



## FEBRUARY 2021 | NAMC MEMBER SPOTLIGHT

### AUTONOMY

[Arete Associates](#)

[Concurrent Technologies Corporation \(CTC\)](#)

[University of Texas at Arlington Research Institute](#)

### POWERTRAIN SURVIVABILITY

[American Power Systems Inc.](#)

[Attollo Engineering LLC](#)

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#### Note:

NAMC will not alter submitted content.

Please make sure all information is correct and signed off on by your organization.



## AUTONOMY

Arete Associates | Arlington, VA | [Nontraditional](#)

POC: Jay Rouse | [jrouse@arete.com](mailto:jrouse@arete.com) | [Website](#) | [LinkedIn](#) | [Facebook](#)

What are your organizational goals?

Arete would like to provide sensors and sensing technology to a prime contractor.

What is something unique about your product or service?

Arete is unique in its low SWAP-C (Size, Weight, Power, and Cost) sensing with low false alarm rate.

Which Government Customer would you like to pitch your organization to?

We would like to pitch to NGCV – RFI.

Capabilities:

AI

Machine Learning

Modeling

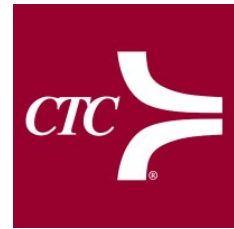
Sensing

Sensing

Remote Sensing

Detection

Automatic Target Recognition



## AUTONOMY

Concurrent Technologies Corporation (CTC) | Johnstown, PA |  
Nontraditional

POC: James T. Carnevale | [carnevai@ctc.com](mailto:carnevai@ctc.com) | [Website](#) | [LinkedIn](#) | [Facebook](#)

### What is something unique about your product or service?

Concurrent Technologies Corporation (CTC) is nonprofit applied research corporation executing prime contracts for 315 government agencies including all DoD departments and in collaboration with 125 industrial partners. CTC is recognized for three decades of first of prototypes, engineering across product lifecycle, technology transfer and our commitment to delivering overmatch capabilities to our clients, our nation and our coalition partners. As an example, CTC was the first company to develop a Hybrid Electric HMMWV for the Marine Corps.

### What do you consider your organization's differentiator?

Technical excellence, commitment to our client's mission and the demonstrated ability to deliver on time and on cost.

### What capability gaps are you able to fill and which industry colleagues would you like to know about them?

CTC is recognized for Rapid Design, Prototyping, Integration, and Testing to deliver survivability through Advanced Materials, Advanced Manufacturing, and Tactical Autonomy through AI/ML technologies. We offer a host of engineering disciplines to design, develop, integrate and test components, subsystems and systems including control systems. Our recently deployed AI/ML swarm technology prevails in highly contested A2AD environments.

### Capabilities:

25 years of GCV Solutions



## AUTONOMY

University of Texas at Arlington Research Institute | Arlington, TX |  
Nontraditional

POC: Lisa Miller | [lisa.miller@uta.edu](mailto:lisa.miller@uta.edu) | [Website](#) | [LinkedIn](#) | [Facebook](#)

### What do you consider your organization's differentiator?

The University of Texas at Arlington Research Institute (UTARI) assembles dozens of researchers with diverse expertise under one roof, with laboratory and prototyping facilities needed to investigate, develop and implement a wide range of research problems in autonomous systems, biomedical technology and material science.

The Automation and Intelligent Systems (AIS) division has decades of expertise in critical areas of autonomy and autonomous systems. Our expertise runs the gamut from theoretical researchers to skilled technicians, ready to address a full range of needs from basic research to prototyping, to testing. We also have experienced staff to assist in proposal writing, project management, and technology commercialization, as well as access to the research capabilities of UT Arlington faculty and support staff of the university.

### What capability gaps are you able to fill and which industry colleagues would you like to know about them?

We can fill capability gaps in critical areas of autonomy and autonomous systems, mainly:

Control Systems: Nonlinear control, adaptive control, verifiable safe control, distributed/decentralized control.

Robotics: Dynamics, path planning, mobile robotics, ground vehicles, air vehicles, advanced manufacturing, machine learning  
Computer Vision: Scene understanding, object classification, target detection and tracking, localization and mapping, fusion of vision and lidar/radar  
As an example involving all these areas, we have created a vision-based formation control approach for unmanned vehicles. It is amenable for a wide range of air and ground vehicles, and uses only vision data, so is suitable for GPS-denied environments.

