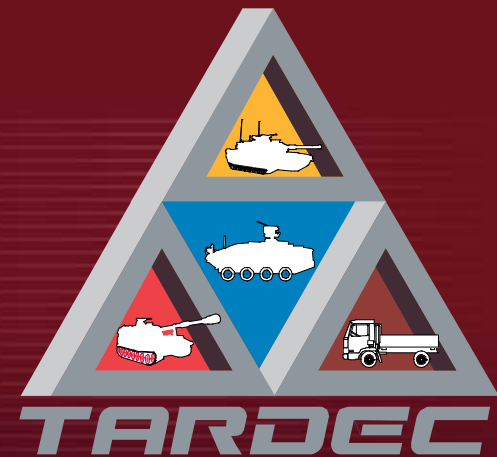




**RDECOM**



**TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.**

CAST Robotic Follower Overview

# Report Documentation Page

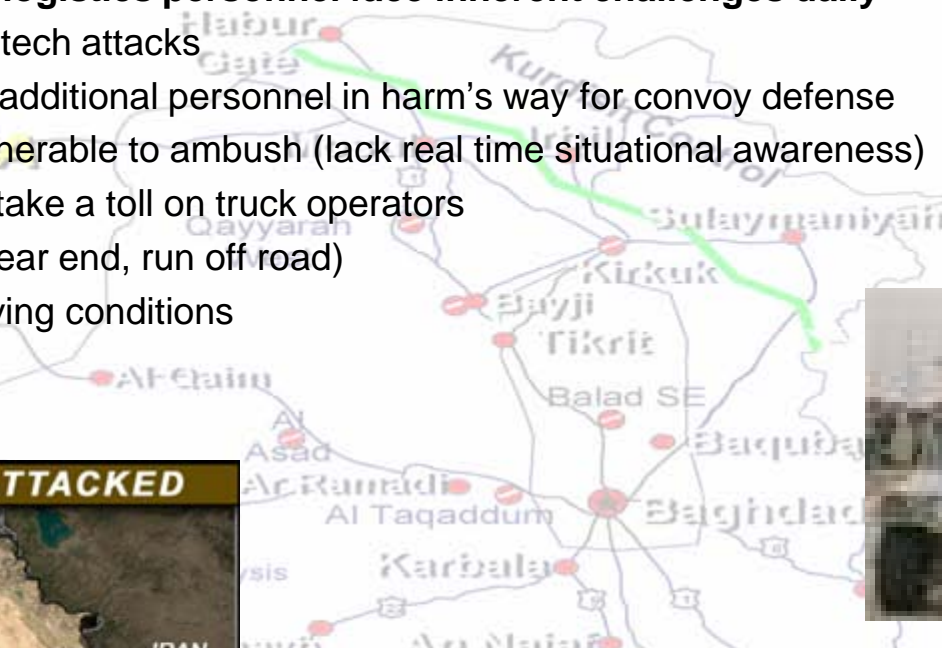
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## DoD transportation/logistics personnel face inherent challenges daily

- IEDs and other low tech attacks
- Threat level places additional personnel in harm's way for convoy defense
- Truck operators vulnerable to ambush (lack real time situational awareness)
- Long 18 hour days take a toll on truck operators
- Driving accidents (rear end, run off road)
- Limited visibility driving conditions



IRAN

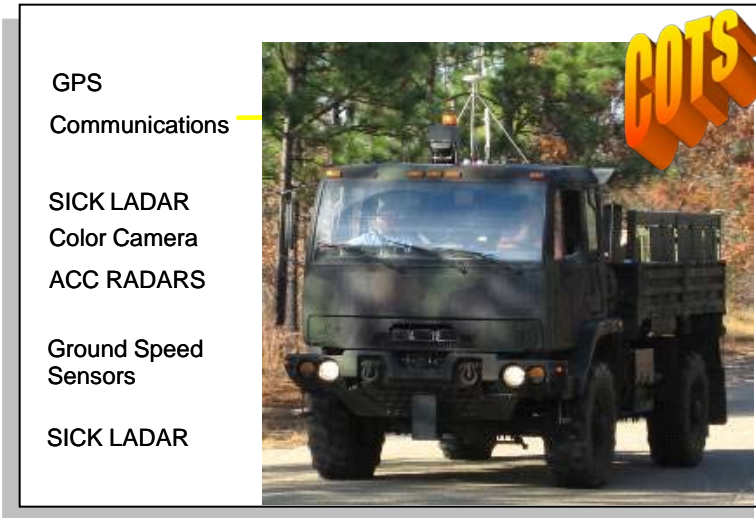
### U.S. TROOPS ATTACKED



## The Challenge:

Effectively utilize existing automation technology to enhance soldier performance/reduce threat exposure while conducting the 3 Ds:

**Dull, Dirty, or Dangerous**



## Turnkey Interface



Provide low cost Robotic Convoy capability for current force Army vehicles

Provide lessons learned on robotic convoy for FCS(BCT)

