

1) **Mile Marker Inc.**

2) Our company is a supplier for Winches (vehicle recovery) for TACOM and AM General Corporation for the HMMWV, and also are a supplier for Winches (vehicle recovery) to SupaCat for the MOD in the UK. We are interested in any opportunities to participate in providing Winches, Recovery Gear, Brushguards, brackets, Hydraulic Valves and mounts related to the FTTS Program. 0GZB7

3) www.milemarker.com

4) 2121 Blount Road,

5) Pompano Beach, Florida 33069

6) Drew V. Aho, Executive Vice President/Chief Operating Officer 800-886-8647

7) Phone: 954-782-0604,

8) Fax: 954-782-0770

9) Email: dvaho@milemarker.com

1) **AEA Technology**

2) AEA Technology, with annual revenues in excess of \$420M, is one of the world's largest independent science, engineering and consulting companies with operations throughout the world (31 countries in all). AEA Technology employs more than 2800 staff including more than 1500 graduate or technically qualified professionals and has developed a reputation of delivering cost-effective, practical solutions to customers, using technically excellent multidisciplinary teams which demonstrate a large degree of innovation and integrity. In the USA, AEA Technology has been a major contractor to the US Federal Government for more than 10 years. Operating through its engineering subsidiary company (AEA Technology Engineering Services Inc.) AEA Technology offers a number of technologies and systems to the FTTS program including

- Vehicle Prognostic Systems (ie vehicle health and usage monitoring systems

-large Li ion batteries (eg for hybrid electric drive) which give significant weight and space advantages over other energy storage technologies

-Electrocat for after-treatment of diesel engine emissions

3) <http://www.aeat.co.uk> (parent corporation); <http://www.aeatech.com> (US subsidiary);

<http://www.ncode.com> (Prognostics); <http://www.aeabatteries.com> (batteries)

4) 560 Herndon Parkway, Suite 130

5) Herndon VA 20170

6) POC: Dr. Laurie Judd

7) (703) 668 0550

8) (703) 668 0660

9) Email: judd@aeatech.com

1) **Advanced Propulsion Technologies Inc. (APT)**

2) APT's technologies cover a wide range of power applications in the consumer, commercial, military and industrial markets, from small portable generators to truck engines to large stationary power plants. The Opposed Piston Opposed Cylinder (opoc) engine is a significant advancement of the art of combustion engines and is extremely compact, lightweight, efficient and lower in cost when compared to conventional

engines. The opoc engine is at the heart of APT's electric generators called Electric Power Cells (epc), which are extremely compact and efficient systems that can be used as Auxiliary Power Units (APU) for cars, trucks, RVs and aircraft, as well as portable generators and stationary power systems for residential and industrial use. The APU is a special version of the epc that can be integrated into vehicles of all types and provides on-board electrical power that is not possible today in such a small package. The APU leads to increased functionality in terms of vehicle cabin preconditioning (heat/cool) in luxury vehicles, 110V/220V exportable power functionality to run tools or recreational products, power for commercial refrigeration, loading and lighting vehicle applications and elimination of parasitic systems associated with today's engines – all without the main engine running.

3) www.propulsioneotech.com

4) 69 Santa Felicia Drive

5) Goleta, CA 93117

6) Tom Prusinski, Engineering Manager

7) (805) 685-5070

8) (805) 685-5025

9) tprusinski@propulsioneotech.com

1) Alkan Shelter, LLC

2) Originally formed in 1991 as Centec Mobile Systems, Alkan Shelter, LLC, is an Alaska based company headquartered in Fairbanks. For over a decade Alkan Shelter, LLC has been designing, manufacturing and supplying shelters and containers to government, military and commercial customers where they must survive in some of the most challenging environments and rugged locations throughout the world. First requested by the National Science Foundation for use at the South Pole and Antarctica, then modified and tested for years in the rugged and harsh conditions of Alaska, the shelters have been proven to perform. In conjunction with the Los Alamos National Laboratory, Alkan designed a mobile lab shelter fitted to a Mercedes UNIMOG. That Shelter was equipped with a pressurized clean-room controlled environment and high density X-ray equipment. Alkan Shelter, LLC is under contract with TACOM/NAC for the development of an innovative Modular Logistics Transport Technology MLTT for use as a DOD intermodal container system for, or in conjunction with, military ground vehicles. ALKAN's shelters have been developed using advanced composite hybrid carbon fiber technology. Finite element analysis is performed to optimize material, critical load paths, stresses, structural integrity, and extend product life.

3) www.alkanshelter.com

4) 1701 South Cushman Street

5) Fairbanks, AK 99701

6) Gerald D. Myers, CEO

7) Phone: 907.458.0800

8) FAX: 907.458.0806

9) Email: gmyers@alkanshelter.com

1) **Peck & Hale LLC**

2) Cargo Tie Down Systems i.a.w Mil-Std-209 requirements

3) www.PeckHale.com

4) West Sayville NY 11796

5) Wilson Freire ext 209, Randy Soper ext 239

6) 631-589-2510

7) 631-589-2925

8) wfreire@peckhale.com

1) **Noregon Systems, Inc.**

2) Software development company specializing in the transportation area. Small business providing full life cycle software development. SEI - CMM level 3. Industry experts - vehicle databus (CAN, J1939, J1708, J1850, RP1210A), on board/off board data communication, on board integration, telematics, web services, portals, remote diagnostics, prognostics, CBR and event driven predictive diagnostics. Over 50 diagnostic fielded applications (PC/PDA/Web) in the commercial and military industry. Customers include General Motors, Caterpillar, Detroit Diesel, Cummins, Mack, Freightliner, International, Kenworth, Stewart&Stevenson, Allison, Meritor Wabco, Yale, Hyster and Ricardo. COTS products available include: vehicle/driver health and performance, graphics monitoring tool, flight recorder, PC and PDA diagnostic framework, J1587 and J1939 Protocol stacks and RP1210 A drivers

3) www.noregon.com

4) 500 Shepherd Street

5) Winston-Salem, NC 27103

6) Bill Van Horn

7) Phone: 336-768-4337

8) Fax: 336-760-2540

9) Email: bvanhorn@noregon.com

1) **International Star Corporation**

2) International Star Corporation has been a leader in the gasket, water deflector, die cutting, foam in place, thermoforming industry for the past 79 years. We are a small business concern, CCR registered and QS9000 certified. We have an experienced engineering team and we are capable of producing parts from design to large production runs. We have experience in automotive field as well as military products. Our ABVS rating is 100%.

