

About Abaco

For 30 years, we have worked with our customers to deliver leading edge commercial off-the-shelf open architecture, rugged electronics for the most demanding applications in defense and industry – electronics that are characterized by minimal SWaP, and that benefit from our innovative extended lifecycle support. We’re present in hundreds of national asset programs in many countries around the world.



Bernie Anger
CEO, Abaco Systems

Although we have been supporting our customers for three decades, we’re also a start-up. Operating independently since December 2015, we’re reinventing ourselves based on three principles: innovation, delivery and customer focus.

Our commitment to innovation extends beyond a sustained and significant reinvestment in engineering. We are also innovating in every aspect of how we do business, so that we can set new benchmarks in customer service. When “better” is possible, “good enough” no longer is.

We understand how, in a changing world, you

face increasing pressure to deliver faster, more predictably and at a competitive price. That’s why we’re committed to raising the bar on every aspect of what we do - from concept to retirement - so that what we do aligns with what you need. Before you ask.

We also understand that our success is predicated on yours, and we’re building a culture where each one of our 750+ people represents your interests and frames every decision around the answer to one question: “What does this mean to our customer?”

We look forward to continuing to serve you.

Our vision

Our vision is to be your embedded partner of choice as you design and deploy mission-critical systems in the harshest, most challenging environments.

How do we plan to do that?



INNOVATE

Fresh, new thinking to create better ways of solving problems.



DELIVER

We live up to our commitments. Time after time. Every time.



SUCCEED

Our business only succeeds when our customers succeed. Period.



With development and manufacturing facilities in Huntsville, AL and Towcester, UK and offices throughout the USA, Europe and Asia, we serve customers worldwide.

“ We’re proud and honored that many of the world’s armed forces, and the organizations that serve them, have trusted us for so long. We know that what we do has a profound impact on them. Our number one goal is to continue to earn and deserve that trust, and to support their success. ”

WE INNOVATE. WE DELIVER. YOU SUCCEED.

Our expertise



Open architecture rugged COTS electronics

Starting with the latest commercially available silicon, we create solutions based on open industry standards. Then, we leverage our expertise in creating rugged solutions, packaging them for the harshest environments. That means our customers get the latest in performance at competitive cost with no-compromise reliability.

Process excellence

We understand the sensitive nature of our market, and have deployed robust processes across our business to ensure compliance. From counterfeit component avoidance through full traceability throughout production to diligent export control, our customers can trust that their information and products will always be in safe hands.



SWaP optimization

Abaco leads the trend for smaller, lighter platforms with our decades-long expertise in thermal management, allowing us to deliver maximum performance in environments that are highly constrained in size, weight and power. Optional air, forced-air, liquid and/or convection cooled deliver optimum cost-effectiveness for any application.

Product Lifecycle Management

We substantially mitigate the impact of obsolescence by creating products that remain in production for many years – and that we support for as many more years as our customers need us to. We also work to ensure that new Abaco products are backward-compatible, minimizing the cost of migrating to later generation technology.



High Performance Embedded Computing

We have extensive knowledge of processor architectures and deep understanding of how to integrate and optimize them. Our Center of Excellence works hand-in-hand with our customers to create highly complex solutions, advising on strategies to optimize efficiency and performance. Here, our AXIS development environment is invaluable.

Field organization

Our technical sales engineers and field application engineers bring decades of experience in helping to design, develop and support high performance embedded systems for mission critical applications. We often work as an extension of our customer's team, acting as trusted advisors - even when Abaco solutions don't fit the bill.





LAND

MLRS, PMS and CEEP are only three examples of the many major land programs that have chosen and deployed rugged embedded computing solutions from Abaco Systems – and of our ability to support programs with a deployed lifetime measured in decades. Built-in ease of upgrade/technology insertion, together with our unique PLM long term support program, have minimized the cost-of-ownership of these programs.

Leading prime contractors, systems integrators and OEMs turn to Abaco Systems for solutions that endure.



RES3000

Created for VICTORY compliance and optimized for size, weight, power and cost, this switch supports Abaco’s OpenWare, making it uniquely flexible and manageable.



