



# Joint Program Office Mine Resistant Ambush Protected Vehicles



Presented by  
Dave Hansen  
Joint Program Manager



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# Purpose

## ❖ Overview of the MRAP Program

- Historic
- Programmatic

## ❖ Ongoing Priorities

- Fielding
- Upgrades



# The Problem



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# JPO MRAP Cornerstones

**SECDEF Memo  
2 May 2007**

- ❖ “The MRAP program should be considered the highest priority Department of Defense acquisition program...”
- ❖ “...any and all options to accelerate the production and fielding of this capability to the theater should be identified, assessed and applied where feasible.”
- ❖ “...the urgency of the situation ...requires that we thoroughly examine all options to put as much of this enhanced capability in the hands of our troops as rapidly as reasonably possible.”



**OSD TASK  
Force Charter**

“Directing that a Department-wide task force be formed to **integrate planning, analysis, and actions to accelerate** over the next year the **acquisition** of as many MRAPs as is **possible and prudent**”

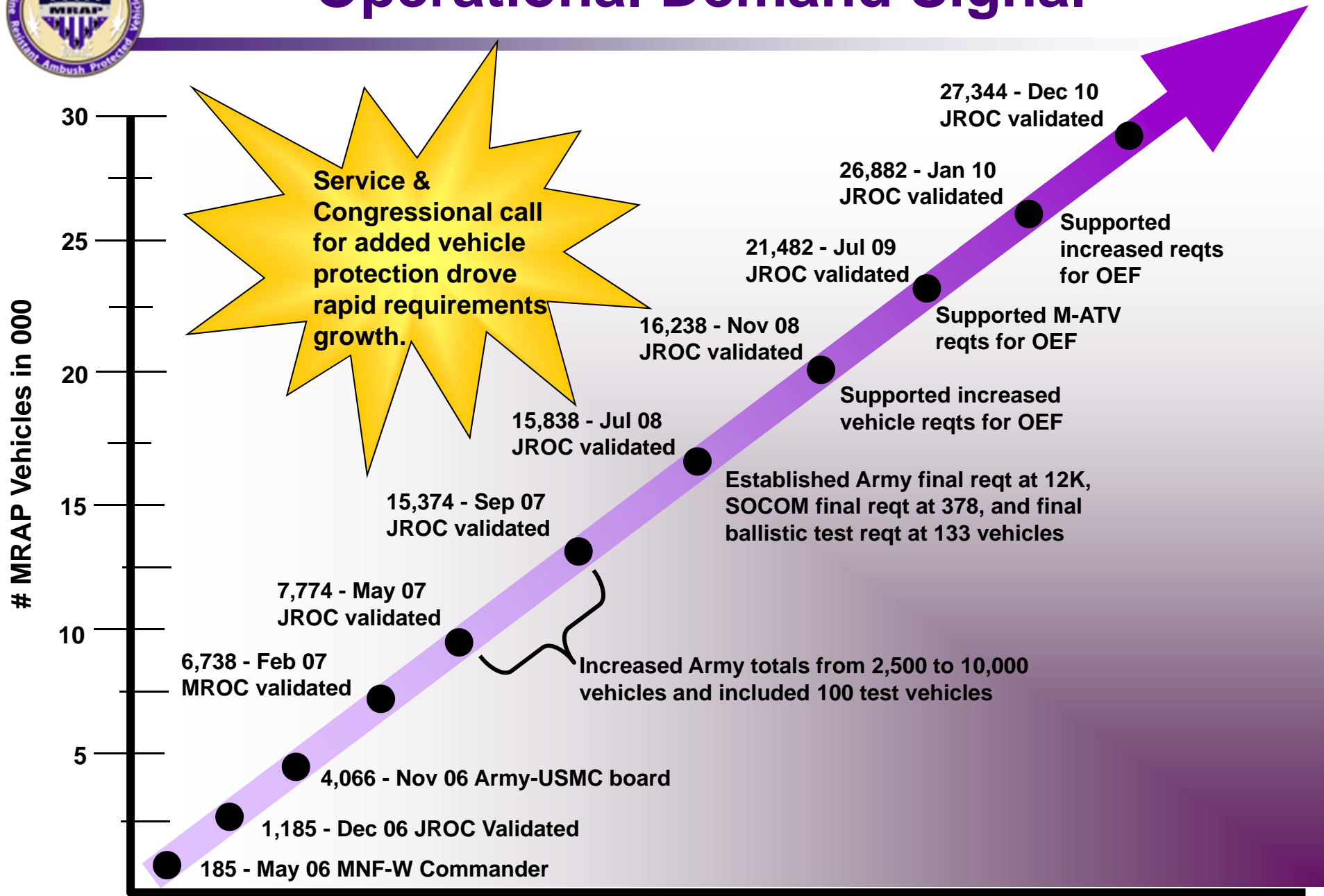
Secretary Gate’s Memo dated 30 May 2007

**“Speed is of essence”**

***Accelerated Production to Maximum Capacity by Adding Additional Vehicle Variants to Meet CENTCOM Requirements Faster***



