



RDECOM



TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

Fuel Efficiency Demonstrator (FED)

Paul F. Skalny
Director
17 April 2008

- **Background & Goals**
- **Technical Objectives**
- **Baseline**
- **Key Points**
- **Website Information / Areas of Concentration**

- Initiated by the Office of the Secretary of Defense (OSD) to address energy conservation needs highlighted by the Energy Security Task Force.
- Overarching goals:
 - Demonstrate military vehicle technologies that reduce fuel consumption on the battlefield.
 - Reduce our dependence on oil.

The 2001 Defense Science Board Report *"More Capable War Fighting Through Reduced Fuel Burden"* and 2008 report *"More Fight – Less Fuel"* can be located at www.acq.osd.mil/dsb/reports.htm

- **Demonstrate a tactical vehicle with significantly greater fuel economy than an M1114 HMMWV.**
- **Integrate emerging fuel efficient technologies to demonstrate designs for the next generation of military trucks.**
- **Utilize early stage, higher risk/higher payoff technologies to attain the most fuel efficient vehicle possible.**

Performance:

- **M1114 Up-armored HMMWV**
- **Must perform at GVW with defined payload**
- **Minimize automotive performance degradation**



Fuel Economy and Consumption:

- **Peace and wartime operations**
- **Drive cycle being derived from current military operational profiles**

- **Industry Day will be hosted by TARDEC in July 2008.**
- **Subject Matter Experts from Government, Industry and Academia will participate in three technology exchange and brain storming sessions to be held in the Greater Detroit Region.**
- **Participants from outside the federal government may receive compensation for support during technology exchange sessions.**
- **Two ways for industry to get involved:**
 - **Submit fuel efficient technologies for review**
 - **Indicate interest to be considered as part of the Government/Industry team**

If interested in technology submission and/or consideration for team participation, send contact info to: tardec.fedteam@us.army.mil

Technology areas:

- Powertrain
- Alternative Materials
- Engines
- Auxiliary Power/Electrical Loads
- Fuels and Lubricants
- Chassis/Suspensions
- Systems Integration/Thermal Management