### What are your teaming goals within NAMC?

UTARI and the Automation & Intelligent Systems Division work with traditional and nontraditional companies of all sizes. We have established a successful track record with DOD-sponsored SBIR/STTR projects and want to continue this through additional teaming. We also seek to establish more partnerships with larger companies to work on large-scale research projects.

### Capabilities:

Control Systems

Robotics



## POWERTRAIN

American Power Systems, Inc. | Davenport, IA | [Nontraditional](#)

POC: Phillip Potter | [phillip@americanpowerinc.com](mailto:phillip@americanpowerinc.com) | [Website](#) | [LinkedIn](#) | [Twitter](#)

### What do you consider your organization's differentiator?

With over 15 years of experience in service of government contracts, American Power Systems, Inc. is a small business as defined in the standards set forth by the US Small Business Administration and is currently working toward certification as a Woman-Owned Small Business.

### What capability gaps are you able to fill and which industry colleagues would you like to know about them?

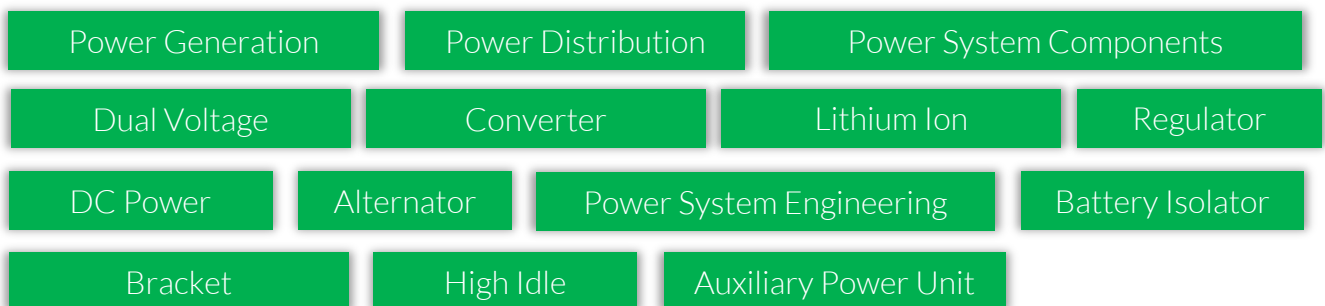
American Power Systems, Inc. (APS) helps clients resolve on-vehicle electrical current deficits with creative, cutting-edge, DC-power products and engineering services.

We specialize in customized power upgrades and dual-voltage systems for armored, non-standard commercial, security and light-tactical vehicle platforms. APS is well positioned to team with organizations in service of prime and subcontracts providing land- and water-based vehicles with nonstandard, high-power requirements.

### What do you want other NAMC Members to know about you?

The Australian Ministry of Defence, US Department of Defense, and US Special Operations Command have named American Power Systems, Inc. as a preferred power upgrade provider. The United States Department of State classifies APS products as life-saving equipment and has approved them for use with all current US DOS vehicle platforms.

### Capabilities:





## SURVIVABILITY

Attollo Engineering LLC | Camarillo, CA | [Nontraditional](#)

POC: Antonios Vengel | [tony.vengel@attolloengineering.com](mailto:tony.vengel@attolloengineering.com) | [Website](#)

### What are your organizational goals?

Attollo designs and manufactures our laser sensors and infrared detectors and cameras in its 34K square foot facility with over 3500 square feet of clean room space. We are world class experts in laser sensing and infrared imaging with goal to reduce SWaP and cost for our customers in this arena. We are currently 70 people strong and growing around our developmental and product efforts. Goals for all developmental effort is to get to a TRL 9 products that are reliable and appreciated by our customers.

### What do you consider your organization's differentiator?

Our laser warning device includes our own designed and manufactured InGaAs sensor and is paired with our electronics allowing us to hit lower price points than the competition. It is currently worn by our special operators differentiating them a 1.550um and 1.064um laser.

### Which Government Customer would you like to pitch your organization to?

Vehicle protection of all large and small army vehicles.

### Capabilities:

Laser Warning Device

SWIR

1064 Nanometer

InGaAs