# Operational Demand Signal





# Program Response

## Program Imperatives

- ❖ Streamlined Acquisition Process
- ❖ Speed to Produce
- ❖ Multiple Variants
- ❖ Urgent Fielding
- ❖ Evolutionary Development of Variants
- ❖ Adaptive Support

## Tradeoffs Considered

- ❖ Deliberate Developmental Program
- ❖ Single Producer
- ❖ Sequential, Lock-step Testing
- ❖ Full Organic Support
- ❖ Technical Data Package

**Delivering Survivable,  
Fully Capable  
Vehicles that Save  
Lives...**



**...With Speed and Urgency!**



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# MRAP Snapshot

- ❖ **DoD's Largest \$ Program in FY10**
  - Larger than the Missile Defense Agency
- ❖ **~26,512 Vehicles Procured in Less Than 3 Years**
  - Concurrent Production, Testing, and Fielding
- ❖ **~21,200 Vehicles Fielded to Warfighters in Theater**
- ❖ **Operational Readiness Remains >90%**
- ❖ **~\$44B Total Appropriated Through FY10**
  - OCO Supplemental Funding
- ❖ **20 LRIP Decisions and Counting**
- ❖ **90+ Contracts, 6 OEMs, 100+ Variants**
- ❖ **M-ATV Variant Developed for OEF**
  - Fielded 5 Months After Production Award
- ❖ **Rapidly Responded to Urgent CENTCOM need for MRAP Recovery Vehicle (MRV)**
  - Awarded Contract Mod within 4 days of Receiving LRIP ADM Amendment
- ❖ **Up to 20 Items of GFE Integrated Per Vehicle**
  - SPAWAR Charleston Integrating Upwards of 45 M-ATVs per Day



# MRAP Vehicle Variants

As of December 2010 **Draft**

OSH KOSH  
M-ATV



MRAP All Terrain Vehicle

FPI  
Buffalo



Buffalo 6x6 (H1-13)



Buffalo 6x6 (H14-25)



Buffalo 6x6 A1 (H65-239)



Buffalo 6x6 A2 FAT

FPI  
Cougar

## CAT I Cougars



Cougar 4x4 Platform



Cougar 4x4 HEV



Cougar 4x4 ENGR



Cougar 4x4 CAT I AO



Cougar 4x4 IBPM



Cougar 4x4 LSB



Cougar 4x4 A1



Cougar 4x4 A2 ECP



Cougar 4x4 RT



Cougar 4x4 ISS

## CAT II Cougars



Cougar 6x6 Platform



Cougar 6x6 HEV



Cougar 6x6 EOD



JERRV 6x6 ENGR



Cougar 6x6 Sole Source



Cougar 6x6 Surge



Cougar 6x6



Cougar 6x6 A1 IBPM



Cougar 6x6 A1



Cougar 6x6 ISS

BAE  
RG-33



RG-33 CAT I



RG-33 CAT I SOCOM



RG-33 CAT I SOCOM



RG-33L CAT II



RG-33L CAT II HAGA



RG-33L CAT II Plus w/ EFP



RG-33L Plus CAT II HAGA



USSOCOM CAT II Armored Utility Variant



SOCOM CAT II Armored Recovery Variant



RG-33 CAT I Base Upgraded/ISS

ODS - C  
RG-31



RG31 A0 CAT I Route Clearance



RG31 A1 S CAT I SOCOM



RG31 A2 CAT I w/OGPK MkSE



RG31 A2 CAT I w/MEAP Armor



RG31 A2 CAT II MkSE



RG31 A3 CAT I Prototype Truck



RG31 A3 CAT I w/CROWS II



RG-31 A3 CAT I MkSEM



RG31 A12 CAT I SOCOM



RG31 A3 /ISS CAT I SOCOM

Navistar  
MaxxPro



MaxxPro CAT I



MaxxPro CAT I w/MEAP



MaxxPro Plus CAT I



MaxxPro Plus CAT I Ambulance w/EFP



MaxxPro Plus CAT I Ambulance



MaxxPro Plus CAT I w/EFP



MaxxPro DASH CAT I



MaxxPro DASH CAT I w/ISS



MaxxPro XL CAT II



MaxxTow Wrecker

BAE - TVS  
CALMAN



Calman CAT I (Test Only)