3) www.instarcorp.com

4) 30845 23 Mile Road

5) New Baltimore, MI 48087

6) Ronald S. Rummell – Government Contract Liaison

7) Phone: 586-949-2200 ext. 235

8) Fax: 586-949-5552

9) Email: RRummell@Instarcorp.com

1) **Great Lakes Railcar**

2) CCR & ProNet registered WOSB providing APU's, cranes & material handling equipment, heavy duty trailers, non-slip surfacing, hydro-pneumatic suspension, diesel-electric power packs, active & passive fire suppression, centrifugal separators for fluid recycling, specialty casting and machining, propulsion system engineering, rail equipment & special moves.

3) www.greatlakesrailcar.com

4) 3758 Hatfield

5) Waterford, MI 48329-1733

6) Pamela S. Monaghan, President/Owner

7) Phone: 248.673.9177

8) Fax: 248.673.7183

9) Email: qlr@greatlakesrailcar.com

1) **Electro Standards Laboratories**

2) Electro Standards Laboratories provides a team of expert and experienced engineering staff to support each client's research, development, and delivery needs. Expertise includes digital signal processor based electronics, mechanics, software programming, electric motor systems, power electronics, communications, Web-enabled systems, and graphical user interface programming. Research projects include starter/generators, active suspension, electric propulsion, HEV Traction Drives, SRM Power Steering and Electric Pumps, Intelligent Battery Charging and Fault Resilient Control.

3) www.ElectroStandards.com

4) 36 Western Industrial Drive

5) Cranston, RI 02921

6) Dr. Ray Sepe, Jr., VP of R&D

7) Phone: 401-943-1164

8) Fax: 401-946-5790

9) Email: rsepe@ElectroStandards.com

1) **Foster-Miller, Inc.**

2) Foster-Miller, Inc has demonstrated the ability to develop innovative advanced materials and processes for challenging real-world problems and the capability to bring these solutions to market in real time. Our materials technology group is the lead for several current cutting-edge TACOM development programs including the Smart Exhaust System (to reduce diesel exhaust noise while increasing fuel efficiency), weight reduction technology that enables the substitution of steel and cast iron components with aluminum and magnesium alloys, and the design and fabrication of blast resistant structures and components for combat vehicles.. Other relevant capabilities include the design and manufacture of large, out-of-autoclave cured composite parts using our patented UTLTM debulking process; a technology directly applicable to many of the composite chassis designs envisioned for the Future Combat System family of vehicles. Multi-functional and "smart" structures, in which structural health monitoring, ballistic

protection and antennas/electronics are integrated into the structure, is another emerging area at Foster-Miller. Our capabilities are in no way limited to long-range development efforts. As an example of our mass production and delivery capabilities, we have designed and are presently supplying appliqué door armor for USMC HMMWVs, effectively protecting our Marines in Iraq today.

3) www.foster-miller.com

4) 303 Bear Hill Road

5) Waltham, MA 02451

6) Dr. Jonathan Arata, Senior Engineer, Materials Technology/Composites

7) 781-622-5505

8) 781-890-0488

9) jarata@foster-miller.com

1) **Engineous Software, Inc.**-Small business (SBA# 541511 Custom Computer Programming Services) Product name: FIPER(r)

2) Area of expertise- Specializes in COTS analysis integration frameworks. The solution allows the rapid integration of models and simulations (M&S) for multi-domain analysis. M&S domains supported i.e. Battlefield, Cost (PRICE, SEER) Effectiveness, Design (CAD, CAE), Logistics, Supportability, Risk, and Performance etc. The FIPER(r) framework supports robust analysis methodologies such as Analysis of Alternatives (AoA), Cost as an independent Variable (CAIV), Total Cost of Ownership (TOC), Risk Management Analysis (RMA), Multi-Disciplinary Design Optimization (MDO), and a range of Design of Experiment (DOE) and Probabilistic analysis techniques. The solution enables the building of reusable analysis components and workflows for near real time design and cost trade-offs early in the life cycle of a system and optimizing performance for a given target. Relevant application experience: World leader in the Automotive, Aerospace, Electronics and Industrial markets. The FIPER(r) Integration framework is being utilized in the US Army's Integrated Performance Cost Model program (IPCM) sponsored by the Office of the Deputy Assistant of the Army for Cost and Economics (ODASA-CE). The solution is provided as a desktop, workgroup or enterprise application.

3) www.engineous.com

4) 2000 CentreGreen Way

5) Cary, North, Carolina 27513

6) Glenn Reis- Vice President Business Development

7) Phone: 919-677-6708

8) Fax: 919-677-8911

9) Email: reis@engineous.com

1) **Suntron Corporation**

2) Area of expertise: Suntron Corporation (www.suntroncorp.com)

<http://www.suntroncorp.com>) is a leading provider of electronics manufacturing and engineering services for government agencies, the Department of Defense, the avionics and aerospace community and defense prime contractors. As a strategic partner for

highly complex electronics manufacturing, we specialize in high-mix, low- to medium-volume programs. We offer a full range of customized design, manufacturing and testing services that address the demanding requirements of modern electronics systems, subsystems and complex circuit card assemblies. We are equipped with advanced manufacturing production lines designed for both high and low volume production, as well as a dedicated New Product Introduction "factory within a factory."

Our Mexico site offers a reduced cost solution without sacrificing quality

As an ISO 9001 certified operation, Suntron has also implemented a variety of Total Quality Management principles throughout the company, including Lean Manufacturing and a dedicated Six Sigma organization. These principals form the centerpiece of our operating culture and enable us to offer our customers added value, more streamlined processes and improved quality.

