



# AUSA Annual 2021 key points

**Future Vertical Lift (FVL):** The goals for the Army's future vertical lift (FVL) program to increase safety, performance, lethality and agility bring many technical challenges. Two specific challenges are flight safety certification and operation in degraded visual environments (DVE). Flight safety certification is required on increasingly more aircraft subsystems as military aircraft use civil airspace. DVEs make operation of rotorcraft dangerous and sometimes impossible, especially in uncleared landing zones (LZ).

- Abaco has **safety-certifiable flight computers** and related equipment designed to DO-178C and DO-254 with supporting artifacts that are audited by an FAA Designated Engineering Representative (DER) to shorten the developer's engineering time and cost and reduce program risk.
- Enhanced graphics processing with Abaco hardware lets pilots see the unseeable, improving safety and operational success in **DVE**. In our booth, you can see the video that explains our technology and talk with an expert.

**Next Generation Combat Vehicle (NGCV):** The Army needs to meet program goals to combine piloted and autonomous operation with modern firepower, protection, and mobility. To do this, it needs 360-degree situational awareness, vehicle command and control, advanced communications and more.

- The new **DAGRX** and **SAYBRX** small form factor rugged line replaceable unit (LRU) systems from Abaco enable NGCV developers to accomplish these initiatives at a low cost of integration. Their flexible I/O configurations and powerful silicon in small, rugged MIL-STD-810G enclosures make them an ideal fit for applications from weapon systems control to situational awareness to vision to tracking systems and beyond. Other configurable LRU systems like the EIU100 and GVC1001 bring even more power for I/O, graphics, and autonomy.

**Long Range Precision Fires (LRPF):** The LRPF mission to attack, neutralize, suppress and destroy targets beyond 500km using missile-delivered indirect precision fires requires the highest rugged embedded computing technology that gives full performance across a wide range of operating conditions. For developers to implement the most efficient autonomy architecture, these applications need autonomy platforms that integrate advanced CPU, GPU and FPGA processors, both separately and in combination. Fast, secure communication between sensors and shooters in critical.

- To meet these challenges, Abaco delivers rugged SWaP-optimized high-performance embedded computers, graphics and vision systems, communications, FPGA radar processing and AI deep learning capability.

**Modular Open Systems Approach (MOSA):** The DoD requires, as much as possible, new hardware and software systems comply with requirements found in VITORY, CMOSS, FACE, HOST and SOSA™ and other open standards. The much-anticipated Technical Standard for SOSA Reference Architecture, Edition 1.0 was released on September 28, 2021. Abaco supports this with a roadmap of 20+ products designed to align to the SOSA standard, many of which are already in production and ready to order.

## About Abaco Systems

**Abaco Systems** is a global leader in commercial open architecture computing and rugged embedded electronics. With more than 30 years of experience in aerospace & defense, industrial, energy, medical, communications and other critical sectors, Abaco's innovative solutions align with open standards to accelerate customer success.

**Abaco Systems** is a subsidiary of AMETEK, Inc., a leading global manufacturer of electronic instruments and electromechanical devices with 2020 sales of more than \$4.5 billion. [www.abaco.com](http://www.abaco.com)

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