Calman CAT I



Calman CAT I w/MEAP



Calman CAT II



Super Calman CAT I w/Bar Armor



Super Calman CAT I MRAP II



Calman Plus CAT I w/MEAP



Calman Plus Ambulance



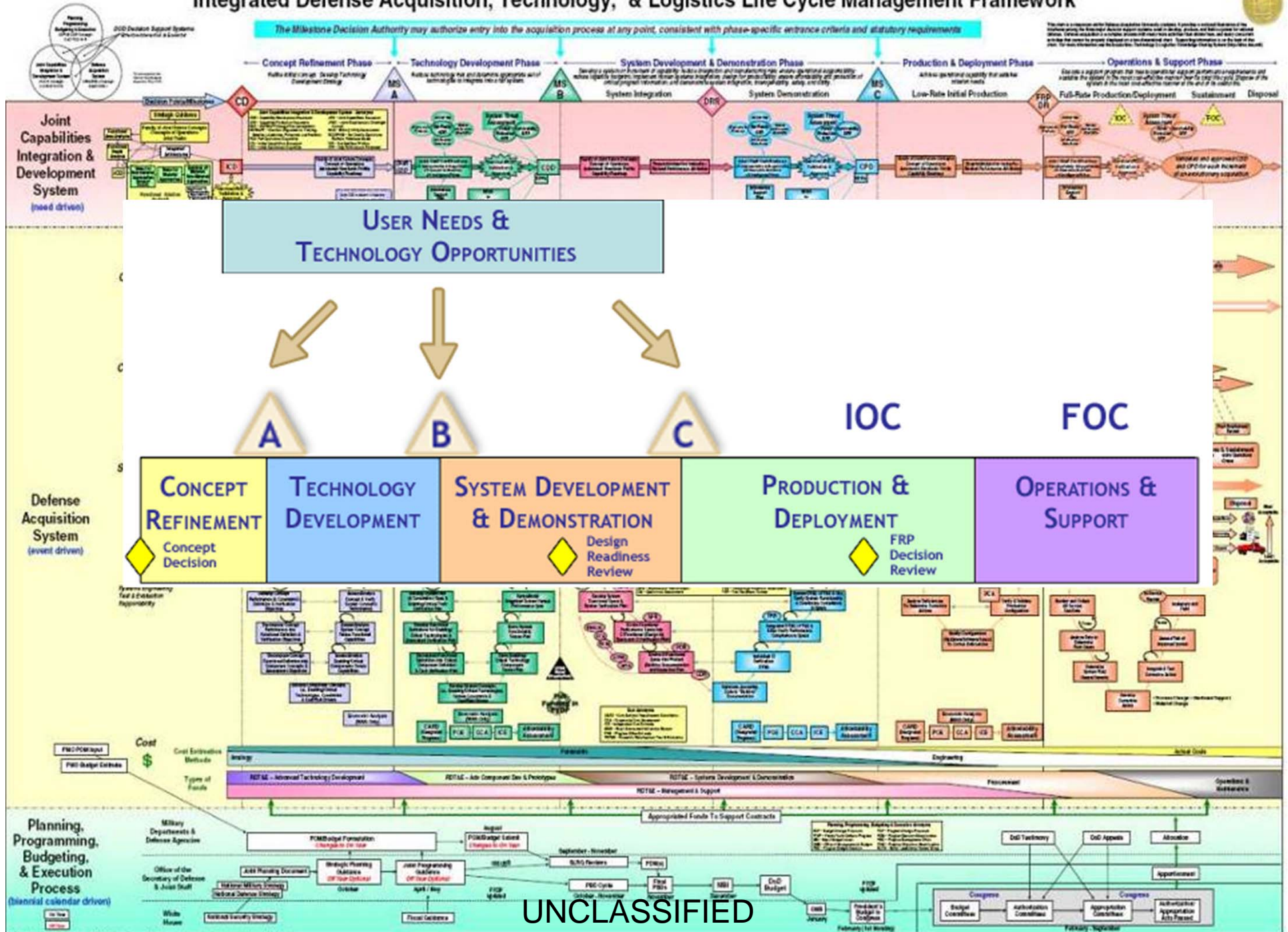
Calman Plus C2OTM

FMS Cases