Capabilities include:

- * Complex cables and airframe harnesses
- * Complex printed circuit boards (both PTH & SMT)
- * Plastic injection molding
- * Sheet metal fabrication
- * Powder Paint
- * Revision/Rework/Repair Services
- * Final Integration
- * Engineering Design Services
- * Rapid Prototyping
- * Electro-mechanical devices and finished products built in a flexible

manufacturing environment

- * Complete box-build

3) www.suntroncorp.com

4) 2501 W. Grandview Road

5) Phoenix, AZ

6) Dan Byrne

7) Phone: 269-353-2853

8) Fax: 269-353-3648

9) Email: dan.byrne@suntroncorp.com

1) **EEC Inc.**

2) We are a sharply focused electromechanical design engineering and product development firm, currently serving the electronics, medical, pharmaceutical, industrial, government, and consumer product markets. Our comprehensive service offering runs the gamut of engineering disciplines and includes industrial design and concept development/modeling, embedded hardware/software development and printed circuit board design/development, electromechanical design of discrete parts, mechanisms, subassemblies, and system level enclosures, as well as thermal (Flowtherm) and structural (FEA) analyses. We are skilled in the engineering and design of parts to be fabricated from plastic injection molding, formed sheet metal, machining, casting, and extrusion. These offerings are complimented by product development services such as

rapid prototyping in plastic and metal, and all levels of production procurement, assembly, and testing.

3) www.eec-inc.com

4) 6 Wilkins Dr., Suite 105

5) Plainville, MA 02762

6) POC: Chris McEvoy, Project Manager

7) 508-699-3309 ext. 3#

8) 508-699-2856

9) cmcevoy@eec-inc.com

1) **ROTZLER GMBH & CO**

2) Designer, Developer & Manufacturer of Self-recovery / Recovery Equipment / Systems and Module Recovery Systems to support Military Tactical Vehicles i.e. Tire / Track.

3) www.rotzler.com

4) 12443 Lutz

5) Warren, MI 48093

6) POC: Chris Heinzelman - North American Military Rep.

7) Tel: (586) 939-4578

8) Fax: 939-6948

9) Email: cphmhwm@msn.com

1) **MSC Software**

2) Having evolved out of a joint development alliance with NASA in 1963, MSC Software Corporation (NYSE: MNS) has just celebrated 40 years' of production-proven experience as the leading global provider of virtual product development tools, including (M&S) modeling & simulation software and professional services, which helps commercial, defense, space program, and government organizations make money, save time, and reduce costs associated with designing and testing manufactured products. MSC Software works with thousands of companies worldwide, in hundreds of industries to innovate and develop better products faster by utilizing information technology, software, services and systems to enhance and automate the product design and manufacturing process. Our mission is to provide customers with value-added products including Software and Engineering Services, to predict product performance and validate performance specifications in a virtual, scientific world, before incurring the high costs of physically building and testing. Simulating your product performance reduces development costs, time to market, and improves quality and reliability to minimize liabilities and warranty costs. We are focused on satisfying the Virtual Product Development requirements of global manufacturers, technology companies, research institutions and universities around the world. MSC services a broad spectrum of manufacturers and research facilities in the defense, aerospace, automotive, general machinery, medical/biomechanics, rail/transportation, consumer products, and electromechanical industries, among others. Major customers include

Boeing, Lockheed, NASA, U.S. Army-TACOM, GM, Ford and Daimler Chrysler.
MSC.Software employs more than 1500 people in 23 countries.

3) For additional information about MSC.Software, our technology, services, and initiatives, please visit our website @ <http://www.mscsoftware.com>. and feel free to send an email to www@mscsoftware.com or don.bieniek@mscsoftware.com with any questions or needs.

4) 2300 Traverwood

MSC Software Corporation-Regional Headquarters

5) Ann Arbor, MI 48105

6) Don Bieniek-MSC Account Executive

MSC Software Corporation

"Simulating Reality with Production-Proven

CAD/CAM/CAE/PDM Software & Service Solutions"

2300 Traverwood Drive

Ann Arbor, MI 48105-2195

7) Office Phone: (734) 734-887-2603

Fax: 1-866-227-8954

Cell: 248-470-5602

1) **Grove US L.L.C.**

2) Grove is a manufacturer of mobile hydraulic All Terrain, Rough Terrain, Truck Mounted, Industrial, Lattice Boom Crawler and Tower Cranes. Military products include the HEMTT M977, M984, M985, FMTV Cargo, FMTV Wrecker, PLS, LVS Truck Mounted Cranes as well as the FRS flat rack mounted crane.

3) www.grovetworldwide.com

4) 1565 Buchanan Trail East

Shady Grove, PA 17256-0021

5) Jim McDowell, Director Government Marketing

6) Phone: 717-593-5115

7) Fax: 717-593-5104

8) Email: jmcdowel@grovetworldwide.com

1) **Sail D. White Enterprises, Inc.**

2) Areas of interest and expertise: Sail DWE is a Veteran Owned Small, Sub-Chapter S Corporation that specializes in Articulated Mechanical devices for modular suspension systems that has 4 patents and one applied for on an electro-mechanical energy storage and transfer device, titled: "Extended Range Electric Vehicle" uses principles applicable to this effort. The owner has over 32 years with one company in the electrical industry, with the last 13 years in Nuclear Power Generation, and is NANT Certified. The owner would like to collaborate on the overall FTTS Concept and be involved in the development and supply of the modular cube component for the steering, power transfer and

height/width adjustment to allow maximum useable space while maintaining air transportability.

3) 1212 South Muskogee Avenue

4) Russellville, AR 72801

5) Donald J. White, President/Innovator

6) Phone: 479-967-5277

7) Fax: 479-967-4886

8) Email: saildwe@cei.net

1) **Page Aerospace Incorporated**

2) Products and Capability: Page Aerospace Incorporated is a wholly owned subsidiary of Page Aerospace Limited. Page Aerospace Limited, founded in 1942, is an accredited supplier (ISO 9001 / SAE AS9100 and MoD Def Stan 05-123) to many of the worlds Aerospace and Defence Manufacturers and has designed, developed and manufactured a range of products which fall into the following categories:

a. Lighting and Lighting Control: Rugged, High Reliability Light Emitting Diode (LED) based Lighting Solutions, Incandescent and Fluorescent Lighting fixtures and fittings together with Single and Multi-Channel Lighting Controllers for Air and Ground Vehicle Applications.

b. Power Conversion and Management Systems: Custom Power Conversion solutions for a range of applications including AC to DC, DC to DC conversion to 1KW, Communications Battery Charging and Management Systems for Ground and Air Vehicles.

c. Caution and Warning Systems: Caution and Warning Systems that utilize Sun Light Readable (SLR), Night Vision Goggle (NVG) or Night Vision Systems (NVIS) compatible which can also include digitized synthesized voice and multi-function display capability with prioritized and discrete inputs for Air and Ground Vehicle applications.

d. Electro-Mechanical Man/Machine Interface Systems: High Integrity Application Specific Electro-Mechanical products which range from Flight Critical Fly-By-Wire Inceptors to Safety Critical Fire Switches, Safe Arming Switches and Landing Gear Selectors.