General Dynamics AJAX

The General Dynamics AJAX for the British Army features scalable, open architecture Ethernet switches, gateway processors, data servers and video servers from Abaco that provide the backbone of the vehicle electronics architecture. The data and video servers allow the vehicle to store and distribute vehicle and scenario data and video around the platform and on into the wider connected battlefield. ●



Harris MLRS/Himars

Harris first chose Abaco’s rugged 6U VME PowerXtreme single board computers for the MLRS/HIMARS program at the turn of the century. Since then, Harris has consistently taken advantage of Abaco’s commitment to maximizing the value of customer investments with form-, fit- and function compatible upgrades – providing enhanced performance with minimal cost or disruption. ●



GDLS Abrams M1A2/CEEP

The US Army has deployed over 1,000 Abrams M1A2 tanks. Chosen by General Dynamics Land Systems for their performance and value for money, Abaco single board computers – based on Power Architecture – were deployed by General Dynamics Land Systems to enhance the vehicles’ core electronics performance. This technology insertion delivered enhanced processing, communications and graphics display capabilities to the M1A2. ●

SBC328

Intel Xeon-class performance combined with the ability to implement advanced security capabilities make the SBC328 a powerful, market-leading 3U VPX solution.



Raytheon MK-48 ADCAP

Abaco's rugged, high performance digital signal processors and single board computers were chosen by Raytheon for deployment in the MK-48 Advanced Capability (ADCAP)/Advanced Common Torpedo (ACOT) upgrade program. At the time, the MK-48 was the US Navy's premier heavyweight submarine-launched torpedo and was widely recognized as the world's most capable anti-submarine weapon. ●



Northrop Grumman UH-1Y, AH-1Z

The ability to guarantee extended availability over the multi-year lifetime of the program was a key element in Northrop Grumman's decision to award a contract to Abaco for rugged, high performance, high reliability MIL-STD-1553 and ARINC-429 avionics solutions. These were deployed as part of the Integrated Avionics System (IAS) that is at the heart of the Bell Helicopter UH-1Y and AH-1Z helicopters. ●



BAE Systems Spearfish

To provide advanced real time signal processing for the Royal Navy's anti-submarine and anti-surface Spearfish torpedo, BAE Systems turned to Abaco. Each torpedo's ESCU features a number of Abaco OpenVPX single board computers to enable destination finding and host submarine communication. The 6U development system provided straightforward deployment to the onboard 3U system. ●

SEA

When Raytheon was looking for COTS single board computers for the RAM program, it turned to Abaco Systems. Raytheon also turned to Abaco Systems for the ADCAP program. When General Dynamics was looking for a secure networking supplier for the FCS program, it turned to Abaco Systems.

Abaco Systems products and technologies are integrated into the most challenging environments where leading edge performance needs to be coupled with the ultimate in rugged reliability.



AIR

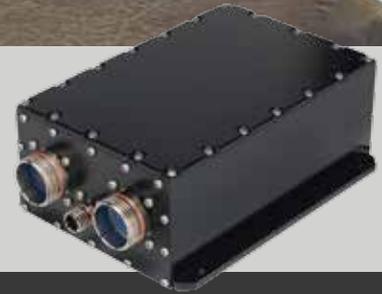
Few applications leverage the breadth and depth of Abaco's extensive product range, experience and expertise more completely than solutions for aircraft, helicopters and UAVs. DASS, Barracuda UAV, ASTOR, ATFLIR, AWACS, LAMPS and CAP all feature one or more of our solutions such as single board computers, avionics interfaces, graphics and imaging subsystems or DSP boards.

When the deployed environment is highly constrained in terms of size, weight and power, yet demands outstanding computing throughput, Abaco Systems has the solutions.



DAQMAG2A

This TRL9 video processing powerhouse is DO-160G qualified and mission ready. A complete, ready-to-run graphics subsystem, it is compact, lightweight – and rugged.



Northrop Grumman MQ-8 Fire Scout

When Northrop Grumman was looking for rugged, intelligent Ethernet switches for the MQ-8 Fire Scout unmanned helicopter, the company turned to Abaco for small, light-weight 10-port fully managed layer 2/3+ Gigabit Ethernet switches designed for size- and weight- constrained deployments. The switch, which was the only one that met Northrop Grumman's exacting specification, supports IPv6 and IPv4. ●



BAE Systems Eurofighter Typhoon

At the time of its introduction, the Eurofighter Typhoon was described as the world's most advanced multi-role combat aircraft. The program faced the challenge of inserting a new generation of technology into the electronic warfare suite of DASS (Defensive Aids Sub-System) - one of the aircraft's key sub-systems – and BAE Systems turned to Abaco to replace the existing General Purpose Processor (GPP). ●