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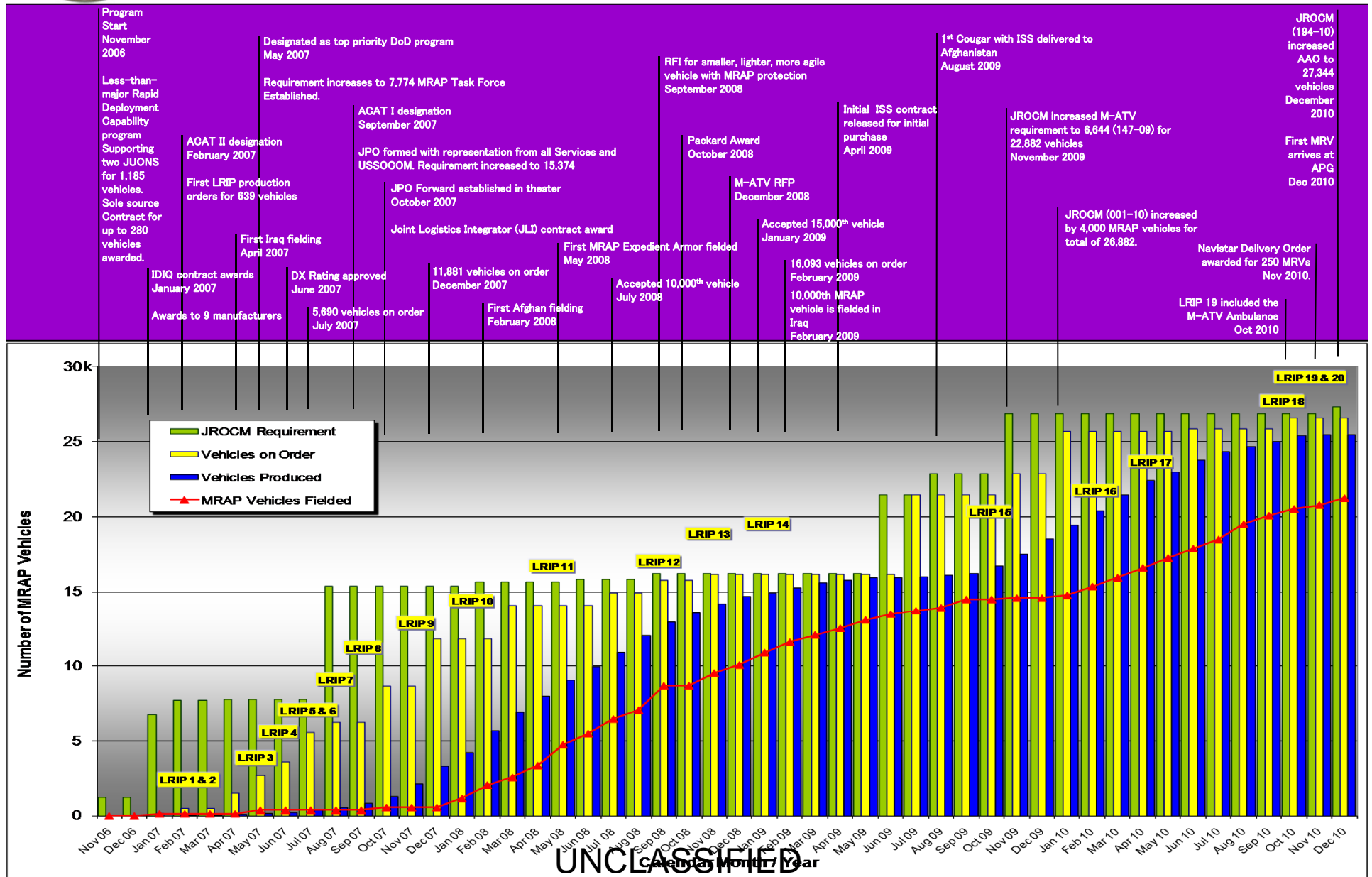
# Integrated Defense Acquisition, Technology, & Logistics Life Cycle Management Framework



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# Mission In Motion - Cumulative





