

Capability Statement



Critical Communications, Controls and Instruments, LLC

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Operating as a Small Business Entity
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Overview

C3I offers highly specialized design, development, testing, manufacturing, training and logistics support of electronic hardware and software systems to control Flight Deck and Hull, Mechanical, and Electrical equipment and systems for our naval, marine and commercial customers.

C3I's Aviation Lighting System Control Panel Set (ALS-CPS) of cybersecure hardware and software has been fully qualified by Naval Air Warfare Center Aviation Division Lakehurst, NJ and assigned as a Program of Record with an Authority to Operate for installation on all new construction Naval and Coast Guard Air Capable Platforms. ALS-CPS is used to control flight deck systems during helicopter launching and recovery operations at sea.

C3I's Advanced Communication and Control System® (ACCS®), with more than 120 individual pieces of electronic equipment and a comprehensive software program installed onboard each ship in the USS ZUMWALT (DDG 1000) class, controls nine separate flight deck and shipboard systems demonstrating the ability to control Hull, Mechanical and Electrical systems as well as NAVAIR's Next Generation Visual Landing Aids for flight deck operations.

Core Competencies

- Full team of highly experienced Electronic, Software, Systems, Mechanical, Quality, Manufacturing and Cybersecurity Engineers
- Successful NAVAIR and NAVSEA Program Management, Equipment Qualification, and Systems Engineering Technical Review evolutions
- Complete familiarity with DCAA and DCMA Financial, Planning, Supply Chain, Material Handling, Procurement, and Government Contracting processes and requirements
- Highly skilled team with expertise in supporting shipyards to achieve Flight Deck and Aviation Facilities Certifications
- Extensive experience in drafting Hardware and Software Technical Documentation (CAD drawings, CDRLs, Technical Manuals, Requirements tracking tools, Project Planning, and Software revision control tools)
- Obsolescence Planning (DMSMS) and Design Improvements
- Software Block Upgrades release and documentation
- Operator and Maintainer Training Courses
- Shipboard Installation, troubleshooting, and Systems Integration Support
- Logistics Support
- NAVAIR and NAVSEA Small Business Innovation Research contracts with Phase III commercialization success
- New Product design and development
- Cybersecurity compliance
- Operating as a Small Business owned by Triad Capital Management, LLC
- ISO 9001:2015 certified



ACCS and ALS-CPS Capabilities

Comprehensive flight deck and ship-wide integrated communication, control and monitoring for:

- Navigation and topside Lighting
- Solid State Advanced Flight Deck Lighting (AFDL)
- Fiber Optic, Incandescent and Halogen systems
- Flight Deck automated Personnel Safety Barriers, Telerobotic Firefighting Nozzles and Fuel Quality Monitors
- Flight Deck Status and Signaling Systems
- Next Generation Visual Deck Landing Aids
- Advanced Stabilized Glide Slope Indicator
- Deck Status Displays
- Horizon Reference Systems

C3I's ACCS and ALS-CPS systems incorporate:

- ABS compliant architecture for shipboard control systems
- RS 485 multi-drop communication interface units with patented fault tolerant loss of string prevention
- Cybersecurity compliant software and hardware designs
- Proven capability and reliability with demonstrated performance onboard U.S. Navy, Coast Guard and MSC ships
- Modular software with ease of integrating new generation end user devices and other vendor's peripheral equipment
- Open Architecture software designs based on Industry Standard Communication protocols
- ICON-based Graphics User Interface
- Night Vision touch screen control panels with daylight readability
- Fully capable of expanding the control capabilities to include shipboard H, M, & E systems

Key Customers and Programs

- **NAVAIR NAWCAD Lakehurst, NJ:** *ALS-CPS Qualification/ SETR approval, POR, ATO, Hardware Production Basic Ordering Agreements for Air Capable Ship installations, training, logistics support, maintenance support, DMSMS, Cybersecurity compliance*
- **NAVAIR PMA 251:** *LPD 28 Ship Night Vision Survey, procurement, and installation support*
- **NSWC PD:** *ALS-CPS, DDG 1000 ACCS logistics support, ACCS Cybersecurity compliance*
- **NAVSEA PMS 500:** *DDG 1000 ACCS and software upgrades*
- **GD BIW:** *ACCS hardware and software procurement, ship installations, technician training, upgrades, network grooming*
- **Huntington Ingalls Industries:** *ACCS hardware procurement, ship installations, troubleshooting, training, network grooming*
- **BAE Systems Ship Repair Facility:** *Ship installations, troubleshooting, training, network grooming*
- **Maritime Applied Physics Corporation:** *ACCS hardware procurement, equipment qualification, design support, technical documents, upgrades, design improvements*
- **IDEX (Akron Brass):** *ACCS hardware procurement, equipment qualification, design support, technical documents, upgrades, design improvements*
- **Defense Logistics Agency:** *ALS-CPS and ACCS hardware procurement*



ALS-CPS 12" and 19" NVIS Control Panel

Network Switch

Modular Protocol Controller

LED Flex Driver Module

Variable Transformer Power Control Module

Universal Night Vision Friendly Dimmable Shipboard Monitor