Page has a rapidly increasing number of LED based lighting products which have been selected by UK and European ground vehicle manufacturers for either new build or retrofit programmes as innovative solutions to well known lighting problems. The key to these solutions is the careful attention to the design and manufacturing detail which enhances the performance of the unit and prolongs the effective life of the LED.

To mitigate problems associated with the transmission of protected and sensitive data from the US to the UK Page has worked closely with the DoD and State Department and has been able to put in place a Technical Assistance Agreement between our office in Seattle, Washington and the European facilities in the UK and Germany. This means that data, materials, RFI's or RFP's may be routed to the UK or German offices by the Seattle based Page Aerospace Inc. and

proposals, responses and samples may be routed in the reverse direction by either the German or UK offices. This retains the integrity of the TAA which subsequently may be extended into an export license should a US based company wish to place a contract with us.

3) www.pageaerospace.com

4) 22121 - 17th Avenue SE

5) Bothell State: Washington Zip Code: 98021-4417

6) Gabriella Betts-Malcolm General Manager

Paul Knight - Business Development Manager

7) Phone: (425) 489-2000

8) Fax: (425) 489-2099

9) Email: gmalcolm@pageaerospace.com

pknight@pageaerospace.co.uk

1) The Applied Research Laboratory at Penn State University

2) The Applied Research Laboratory is a University-Affiliated Research Center (UARC) that has advanced expertise in the areas of materials, manufacturing, information science & technology and systems operations & automation for military assets. Our specific area of interest and expertise for this program is in the design and development of automated/embedded advanced diagnostics and prognostics for complex mechanical and electrical systems. We have extensive experience in the design and implementation of Prognostics and Health Monitoring systems for various platform types including: ships, helicopters and ground vehicles. Our function for this program would be to use proven systematic methodologies to design a vehicle health monitoring (VHM) system for integration into the Future Tactical Truck System - Advanced Concept Technology Demonstration. We also have expertise in the development of business case models for the justification of health monitoring technology and the organization of user juries to help define the types of information that is important to various information customers (i.e. operators, maintainers, logisticians, etc.). The VHM system will provide health information to enable two-tier maintenance and autonomous logistics, which will contribute to increased operational availability and reduced total ownership costs.

3) <http://www.arl.psu.edu/>

4) P.O. Box 30, North Atherton Street

5) State College, PA 16804-0030

6) Jeffrey C. Banks, Research Engineer

7) (814) 863-3859

8) (814) 863-0673

9) Email: jcb242@psu.edu

1) UQM Technologies, Inc.

2) UQM specializes in the development, integration, and production of high performance, high efficiency, and light weight brushless permanent magnet

motors and controls. UQM's extensive experience includes supplying motors, generators, and power electronics for applications such as hybrid electric HMMWVs, buses, tractors, cars, trucks, and the Unmanned Ground Combat Vehicle. UQM supplies equipment for use as wheel drives, axle drives, auxiliary equipment such as fans and compressors, and engine mounted generators. UQM also has the capability and experience to perform integration of subsystems or entire vehicle propulsion systems. UQM products range from 500 W to over 100 kW, 12 V to 800 V, and 30 rpm to 120,000 rpm. UQM's ISO 9001:2000 certified facility offers high quality production of motors and generators at competitive pricing.

3) <http://www.uqm.com>

4) 7501 Miller Drive, PO Box 439

5) Frederick, CO 80530

6) Seth McCause, Sales Engineer

7) 303-278-2002

8) 303-278-7007

9) Email: sales@uqm.com

1) **Timoney Technology**

2) Timoney provides leading edge mobility systems globally, tailored to the specific needs of our clients. Constant innovation, consistent quality, expert engineering and creative solutions to the challenges our clients pose - these are our hallmarks. Timoney has provided land mobility system solutions for over 30 years. Innovative military projects currently in hardware include an invertible hydrogas suspension and planetary hub for the "Spinner" UGCV vehicle (funded by DARPA) and a trailing-arm suspension for the "Gladiator" TUGV vehicle (funded by ONR). Recent military projects include the independent suspension and driveline for the UDLP FCS(W) "Pegasus" electric drive vehicle, independent suspension for the Textron ASV and the AM General MTRV competition vehicle and the design and development of an 8*8 High Mobility Truck (HMT) for Volvo. Timoney designs and develops its own suspension systems, struts, dropboxes and planetary gearboxes in-house using ANSYS FEA, DADS dynamic modeling and the NATO reference mobility model.

3) www.timoney-technology.com

4) 2400 Brasher Lane

5) Bedford, TX 76021

6) Mark Doody, Sales and Marketing Manager, North America

7) Phone: 469-235-5232

8) Fax: 817-283-6402

9) Email: mduody@timoneygroup.com

1) **New Generation Motors Corporation (NGM)**

2) Brief description of the areas of interest and expertise:

NGM designs, manufactures, and markets electric motors and controllers. NGM offers compact, high efficiency & torque density permanent magnet axial-flux

brushless motors with proprietary variable gap technology; concomitant state-of-the-art controllers; vehicle control and interface modules (including energy storage, management, and monitoring systems); and related software that have applications in markets ranging from electric/hybrid electric vehicles to materials handling equipment, distributive power, ground support equipment, motion control, and military applications. NGM has full in-house research, design, and prototyping capabilities to develop new products for specific applications and has recently established mass production capabilities to handle large-scale production of its advanced technology. NGM is the dominant player in the specialized ultra-high efficiency solar car drive system market with over 90% market share.

3) www.ngmcorp.com

4) 44645 Guilford Drive, Suite 201

5) Ashburn, VA 20147

6) Anubhav Sethi, International Operations & Sales Manager

7) Phone: 703-858-0036 x218

8) Fax: 703-858-0699

9) Email: asethi@ngmcorp.com

1) **Kollmorgen, Inland Motor**

2) Capabilities Description: Kollmorgen - Inland Motor has provided 56 years of continuous excellence in custom motors and motion control solutions for aerospace & defense applications. For example, Inland Motor has delivered over 30,000 motors and 18,000 vehicle sights for the M1 Abrams tank. For the FTTS Program, Kollmorgen would be interested in supplying in-hub motors, actuators and other custom motion control assemblies. Inland Motor leads the industry with engineering expertise to provide leading edge technology, unique products and production capability for our customers. Now part of the \$5 billion Danaher Corporation, Kollmorgen, Micron, Deltran, Harowe and Thomson can combine to provide a complete motion package with gearbox, brake, resolver or ball screw.