# The MRAP Team - Sustainment

## ❖ Services and Components

- USMC
- USA
- USAF
- USN
- SOCOM

## ❖ Service Logistic Commands

## ❖ Warfighters

### Original Plan

**7,774**  
Vehicles on Order

- Centralized Fielding
- Centralized Support Requirements
- 90 Day Parts Block

+

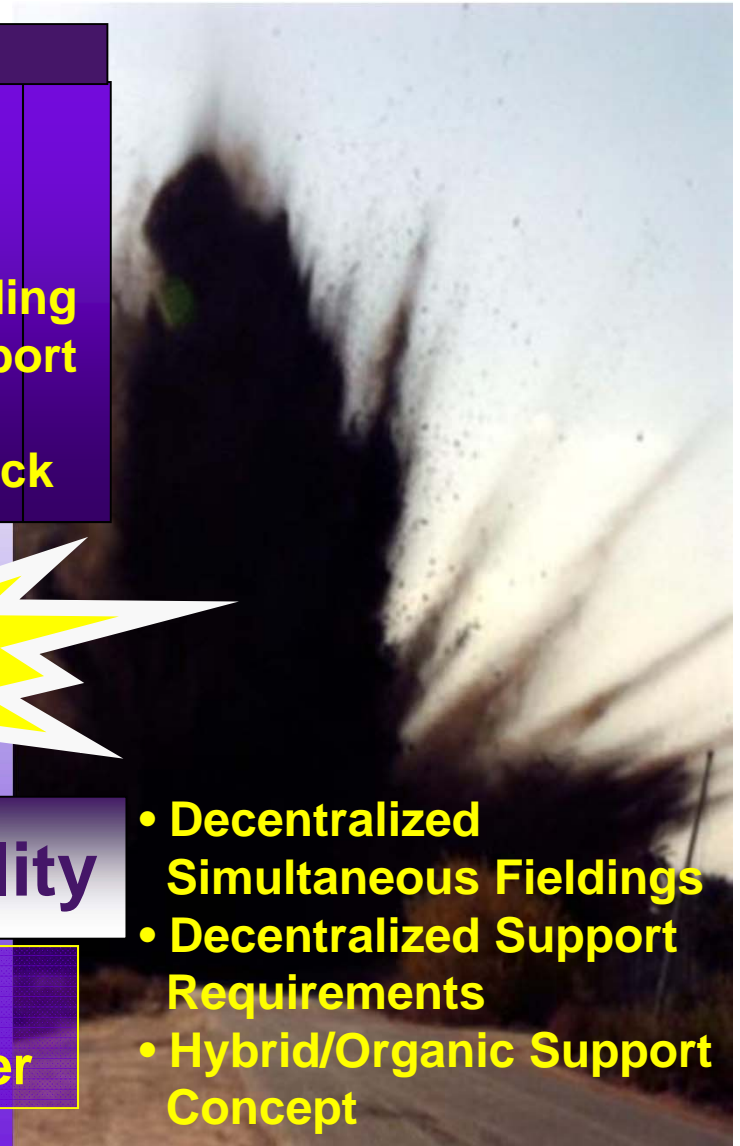
Warfighter Feedback  
and Lessons Learned

=

**Current Reality**

**26,560**  
Vehicles on Order

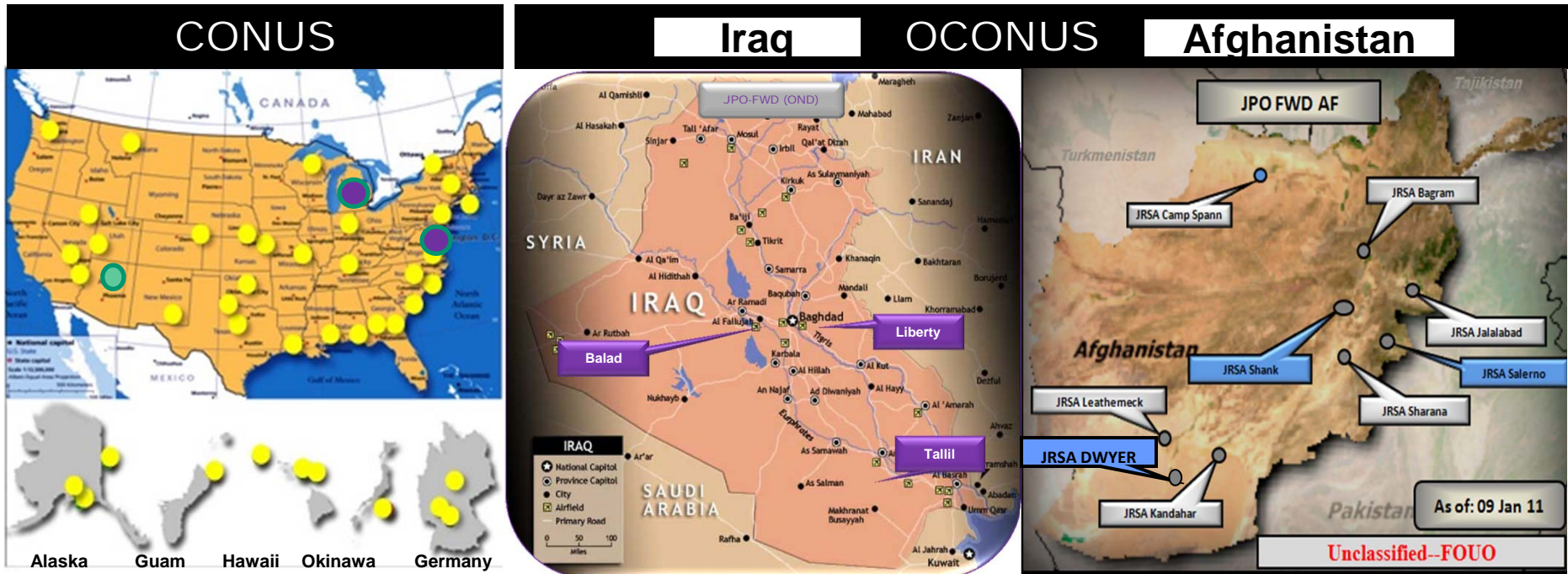
- Decentralized Simultaneous Fieldings
- Decentralized Support Requirements
- Hybrid/Organic Support Concept





