Wireless Electronic and Mechanical Maintenance Module (WEM3)

The NAC and American Systems Technology, Inc. (ASTI) have successfully developed, installed and tested a Joint Wireless Sensor Electronic Systems Integration (ESI) Hub as part of an on-board diagnostics analysis system. This system will help the NAC research ways in which the ESI Hub can perform on-vehicle advanced diagnostics and power management for tactical wheeled platforms. The NAC also partners with Pilgrim Technology LLC to provide nodal wireless radio frequency capability at the discrete sensor points distributed around Army tactical trucks. This capability allows the ESI Hub to seamlessly communicate with and collect data from devices such as onboard oil analysis systems, the drivetrain electronic control network and electronically instrumented suspension and chassis members on vehicles including the High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) and Family of Medium Tactical Vehicles (FMTV). Another team partner is nCode International. nCode hardware and software is used to acquire instrumentation data including loads and accelerations; assess damage; report on the structural integrity of suspension elements; and other load-bearing components.

NAC Contact:
Deam Ventimeglia, (586) 574-6299

ASTI Contact:
Brian Crankshaw
(248) 362-4100 ext 24

nCode Contact:
Robert Goffee
(248) 945-4351

Pilgrim Technologies Contact:
Dr. Jim Pilgrim, (989) 837-2099