3) www.danaherdefense.com

4) 501 West Main Street

5) Radford, VA 24141

6) Rich Rio, Director of Aerospace & Defense Sales

7) Phone: 540-633-5584

8) Fax: 540-731-5679

9) Email: rich.rio@danahermotion.com

1) **Lambda Corporation**

2) Areas of expertise: Lambda Corporation is a small business, founded in 1989, specializing in reliability and maintainability (R&M), life cycle cost (LCC) and project risk management. Our R&M and LCC management strategies have consistently set the standard by which our client's competitors are judged. Our newly developed project risk management approach has been successfully employed on several US Army projects, and is gaining acceptance as a practical,

common sense approach to project risk management. We have worked on many US Army tracked and wheeled vehicle programs, including the FMTV, the HMMWV, and the US Marine Corp Hybrid-Electric RSTV. In fact, our founder conceived and directed the R&M and LCC programs for the competitive HMMWV procurement, and the resulting product far outshined all competitive offers in reliability, maintainability and Life Cycle Cost. This fact resulted in a multi-billion \$ production contract, even though the offeror was not low bidder. Our reputation is well established in the Tank-Automotive community, and our satisfied clients include large prime contractors, suppliers and the US Army. We have also worked on dozens of US Army proposals in the areas of reliability, maintainability, testing/development, logistics, life cycle cost and project risk management. In addition to our extensive military expertise, we also support the commercial heavy truck and automotive markets in attaining world class reliability, maintainability and life cycle cost through the skilled management and application of the many tools of R&M engineering.

3) www.lambdacorp.com

4) 1257 Lake Shore Blvd.

5) Lake Orion, MI 48362

6) Brian Kraniak, President

7) Phone: 248-814-9201

8) Fax: 248-814-9202

9) Email: bkraniak@lambdacorp.com

1) **Robotics Research Corporation**

2) RRC designs and manufactures dexterous manipulator systems and advanced control systems for the industrial, aerospace, research and defense sectors. Under contracts with the US Army ARDEC, RRC has implemented the company's R2 control technology for automating munitions material handling equipment and processes in unstructured environments. The architecture and control methods are designed to control any manipulator on any mobile platform, independent of their individual capabilities.

The R2 Control has been integrated into GFE referred to as the Smart Crane Ammunition Transfer System (Smart Crane) — an existing hydraulic crane mounted on a HEMTT — for application development and demonstration. The system uses sensory feedback, force control, redundancy control, and an advanced shared control operator interface to perform highly autonomous, munitions handling operations. The generic, open-architecture, component based control system can be readily adapted to a broad range of military and commercial applications including material handling and assembly, missile loading, rearming tanks, construction, vehicle refueling, explosive ordnance disposal/mine clearing, cleaning, sand/bead/water blasting and painting/coating. The company's redundant kinematics algorithms and trajectory planning methods, together, represent the most powerful approach yet demonstrated for controlling redundant linkages — providing reliable, efficient coordinated control of robot systems with any number of joints and arms operating in an 'intelligent'

(i.e., reflexive), sensor-driven mode. RRC's staff possesses world-class expertise in each key facet of robotics technology — control mathematics, software development, digital and analog electronics engineering, and mechanical design and analysis.

- 3) www.robotics-research.com
- 4) 101 Landy Lane
- 5) Cincinnati, OH 45215
- 6) Keith A. Kowalski, President
- 7) 513-733-5500 x299
- 8) 586-816-0841
- 9) kakowalski@aol.com

1) O'Neil & Associates, Inc.

2) Brief Description: We create product support solutions that increase readiness and provide for life-cycle support of the vehicle. We are a Small Business that specializes in IETMs and, with regard to this program, EMS (Electronic Maintenance System). Our services span the spectrum from LSA, provisioning, and TMs to intrusive diagnostics, predictive maintenance, platform maintenance aids, and embedded training. In one way or another, we have supported nearly every tactical wheeled vehicle in production.

- 3) www.oneil.com
- 4) 495 Byers Road
- 5) Miamisburg, OH 45342-3662
- 6) Thomas R. Hawley, Manager DoD Business
- 7) Phone: (937) 865-0846 x-3029
- 8) Fax: (937) 865-5858
- 9) Email: thawley@oneil.com

1) Dayton T. Brown, Inc., Technical Communications Division

2) DTB is interested in the documentation and training requirements for FTTS. We are a veteran owned small business incorporated in 1950 and have been providing technical writing and associated services for over 35 years. Since 1966 Dayton T. Brown, Inc. has provided comprehensive Integrated Logistics Support Services to the Military, government prime contractors and commercial industries. Our information specialists create a broad range of interactive electronic technical manuals (IETM). The formats used include element linking of traditionally prepared technical manuals in a page-oriented environment, linear based displays of text and supporting graphics with interactive links, highly customized (hierarchy based) interrelated text and graphics authored directly into an IETM database using XML and SGML. This use of XML/SGML tagging provides diagnostic IETM that interact directly with onboard systems and computers. These electronic presentations are developed using commercial off-the-shelf (COTS) and Government specific software. IETM can be hosted and delivered locally on the user's computer or on a server and host prime equipment, or in an Intranet/Internet environment. DTB's training and instructional design specialists are

also experts in the design and delivery of training development products across the instructional spectrum. Advanced interactive computer based training (CBT) and web-based training programs are developed using criterion-referenced tests and self paced instructional modules. Features of CBT and web-based programs also include: remedial exercises, self-grading and student record keeping. Traditional course materials are readily adapted to interactive CBT and web-based formats. DTB also has three other Divisions: a Precision Manufacturing Division (Precision Sheet Metal), Test Systems & Contract Manufacturing Division (ATE), Engineering & Test Division (EMI/EMC, environmental, dynamic nondestructive, dimensional testing, as well as shock and vibration testing).

3) 1175 Church Street

4) Bohemia, NY 11716

5) Harry Porthouse, Director of New Business Development

6) Phone: (631) 244-6354

7) Fax: (631) 567-8540

8) hporthouse@dtb.com

1) Multidrive Ltd

2) Designers and manufacturers of specialist vehicles and systems. Adaptable powered trailer concepts and concept design are specific areas of interest.

