

VISTA Controls DOD Experience

Who is VISTA Controls?

Recently considered a small business DOD contractor, through organic growth and acquisition, VISTA Controls is now part of a much larger company – the Curtiss-Wright Corporation. The legacy of the Curtiss-Wright Corporation is one of relentless technological innovation that traces its direct origins over a century ago to the very first manned, powered flight at Kitty Hawk. Curtiss-Wright has been leading the way ever since that historic day, and now the Corporation has laid the foundation for the future by unifying with the business units of VISTA Controls, Peritek, PrimaGraphics, Systran and Dy4 Systems to create the Embedded Computing organization of Curtiss-Wright Controls.

Alone, each of these companies boasts a history of over twenty years leveraging leading edge COTS (Commercial Off-The-Shelf) technology and delivering to the defense and aerospace industry, with reputations built on providing proven, state-of-the-art, open systems architecture commercial and rugged boards and chassis for the embedded computing market. VISTA Controls was one of the very first, true military COTS suppliers, leading the development and standardization of today's standards-based computer architectures. Combined to form Curtiss-Wright Controls Embedded Computing (CWCEC), they have become something more than the sum of their parts.

For system integrators, CWCEC offers a single source for commercial and rugged grade, open architecture COTS and application-specific computing solutions – solutions that span the full range of embedded system technology from board-level products to fully integrated subsystems.

VISTA Controls focus on our customers needs to relieve scarce, internal resources to develop military-qualified hardware. We accomplish this by drawing upon both our own, and the combined resources of other CWCEC companies, to provide hardware platforms integrated with software including Built-In-Test, along with tested and certified real-time operating systems. These subsystems are then ready to host our customer's application software, delivering unmatched service and virtually unlimited hardware solutions. And all these resources are backed by one of the defense and aerospace industry's most respected and innovative suppliers – the Curtiss-Wright Corporation.



Applicable Technologies

Exponential growth in performance and capability of electronics technology can, and is being passed through not only to weapons systems, intelligence gathering and communications, but also to reduce potential threat elements that can put our war fighters in harms way.

Starting with COTS

To provide our customers access to the highest performing technology available, our designs begin with leading edge, Commercially-available Off-The-Shelf (COTS) technology based on industry standards and open system architectures. VISTA Controls provides a single point of access for application engineering, sales, marketing, technical and programmatic support. Both commercial and rugged board and system customers now have access to the full range of design, development, qualification and deployment expertise of all the component companies of the Curtiss-Wright Corporation.

Established COTS supplier to the DOD

A key element to VISTA Controls success is the understanding of both our customer's and the program's needs and providing not just a product, but a solution. The word "solution" has been vastly over used by system suppliers; but for VISTA Controls providing solutions is a reality. Since it's inception in 1985, VISTA Controls has developed and grown with the concept of providing electronic subsystems for military programs based on open system, standards-based COTS computing architectures. That process has enabled us to understand the needs and complexity of the support necessary to make the program successful; not only at the programs introduction but through the program's entire life-cycle resulting in lower program implementation costs.

Headquartered in Santa Clarita, CA and with operating units in Littleton, MA, VISTA Controls provides system integrators with access to a true end-to-end supplier, with technology leadership in every aspect of advanced system design, including;

- State-of-the-art packaging and conduction cooling
- High speed serial and data fabric I/O
- High density computing
- Specialized enclosure design
- Custom and component engineering services
- Complete life-cycle support and programmatic services

VISTA Controls also offers the industries most complete, and innovative product and integration services with proven program expertise in hardware and software development, enclosure design and cooling technologies, specializing in:

- Mission Computers
- Fire Control Subsystems
- Imaging, Actuation and Stabilization Subsystems
- Ammunition Handling Subsystems
- Flight Control Computers
- Vehicle Management Subsystems, and more...

Defense and Aerospace program experience

Innovative companies like VISTA Controls convert technologies found in every day commercial applications into products that are actually utilized in military environments today. VISTA Controls transforms the latest generation, highest performance processor silicon into DOD computing subsystems for programs including:

- Avenger (Pedestal Mounted Stinger)



- RQ-4A Global Hawk
- M1A2 MBT (Main Battler Tank)
- M2A3 Bradley Fighting Vehicle
- EFV (Expeditionary Fighting Vehicle)
- C4I FBCB2 (Force XXI Battle Command, Brigade-and-Below)
- M1128 Stryker MGS (Mobile Gun System)
- FCS (Future Combat Systems) vehicles
- P-3 Orion ASW aircraft

DOD programs of this caliber are key to not only VISTA Controls' long-term success, but more importantly the program's success and effectiveness to the war fighter.

