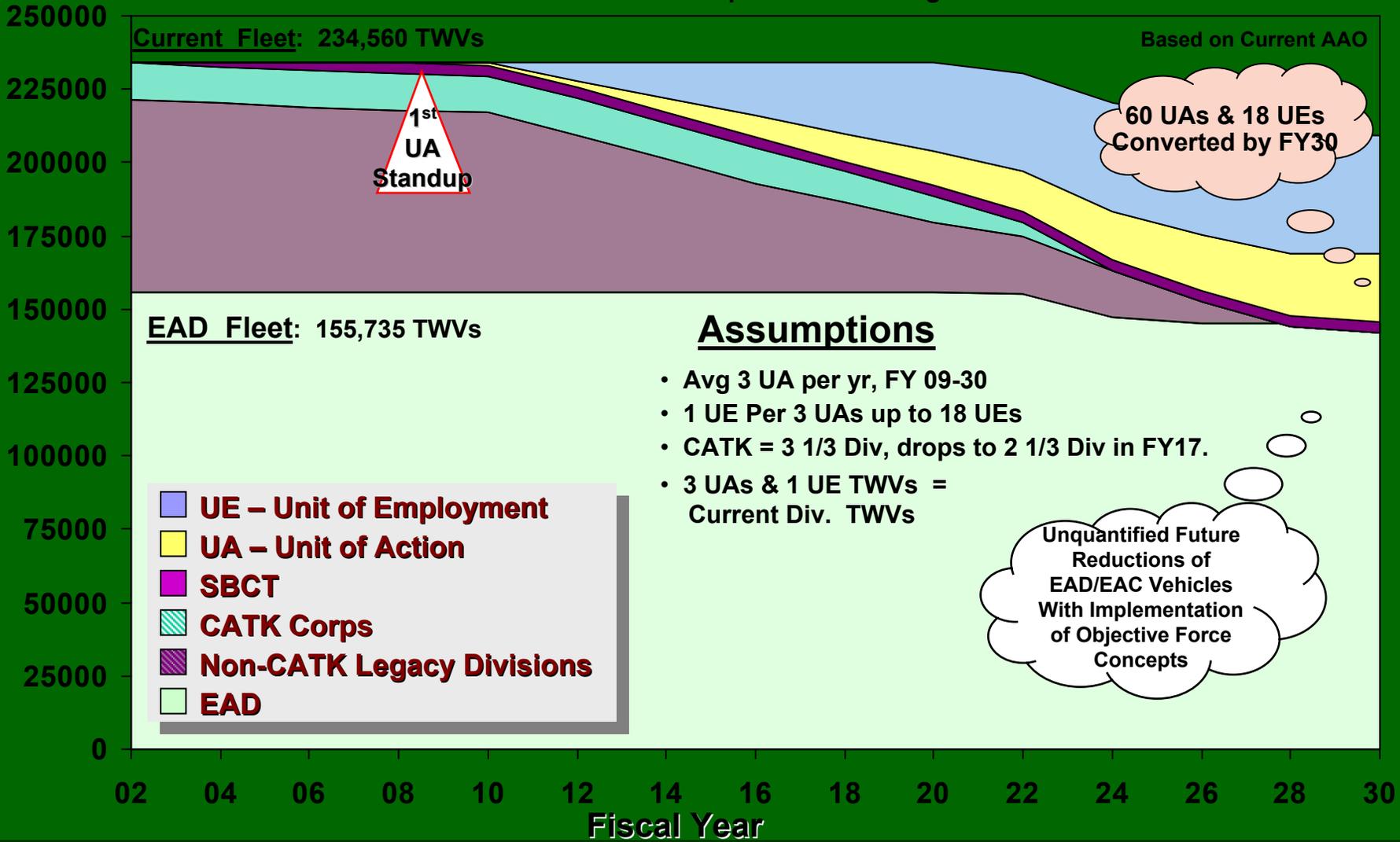
Two fleets promote:  
Reduction in Logistics Footprint  
Commonality among fleets



# 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



## 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

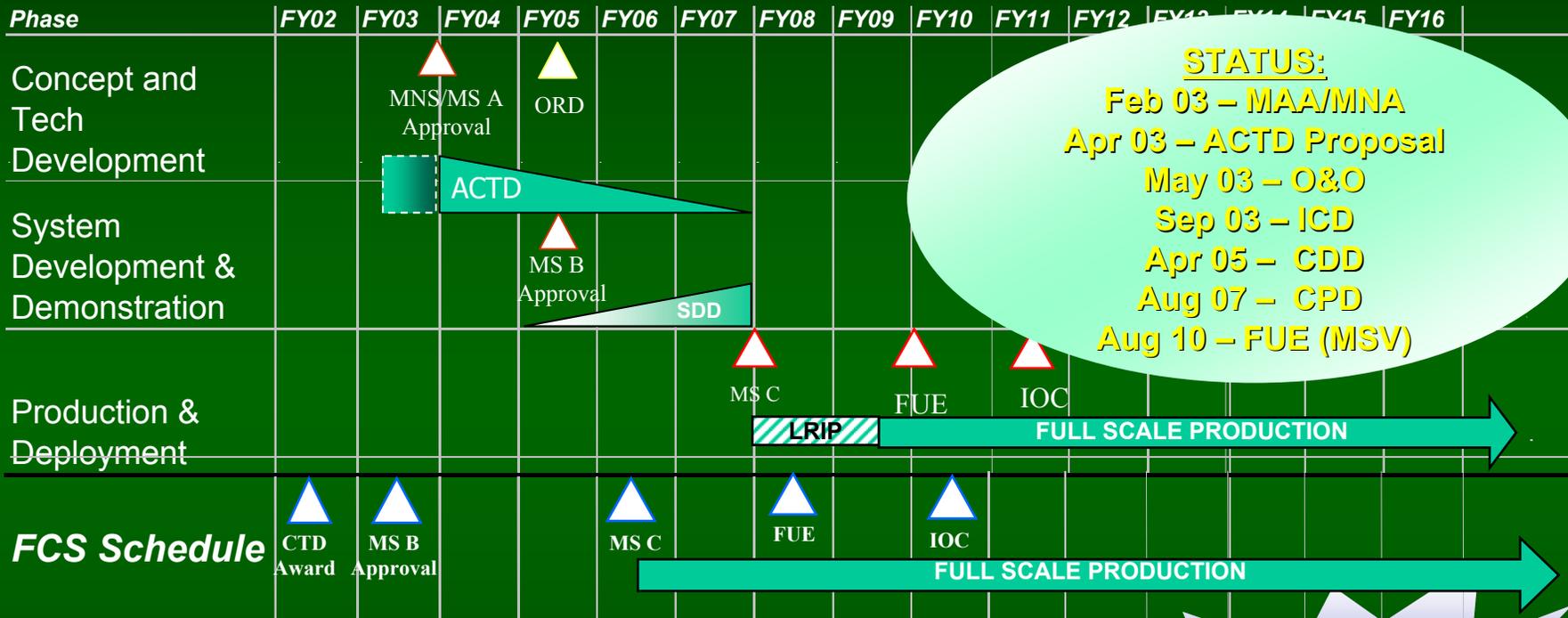
## Responsiveness

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

**ORD Starting Point**



# Transition Schedule



**FTTS-UV Schedule currently 4 years behind FTTS-MSV with procurement funding Beginning in FY12**

**Reduces Acquisition Risk for the PM**

**Proposed ACTD can accelerate the PM's schedule by one year**



# Comments

