2009 MODELING AND SIMULATION (M&S) AWARDS

TARDEC was honored with three M&S Awards

M&S allows systems engineers to see exactly how technologies will fit into a vehicle and determine what issues must be addressed before integrating new technology. This is a key aspect of the work TARDEC associates perform, to ensure technology insertion is validated from all angles. TARDEC associates are experts in this field, as evidenced by the three 2009 M&S Awards they were honored with in FY10.

Lead Integrator for Live/Virtual/Constructive Simulation for Spin Out Enhanced Infantry Brigade Combat Team (IBCT) (Individual):
TARDEC Associate Kevin Hope created an M&S environment to test robotic technologies using a mix of live and simulated assets that enabled brigade-level exercises to be conducted with significantly fewer live assets, resulting in substantial cost savings to the Army.

Mine Blast Effects on Ground Vehicle Structures and Crew Injury (Team):
This award recognized the efforts of an RDECOM-TARDEC team in researching state-of-the-art computational toolkits and developing a sophisticated methodology to evaluate mine 22 blast effects on ground vehicle structures and crew injury risks. The award-winning tool allows models of blast effects to be examined at the systems level. Results then allow researchers to prepare vehicles to respond to the phenomena and better protect Soldiers.

Physiological Basis of Local Area Security and Semi-Autonomous Driving (Team):
An RDECOM-TARDEC team designed and built a human-in-the-loop, motion-based simulation experiment to study the physiological basis of local area security and semiautonomous driving. The results help facilitate real-time understanding of Soldiers' brain functions in operational environments and allow for matching of individual Soldiers' capabilities and advanced vehicle technologies. The approach involved neuroergonomics—the study of brain and behavior at work, which combines neuroscience and human factors. This test volunteer is wearing an ARL Human Research and Engineering Directorate neuroergonomic cap to record brainwaves related to his reactions to the simulated testing in the Ride Motion Simulator.