3) www.multidrive.co.uk

4) Thirsk Industrial Park

5) Thirsk, North Yorkshire YO7 3BX, United Kingdom

6) C J Chambers, Managing Director (Sales & Product Sp)

7) +44 1845 521500

8) +44 1845 521505

9) Email: chris.chambers@multidrive.co.uk

1) General Kinetics Engineering Corporation

2) Area of interest and expertise: We do vehicle suspension design and manufacturing, either at the component or the system level. We are a military-only contractor with extensive engineering capabilities and a 20 plus year history of supplying engineered suspension components and systems to TACOM as well as to vehicle OEMs. We are currently involved in electronically controlled shock absorbers and suspension struts using various technologies in separate projects, knowing roughly what the FTTS requirements will demand in a suspension. We are registered under ISO 9001:2000 and the CGRP, DD-1234 is current.

3) www.kinetics.ca

4) 110 East Drive

5) Brampton, Ontario, Canada L6T 1C1

6) Mike Ward, P.Eng., Advanced Engineering Manager or Melissa Morris, Customer Service Manager

7) Phone: 905-458-0888

8) Fax: 905-458-7566

9) Email: mike@kinetics.ca, melissa@kinetics.ca

1) **DRS Electric Power Technologies, Inc.**

2) Areas of relevant competence and interest: hybrid electric propulsion systems, electric traction motors(chassis mounted, wheel mounted and in-hub mounted), engine power generators

3) www.DRS.com

4) 2 Fox Road

5) Hudson, MA 01749

6) Harry E. Lewis; Director, Army Programs

7) Phone (direct): 941-497-0320

Phone (in plant): 978-562-2933

8) Fax (direct): 941-497-0320

Fax (in-plant): 978-562-6830

9) Email: hlewis@drs-ept.com

1) **Mechanical Equipment Company Inc. (MECO)**

2) Area of Interest: Water Treatment; Water from Exhaust; NBC Water Filtration; Forward Support - Water; Forward Support - Fuel; Fuel Pumps, Fuel Handling; Fuel Pumping Station; Water Generation; Water Chilling; Water Heating. MECO is a small business with over 60 years experience in providing solutions for water and fuel handling. We are presently designing, and manufacturing the next generation water purification unit for the US Army - the LWP (Lightweight Water Purifier) under contract to TACOM.

3) www.meco.com

4) 1615 Poydras St. - 1400

5) New Orleans, LA 70112

6) John H. Klie, Government Business Development Manager

7) Phone: 504 499 4151

8) Fax: 504 499 4100

9) Email: jklic@meco.com

1) **Domnick Hunter, Inc.**

2) Dominick Hunter (DH), a British company, is an international company with headquarters and manufacturing facilities in Northeast of England, subsidiary companies in Brazil, Canada, Denmark, Japan, Malaysia, Singapore, Spain and USA (Charlotte, NC). With 25 years of unrivaled experience, DH is a world leader in highly efficient purification of compressed air, gases, and liquids and industrial dryers. dh's advanced research and development laboratories are specialists in all aspects of filtration, drying and related purification systems. Dominick Hunter manufactures a Regenerative NBC Filtration system that can be designed for, and integrated with applicable systems. After Desert Shield and Desert Storm, the United Kingdom's Ministry of Defense (MoD), established and disseminated a Research and Development

initiative requiring a need for a regenerative chemical filtration system. In 1998, DH developed and delivered a fully functioning and independently validated self-regenerative NBC purification system for collective protection initiative. The technology is called Pressure Temperature Swing Adsorption (PTSA). The system was developed in close cooperation with the UK's MoD Chemical and Biological Establishment at Porton Down, England and under the auspices of a European Collaboration for the Long-term in Defense (EUCLID) project led by DH with French (SP Defense) and Italian (Irvin Aerospace) partners. A detailed test report from the collaboration is available for immediate review. DH developed the purification system and owns all patent rights to the technology. The DH fully regenerative air filtration is capable of providing breathing quality air and is 99.997% effective against nerve agents, viruses, bacteria and even nuclear particles of 0.01u and above. The system gives full protection against all known chemical agents to include blister, blood, and nerve agents and more recently developed perfluoro compounds or so called "carbon busters" against which single pass activated charcoal filters have no defense. The DH regenerative air filtration system far exceeds the minimum CB protection factors outlined in NATO Tryptch AC/225 (panel VII)/251. A Proof of Principle test was performed at Edgewood Chemical and Biological Center, Soldier Biological and Chemical Command, Edgewood Area-Aberdeen Proving Grounds, MD, the test results are attached. ECBC verified, validated and documented the DH Pressure Temperature Swing Adsorption (hereinafter referred to as "PTSA") technology. Summary of the test is the PTSA completely cleans itself and protects against all chemical agents-simulant equivalent.

3) <http://www.domnickh.co.uk>

4) DH Inc, 5900-B Northwoods Parkway, Charlotte, NC 28269

5) Micheal E. P. Davis, VP protective Systems

6) Phone: 703-250-4600

7) Fax: 703-250-4044

8) Email: michealep@cs.com

1) Quanterion Solutions Incorporated

2) Small business specializing in reliability and maintainability engineering services. Provide expertise in formulating program approaches and it performing analyses such as predictions, failure modes and effects analyses, fault tree analyses, etc. as well as setting up reliability and maintainability test programs.

3) quanterion.com

4) 811 Court St.

5) Utica, NY 13502-4096

6) Preston MacDiarmid, President

7) Phone: 315-732-0097

8) Fax: 315-732-3261

9) Email: pmacdiarmid@quanterion.com

1) **Keweenaw Research Center at Michigan Technological University**

2) KRC has over 20 years experience in military and commercial vehicle design, analysis, engineering and testing. We have extensive design and analysis experience with both linear and non-linear materials. In the past, KRC has used this expertise in the design of new military track system and wheeled vehicle components. We have both ADAMS and DADS dynamic modeling experience with both tracked and wheeled vehicles. KRC has noise and vibration research, development and testing experience both at KRC and at Army proving grounds. Past customers in this are include TACOM, GDLS, John Deere and GE. KRC's 500 acre 4 seasons proving ground provides an excellent screening tool prior to first article testing. We have gravel and cross-country courses along with ride quality and slope/ditch facilities. We have a long history with experienced personnel for instrumentation and testing including using all types of sensors, extensive strain gaging experience, a variety of data acquisition systems and state of the art data analysis capability. KRC has a broad reputation for vehicle dynamics and mobility testing and analysis and has been one of the few non-biased facilities available for running the NATO Reference Mobility Model.