# JPO Enterprise

MRAP Enterprise-*Multiple Locations, Single Focus!*



MRAP Functional Area	Locations
JPO MRAP	Quantico/Stafford, VA; Warren, MI
Test Facilities	Aberdeen, MD; Yuma, AZ; Huntsville, AL
Logistics Support	Albany, GA; Barstow, CA; Red River, TX
Regional Support Activities	Throughout Iraq, Afghanistan
MRAP Support Facility	Kuwait

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# IRAQ

## Mission Priorities

- ❖ Responsible Drawdown
- ❖ Sustainment / BDR
- ❖ RG-33 ISS
- ❖ C2OTM

## Way Ahead

- ❖ MRAP Fleet Retrograde
- ❖ RSA Parts / Equipment Retrograde
- ❖ Personnel Reductions
- ❖ Est. Mission Complete Dec 11



*Maintain continuous support to Warfighter*

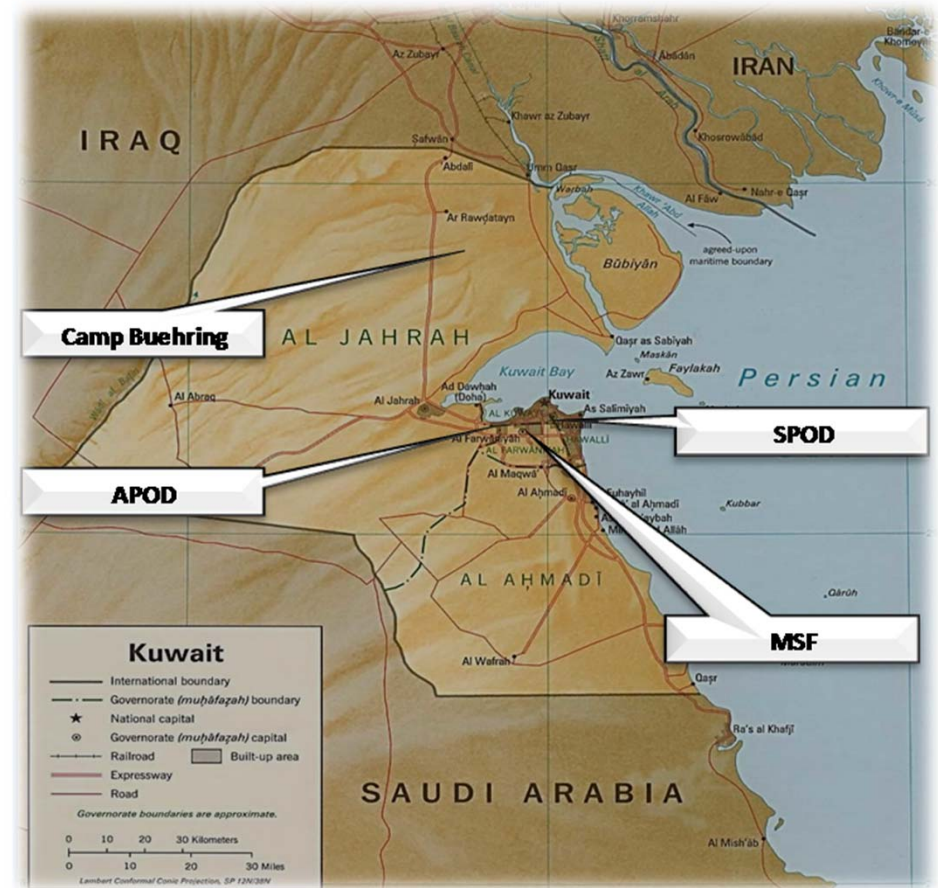
**Ramping Down**



# Kuwait/PM Forward

- ❖ MRAP Sustainment Facility (MSF) Operations
  - CENTCOM Priorities
    - APS-5
    - HAAB
    - Coalition
  - Caiman MTV
  - Theater Sustainment Stocks
- ❖ Camp Buehring
  - RIP/TOA Training
  - Sustainment Operations
- ❖ Theater Operations Center
- ❖ Retrograde