VISTA Controls is one of the largest suppliers of ruggedized embedded computing subsystems for our defense and aerospace customers. Since the 1980s, VISTA Controls has supported the industry's leading prime contractors in numerous applications and a variety of ground, naval and airborne programs with customers that include:

- BAE Systems
- Boeing
- DRS
- GE
- General Dynamics
- ITT Industries
- Lockheed Martin
- Motorola
- Raytheon
- Smiths Industries
- Telephonics
- United Defense
- and many others...



Significant advantages of our products and services

Latest Technologies

One of the most important elements that a company like VISTA Controls brings to the military, aside from the obvious of the latest technology, is the ability to manage technology obsolescence. The exponential growth in the technology available is a double-edged sword. One of the key industrial advantages that the United States has is its ability to turn ideas into reality very quickly; that process produces a very short life span for many electronic components, a fact that can confound many military programs. Having the ability to manage this issue is now more than ever, crucial for the long-term success of both today's and tomorrow's military programs.



Customization, design and support services



When a program requires a solution that goes beyond COTS, VISTA Controls can repackage our existing open systems architecture COTS hardware and software products into unique, customer-specific form-factors to solve the most difficult legacy subsystem upgrades, and mitigate risk by reducing development time and program costs. We are the industry leader in defining and delivering programs that meet unique requirements and ensure product life-cycles to meet the most stringent long-term program needs. VISTA Controls has also developed obsolescence mitigation and technology insertion programs that make it a leader in this field.



Ease of integration

With the ability and knowledge of the industry's leaders at its disposal, VISTA Controls has the capacity to take an embedded system customer from any given design starting point and support them through the entire integration process, from board-level to fully integrated subsystems as their program or application requires. It's a unique ability – one that offers our customers a unique advantage. And it's one more way that we put innovation in motion.



Obsolescence management and lifecycle support

For our customers that require enhanced services including custom engineering, obsolescence and life-cycle services, we've developed a comprehensive obsolescence management programs tailored to meet specific needs. Our technology management and technology insertion programs manage operation, sustainment and reduce life-cycle costs. Approaches to obsolescence management include, but are not limited to;

- Data Package Management
- Component device and die banking
- Requalification testing
- Legacy electronics parts re-design
- and the manufacture of Form-Fit-Function Line Replaceable Units (LRUs).

Software and application engineering

VISTA Controls work closely with our customers to deliver market-leading software applications expertise and innovative product solutions. When our customers require, VISTA Controls' application engineers will guide customers through their application code development process, including real-world, hands-on expertise for a wide variety of environments including all of the leading embedded industry operating systems.

Realizable Lower Costs

Working with the DOD through the prime contractors from a programs outset enables VISTA Controls to offer the most appropriate technology and product for the need; resulting in the most cost-effective solution.

Companies like VISTA Controls develop electronic building blocks based on COTS, internationally adopted standards-based technologies that represent a vast available inventory for the DOD and primes from which they can select to assemble an electronic subsystem processing unit that fulfills our customer's and the war fighter's needs. These building blocks are developed

at the company's expense and are available for the entire universe of military programs. A prime contractor's ability to select from products already available rather than doing a ground-up development effort offers major R&D savings to the DOD in both time and money.

Therefore, the use of COTS components as key subsystem building blocks maximizes the re-use of both common hardware and software building blocks, tightly coupled with the programmatic support services we deliver. This approach decreases our customer's time-to-market and lowers their overall program development costs.

How can these technologies affect war on terrorism?

A key element in the war on terrorism is the ability to obtain information. Electronics must rank very high on the list of tools used to gather information; from remotely controlled vehicles: surface, naval or airborne, to electronic information gathering. The latest and most powerful technology is one of the greatest tools available for countering terrorism. Companies like VISTA Controls are at the forefront of converting that technology into deployable systems and providing them quickly and affordably, including off-the-shelf, low cost perimeter asset protection systems including QUPID.