Boeing B1-B

When faced with the need to keep the B1-B in service competitively, Boeing chose Abaco's rugged video/graphics processor to refresh the strategic bomber's capabilities in the form of a Vertical Situation Display Upgrade (VSDU). Key to Boeing's decision was Abaco's ability to demonstrate DO-178B certification, and to customize the processor to Boeing's requirements. ●



Energy

Few environments are more challenging for computing than sub-sea exploration, not least because their inaccessibility means 100% reliability is non-negotiable. We have supported customers in creating networks to bring sonar signals from the sea bed to the vessel, deploying rugged switches capable of withstanding intense vibration and thermal extremes. ●



Transportation

Today's railroad platforms feature extensive networking technology - both within the locomotive and throughout the train. Abaco has provided rugged managed and unmanaged switches as well as other networking technologies - capable of withstanding extremes of shock, vibration, heat and electrical noise - to manage these networks with absolute reliability. ●



Technology

Sophisticated semiconductor fabrication systems must operate in environments that are completely clean, sterile and dust-free - but they still need high performance and total reliability in constrained spaces. Abaco provides leading OEMs with a range of single board computers, backed by the long term availability and support that is critical to their success. ●

mCOM10-K1

Delivering an incredible 326 GFLOPS of performance yet consuming only 10 watts of power, this tiny COM Express module is ideal for SWaP-constrained environments.



INDUSTRIAL

For commercial and industrial applications, we leverage our experience in developing high performance, rugged solutions for mission critical, life-or-death applications for many of the world's armed forces and apply it to a broad range of manufacturing, infrastructure and transportation environments that are no less demanding.





MANUFACTURING SERVICES

With over 30 years' experience in manufacturing sophisticated, high performance, high reliability electronics, it's no surprise that many other companies - in military/aerospace, medical, industrial/commercial and motor racing, among others - have chosen to leverage Abaco's manufacturing expertise.

We offer a range of capabilities including PCB prototyping and assembly, electronics sub-assembly and full turnkey box build services. That's backed up by extensive consultancy that helps our customers achieve the optimum outcome in terms of technology choices, manufacturability, testing strategy, sourcing and much more.

Our manufacturing services business is wholly focused on ensuring the success of our customers' projects. Our extensive expertise, our account management team, the reliability of our supply chain and our absolute commitment to quality principles all exist exclusively for the benefit of our customers.

Our portfolio

AVIONICS

TRANSLATING PROTOCOLS INTO ACTIONABLE DATA

Decades-of deep understanding mean we provide solutions on multiple platforms that allow you to focus on managing data, not decoding it



GRAPHICS AND VIDEO

HIGH PERFORMANCE FOR DEMANDING APPLICATIONS

We take leading edge commercial graphics technology and create high performance solutions with minimal SWaP and rugged reliability



HIGH PERFORMANCE EMBEDDED COMPUTING

DATA CENTER CAPABILITY IN RUGGED SYSTEMS

Open standards and architectures from the commercial world, backed by resources to help you create, optimize and deliver ultimate performance



I/O AND STORAGE

COMPLETING THE SOLUTION

IndustryPack modules, adapters, bus interfaces, digital I/O modules, A/D and D/A converters, and serial communication from a one-stop source



For latest product releases and information visit:
abaco.com/portfolio





NETWORK COMMUNICATIONS



SMARTLY OPTIMIZED SWITCHES AND ROUTERS

Combining the latest silicon with game-changing OpenWare software delivers optimal SWaP, performance, security and flexibility



RUGGED SYSTEMS AND SOLUTIONS

PRE-INTEGRATED TO SAVE TIME AND COST

Fast time-to-market with minimal risk and cost, leveraging our expertise in integration of rugged systems – custom-built or off-the-shelf



SENSOR & IMAGE PROCESSING

CAPTURING AND DELIVERING REAL WORLD DATA

Turning sensor-acquired data into actionable information in the shortest time and at the lowest bandwidth in the most demanding applications



SINGLE BOARD COMPUTERS

CHOICE, PERFORMANCE, LONG LIFE

Latest-generation computing technology in multiple form factors and architectures, backed by long-term support to minimize risk and cost



AXIS SOFTWARE

ADVANCED INTEGRATED SOFTWARE ENVIRONMENT

The industry's most advanced, most intuitive embedded software development environment, AXIS enables rapid software development

Global coverage



WE INNOVATE. WE DELIVER. YOU SUCCEED.

Americas: **866-OK-ABACO** or **+1-866-652-2226** Asia & Oceania: **+81-3-5544-3973**
Europe, Africa, & Middle East: **+44 (0) 1327-359444**

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