Leverage Robotic Follower ATO and other FCS Technologies

Provide robotics capability in CS/CSS community in out-years

Generate Warfighter requirement for Robotic Convoy

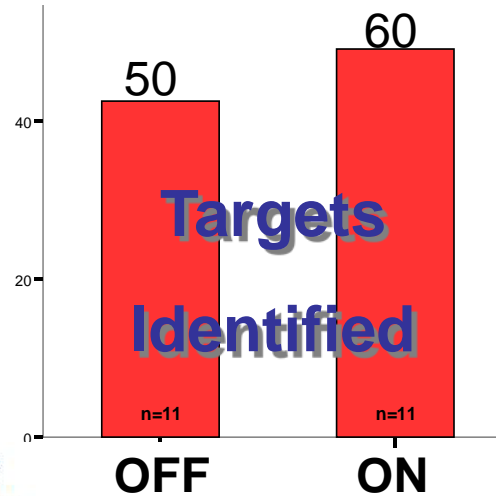
- OSD Joint Ground Robotics Enterprise (JGRE) is covering the cost of the Warfighter Experiments
- JC-UGV is sponsoring the technology development
- Co-sponsored program between the JGRE and the JC-UGV

# Convoy Active Safety Technologies CAST 2007 Summary



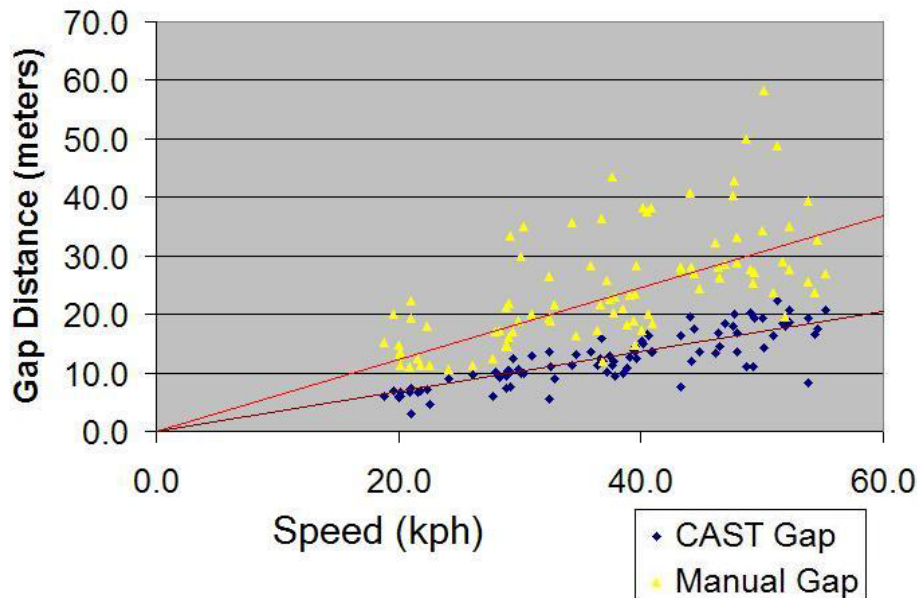
**+ 20%**

- Warfighter Experiments  
In support of draft ICD  
and JCTD foundation
- WE1 tested S.A., fatigue,  
rear-end avoidance,  
cognition and convoy integrity

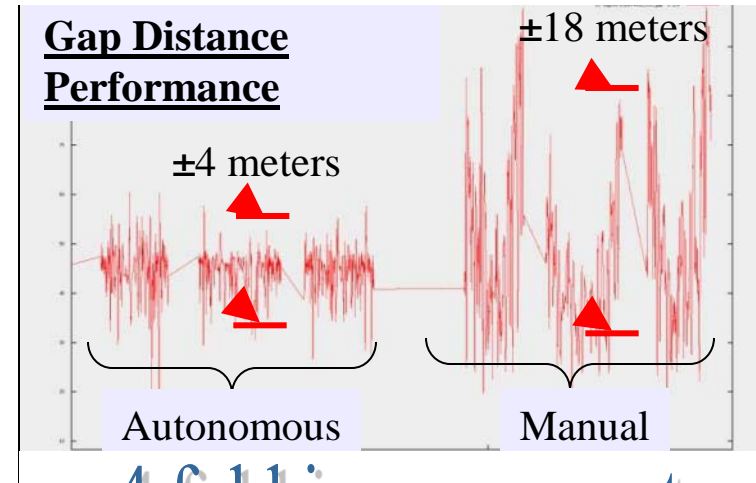


- WE2 to test limited visibility  
environments, line haul  
speeds, multi-vehicle testing  
and obstacle avoidance
- Momentum at user rep.  
level for new requirement

**Change in Gap Distance  
After Emergency Breaking**



**Gap Distance  
Performance**



**4 fold improvement**