3) <http://www.mtukrc.org>

4) Keweenaw Research Center
Michigan Technological University
1400 Townsend Drive

5) Houghton, MI 49931

6) Jay Meldrum, Director

Mark Osborne, Program Manager

Scott Bradley, Program Manager

7) Phone: (906) 487-2750

8) Fax: (906) 487-2202

9) Email: jmeldrum@mtu.edu, sabradle@mtu.edu, or mosborne@mtu.edu

1) **Armor Holdings, Inc.**

2) We are interested in survivability for the FTTS. Armor Holdings, included in FORBES magazine's list of "200 Best Small Companies" in 2003, and a member of the S&P Smallcap 600 Index, is a leading manufacturer of security products for law enforcement personnel around the world through its Armor Holdings Products division and is one of the world's largest and most experienced vehicle armoring companies through its Mobile Security division. Armor Holdings Products manufactures and sells a broad range of high quality branded law enforcement equipment. Such products include ballistic resistant vests and tactical armor, less-lethal munitions, safety holsters, batons, anti-riot products and a variety of crime scene related equipment, including narcotic identification kits. Armor Holdings Mobile Security, through its Military Products division, is the prime contractor to the U.S. Military for the supply of armoring and blast protection for High Mobility Multi-purpose Wheeled Vehicles, (HMMWVs). MSD also provides armor protection and NBC protection for the HIMARS cab. Through its Commercial Products division, the Company armors a variety of vehicles, including limousines, sedans, sport utility vehicles, and money transport vehicles, to protect against varying degrees of ballistic and blast threats.

- 3) www.armorholdings.com
- 4) 9113 LeSaint Drive
- 5) Fairfield, Ohio 45014
- 6) John H. Mayles, Vice President, Military Programs
- 7) Phone: 513-881-9899
- 8) Fax: 513-874-2558
- 9) Email: jmayles@ogara-hess.com

1) **Rotec Design Ltd**

2) Field demonstration of low cost mechanical system for power increases (torque) and emission reductions for use on current in-service diesel engines in both mobile and / or stationary applications. Independently audited prototype test results confirm that Rotec's patented FreedomAir™ system with Pulse™ technology can provide Torque output increases of up to 85% -- or -- the simultaneous "At Source" emission reductions of NOx and PM (soot) up to 80% -- or -- a variable combination of emissions reduction and power increase -- adjustable "on-the-fly". Power increases of up to 85% will allow smaller sized power units to be employed in both mobile and stationary applications resulting in vehicle weight reductions and substantial fuel savings. Adaptable to Legacy, Interim, and Future vehicle programs.

The U.S. Army International Technology Center -- Southern Hemisphere has written that: "I have been impressed with this promising technology." "Beyond the obvious military applications, I am certain that commercial systems based on this technology could have significant potential both nationally and internationally."

- 3) <http://www.rotecdsgn.com>
- 4) PO Box 100
- 5) Northville, MI 48167
- 6) Mark D. Stefl, Director Business Development
- 7) Phone: 248-449-3108
- 8) Fax: 248-348-4561
- 9) Email: rotecus@aol.com

1) **Hunter Manufacturing Company**

2) Hunter manufactures personnel heating and cooling systems for both tactical and combat vehicles. These include independent fuel fired heaters and those using the engine's hot water. Cabs and van bodies are kept at more comfortable temperatures with these systems. Standard and customized systems are on contract with the US Army and OEMs.

NBC filters and overpressure systems are manufactured to military specifications under long term US Army contracts. These filter both biological and chemical warfare agents from the air stream, while capturing radioactive particles. Systems are sized for use with vehicle cabs through expansible shelters and buildings. The M48 and M48A1 combination Gas and Particulate filters have been used extensively in vehicle applications, along with the Model M93 GPFU, which includes the blower and control module. Other models are shown on the website.

Hunter's Applied Research Center, near Aberdeen Proving Grounds, works on advanced concepts in the NBC defensive/protection product area. Independent and contract R&D are both conducted at this facility

3) www.huntermfgco.com

4) 30525 Aurora Road

5) Solon, OH 44139

6) John Kennedy Sales Manager Ext 212

Reuben Harel Product Manager Ext 224

7) Phone 440-248-6111

8) Fax 440-248-1691

9) John.Kennedy@huntermfgco.com

Reuben.Harel@huntermfgco.com

1) **American Tank & Fabricating**

2) Fabrication and testing of metal and composites – cutting, bending, welding. Long length cutting and forming to precise tolerances. High-hard and high-strength materials. Specialty frame, structural and armor components. Rapid-turnaround prototype experience in specialty frame rails and bolt-on armor.

3) www.amtank.com

4) 12314 Elmwood Avenue

5) Cleveland, OH 44111

6) POC: Amy Roddey

7) Phone: 800-778-1108

8) Fax: 216-252-1500

9) Email: amy@amtank.com

1) **Chenoweth Racing Products, Inc.**

2) Chenoweth is a 30 year old company that designs & manufactures high performance vehicles for off-road applications. Chenoweth Light Strike Vehicles were used in Operations Desert Storm, Enduring freedom, and Iraqi Freedom.

3) www.chenoweth.com

4) 943 Vernon Way

5) El Cajon, CA 92020

6) Michael O. Thomas, President

7) Phone: 619-449-7100

8) Fax: 619-449-7103

9) Email: motco@aol.com

1) **Solectria Corporation**

2) Since Solectria's incorporation in 1989, the company has focused on the design and fabrication of tightly packaged, sophisticated power generation and energy management systems, and their integration into vehicles. Solectria develops and manufactures complete electric and hybrid drive systems and individual vehicle

components, and auxiliary (on-board) power systems -- AC induction drive motors with regenerative braking, high efficiency motor controllers, gearboxes, DC-DC converters, battery chargers, and various accessories and monitoring systems. Solectria's electric and hybrid-electric drive systems are found in cars, buses, trucks, and military vehicles worldwide. Solectria's power electronics are rugged enough for transportation applications in all types of operational environments and conditions, including for the military. Over 2,000 vehicles worldwide use Solectria components, from lightweight solar racing cars to full-size transit buses.