*Maintain Flexibility*



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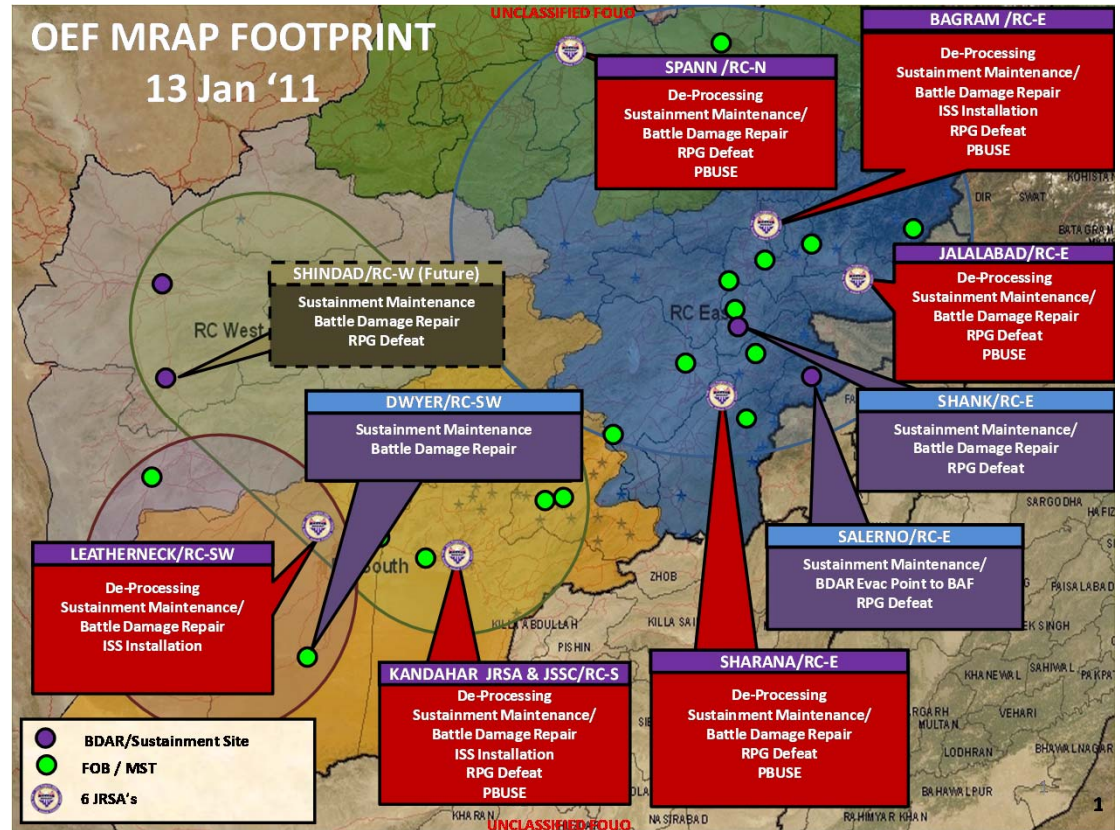
# Afghanistan

## Mission Priorities

- ❖ BDR / Sustainment
- ❖ Safety / Survivability
- ❖ Recovery
- ❖ Maneuverability
- ❖ Deprocessing

## Way Ahead

- ❖ Facility Infrastructure Build-up
- ❖ RSA / FOB Expansion
- ❖ Expeditionary Maintenance