3) www.solectria.com

4) 9 Forbes Road

5) Woburn MA 01801 USA

6) Dean McGrew, Business Development Manager

Mark Federle, VP Sales & Marketing

7) Dean McGrew 978-697-8103 cell, 781-932-9009x240 office

Mark Federle 978-697-0119 cell, 781-932-9009x260 office

8) 781-932-9219 fax

9) mcgrew@solectria.com

federle@solectria.com

1) **Berkshire PowerTech, Inc.**

2) Design, development, and production of advanced power transmission systems for commercial and military vehicles. Past experience includes US Army Bradley and Crusader hydromechanical infinitely variable transmissions; and more recently, commercial high speed planetary drive for series hybrid transit buses (currently in production), and multi-range parallel hybrid class 5 truck transmissions. Currently under contract for design study for series/parallel crossdrive steering transmission for US Army FCS MGV program. Also designed wheeldrive system for FCS MULE and prior FTTS drive system. Fully ACE and ProE capable. Also do hydraulic systems design and electromechanical control systems.

3) Berkshire PowerTech.com

4) Columbia St. R&D Facility

157 Columbia St.

5) Lee, MA 01238

6) Bob Larkin; Director, Market Research & Product Development

7) 413 243 3766

8) 413 243 3761

9) blarkin@berkshirepowertech.com

1) **American Engineering and Manufacturing**

2) Areas of interest and expertise: AEM is a Service Disabled Veteran Owned and HubZone certified company that specializes in designing and fabrication of Titanium associated weldments using automotive manufacturing techniques to insure "Best Value" production approach. We draw on over 30 years of experience in the design and construction of low cost performance base vehicles (both on and off road) including

entire fire apparatus (pumpers), graders, and support vehicles. Our engineering includes both mechanical and electrical using AutoCAD and Solid Works. We are currently under contract to develop low cost manufacturing techniques for Titanium companies with the U.S. Army ARDEC. Our facilities include approximately 30,000 sq. ft. with bridge crane capacity to 10 tons and both manual and CNC machining centers to quickly bring concept design to prototype completion. Located in Northern Ohio, AEM has access to a vast array of manufacturing facilities especially in the cost competitive automotive industry.

- 3) 1374 West 28th Street
- 4) Lorain, OH 44055
- 5) Mike Winiasz, V.P. Operations
- 6) Phone: 440-277-1399
- 7) Fax: 440-277-4257
- 8) E-mail: mike.w@aemi.us

1) C.E. Niehoff & Co

2) Brief Description: C.E. Niehoff & Co. was founded in 1923 and specializes in manufacturing alternators and associated electric power products for automotive charging system and electric power management. We specialize in heavy duty, high output brushless alternators with output current from 30 Amps to over 500 Amps in both single and multiple voltages of 12V, 24V, 42V, and various other voltages for special use. Digital voltage regulators of our design are programmable to provide a variety of special operating features and fault detection means as well as interface with other embedded automotive systems. Our Power Management switching systems integrate multiple battery systems, enable batteryless operation with alternator power, and provide a variety of automatic protection features. Our engineering department uses state of the art development tools and ProE software that can interface with other development partners.

- 3) www.CENiehoff.com
- 4) C. E. Niehoff & Co.
2021 Lee Street
Evanston IL, 60202
- 5) Sampson G Chriscoe
Ordnance Market Manager
schridcoe@CENiehoff.com
Phone: 847 866-1593
Dave Stanton
Account Manager
dstanton@CENiehoff.com
Phone: 847 866-1715
- 6) Company Phone: 847 866-6030
FAX: 847 492-1242

1) ISE Corporation

2) ISE is a supplier and integrator of electric and hybrid-electric drive systems for heavy-duty vehicles. ISE offers product sales and engineering research and development of complete systems or subsystems. Product offerings are:

- a) APU (Auxiliary Power Unit), the energy and power source including the engine-generator, or fuel cell and DC-DC converter, and the fuel system.
- b) Siemens AC induction electric motor propulsion including the motors, inverters and control.
- c) Electrical energy storage with various battery options or ultra capacitors.
- d) Electrically driven accessories including compressed air, hydraulic pressure, air conditioning, and various ac power loads.
- e) Vehicle CAN (Control Area Network) SAE J1939 data bus and interfaces for integrated vehicle command, control, communication including wireless remote reporting with location, status, predictive maintenance, and remote fault diagnostics.

3) www.isecorp.com

4) 7345 Mission Gorge Road, Suite K

5) San Diego, CA 92120-1268

6) Tom Bartley, Manager of New Business; or Michael Simon, Chairman of the Board

7) Phone: (619) 287-8785 ext.146

8) Fax: (619) 287-8795

9) Email: tbartley@isecorp.com; or msimon@isecorp.com

1) Electronic Concepts & Engineering, Inc. (ECE)

2) Description: ECE is a proven developer of embedded electronics and real-time software to numerous DoD primes. Our experienced team of engineers have developed and qualified solutions for ground, marine, and aerospace applications. Our full range of services include: System Architecture and Design, Electronic Circuit Design & Analysis, Real-Time Software Design, Graphical User Interface and Tool Development, Printed Circuit Board Design, Product Qualification Testing and Validation, Mechanical Packaging Design, and Manufacturing of Electronic Systems. ECE is a Veteran Owned, ISO 9001 and AS9100 registered, Small Business.

3) www.eceinc.com

4) 1306 Kittle Rd

5) Holland, OH 43528

6) Dan Willis, Business Development

7) Phone: (419) 861-9000 x114

8) Fax: (419) 861-9002

9) Email: dan.willis@eceinc.com

1) Vista Controls, Division of CurtissWright Corporation

2) Vista Controls is an experienced IS Army supplier specializing in engineering design, prototyping, full scale manufacturing assembly and test of complex electronic assemblies including vehicle signal and control distribution, 1553 connections, VME systems and similar high quality military electronics.

- 3) www.vistacontrols.com
- 4) 30 Porter Road
- 5) Littleton, MA 01460
- 6) Patrick Lyness, Manager, Manufacturing Systems
- 7) Phone: 978-952-2032
- 8) Fax: 978-952-2001
- 9) Email: plyness@ltn.curtisswright.com