*Speed of response to support  
the Warfighter*

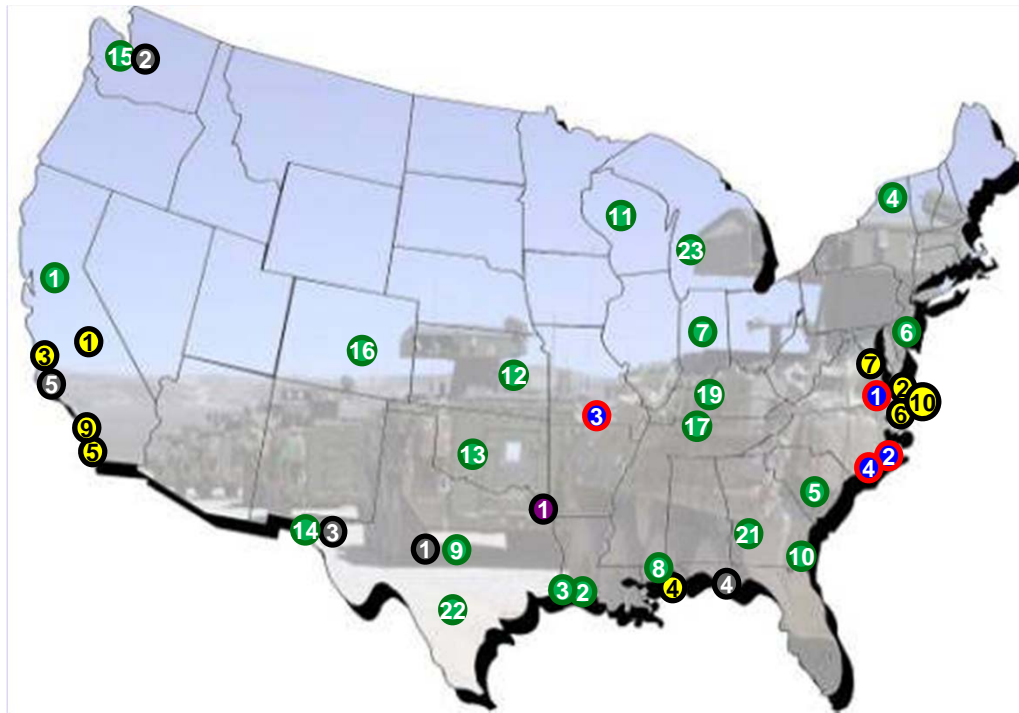
**Ramping Up**

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# Joint Services MRAP/M-ATV HST Fielding Locations



United States (CONUS)



Alaska

Guam

Hawaii

Okinawa

Germany

- ① NTC (Irwin)
- ② JRTC (Polk)
- ③ Ft. Polk
- ④ Ft. Drum
- ⑤ Ft. Bragg
- ⑥ Ft. Dix
- ⑦ Ft. Atterbury
- ⑧ Ft. Shelby
- ⑨ Ft. Hood
- ⑩ Ft. Stewart
- ⑪ Ft. McCoy
- ⑫ Ft. Riley
- ⑬ Ft. Sill
- ⑭ Ft. Bliss
- ⑮ Ft. Lewis
- ⑯ Ft. Carson
- ⑰ Ft. Campbell
- ⑱ Ft. Schofield
- ⑲ Ft. Knox
- ⑳ Ft. Richardson
- ㉑ Ft. Benning
- ㉒ Ft. Sam Houston
- ㉓ TACOM

- ① China Lake, CA
- ② Ft. Story, VA
- ③ Port Hueneme, CA
- ④ Gulfport, MS
- ⑤ North Island, CA
- ⑥ Little Creek, VA
- ⑦ Indian Head, MD
- ⑧ Kaneohe, HI
- ⑨ Coronado, CA
- ⑩ Tidewater Norfolk
- ① I MEF(Pendleton)
- ② II MEF(Lejeune)
- ③ MTIC (FLW)
- ④ LOS (Lejeune )
- ① Ft. Hood
- ② Ft. Lewis
- ③ Ft Bliss
- ④ Tyndall, FL
- ⑤ Port Hueneme, CA
- ① MRAP U

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# Initiatives

## ❖ Independent Suspension Systems (ISS)

- Responds to Terrain and Conditions in OEF
- Increases Speed, Capability Off-Road

## ❖ Survivability Upgrades

- RPG Defeat Technology
- Blast mitigation technologies (seats and floor mats)
- M-ATV Underbody Improvement Kit

## ❖ Caiman MTV Chassis Upgrade

## ❖ Cougar CAT II and M-ATV Ambulance Variants

## ❖ MRAP Recovery Vehicle

- Provides winch, lift, tow capability with MRAP survivability
- LUE planned for early 2011

## ❖ Improved Turret Drive System (ITDS)

- Allows integration of Overhead Protective Cover to OGPK
- One-for-one bolt in replacement for Battery Powered Motorized Traversing Unit (BPMTU) in OGPK

## ❖ Rollover Detection Warning System (RDWS)

- Provides advanced warning of hazardous conditions
- Applicable across fleet





# Priorities

## ❖ **Fielding**

- **ISS (Independent Suspension System) Upgrades – Cougar, RG-31, RG-33, MaxxPro, Caiman**
- **MRAP Recovery Vehicle**
- **New production vehicles**

## ❖ **Ambulances**

## ❖ **Readiness – All Variants**

## ❖ **Rightsizing Capacity of Theater Facilities**

- **Kuwait – MRAP Sustainment Facility (MSF)**
- **OEF (Multiple Sites)**

## ❖ **Defining Upgrades and Retrofits for Enduring Fleet**



# Army MRAP Sustainment Challenges

- ❖ **Need DP147 Enduring Requirements to determine MTOE vs Training base vs APS vs Divestiture. Determined by G-3 & G8**
- ❖ **Availability of MRAPs for shipment back to the states and available capacity to ship**
- ❖ **Configuration baseline set by AR2B GOSC**
- ❖ **Full material release requirements and timeline to complete**
- ❖ **Facility requirements to store and maintain MRAPs at CONUS based installations**
- ❖ **CONUS training strategy and usage rates established by TRADOC**
- ❖ **Transition requirements from theatre provided equipment (TPE) to unit ownership**



# MRAPs Evolve



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# Questions?



**Questions (on the content)....?**