

## Product Development LifeCycle

### Services Offered by Earl Integrated Power & Controls

#### Design

High Temperature Design & Analysis  
Shock & Vibration Design & Analysis  
Custom Enclosures  
EMI Shielding, Gasketing, & Filtering  
3D Modeling

#### Build

Prototypes  
Entire Shipsets

#### Qualification Testing

MIL-STD-461E	Electromagnetic Compliance
MIL-STD-901D	High Impact Shock
MIL-STD-167-1	Shipboard Vibration
MIL-STD-810F	High Temperature & Humidity
MIL-STD-1399	Shipboard Power
MIL-STD-108E	Degree of Protection

#### Documentation

MIL-STD Test Procedures  
MIL-STD Reports  
Assembly & Installation Drawings  
White Papers  
Navy Approval Letters (High Impact Shock)



Complete Military COTS Turnkey Solutions

#### Areas of Experience:

Machinery Control & Monitoring Systems  
Propulsion Controls  
Gas Turbine Controls  
Video Surveillance & Security Systems  
Networking Components & Systems  
PLC Controls  
Shipboard Consoles  
Operator Interface Panels  
Variable Speed Drives  
Bulkhead Mounted Displays  
Uninterruptible Power Systems

Earl Integrated Power & Controls has been a provider of quality engineered electrical control systems, consulting services, engineering, manufacturing and products since 1995. Our sound engineering and design principles, innovative concepts and advanced technology have assisted companies in the maritime, government and commercial industry. Headquartered in Hampton Roads, our location provides proximity to the largest military complex on the East Coast and one of the largest ports in the U.S. For more information, visit [www.earl-ind.com](http://www.earl-ind.com).



**EARL INDUSTRIES**  
INTEGRATED POWER & CONTROLS

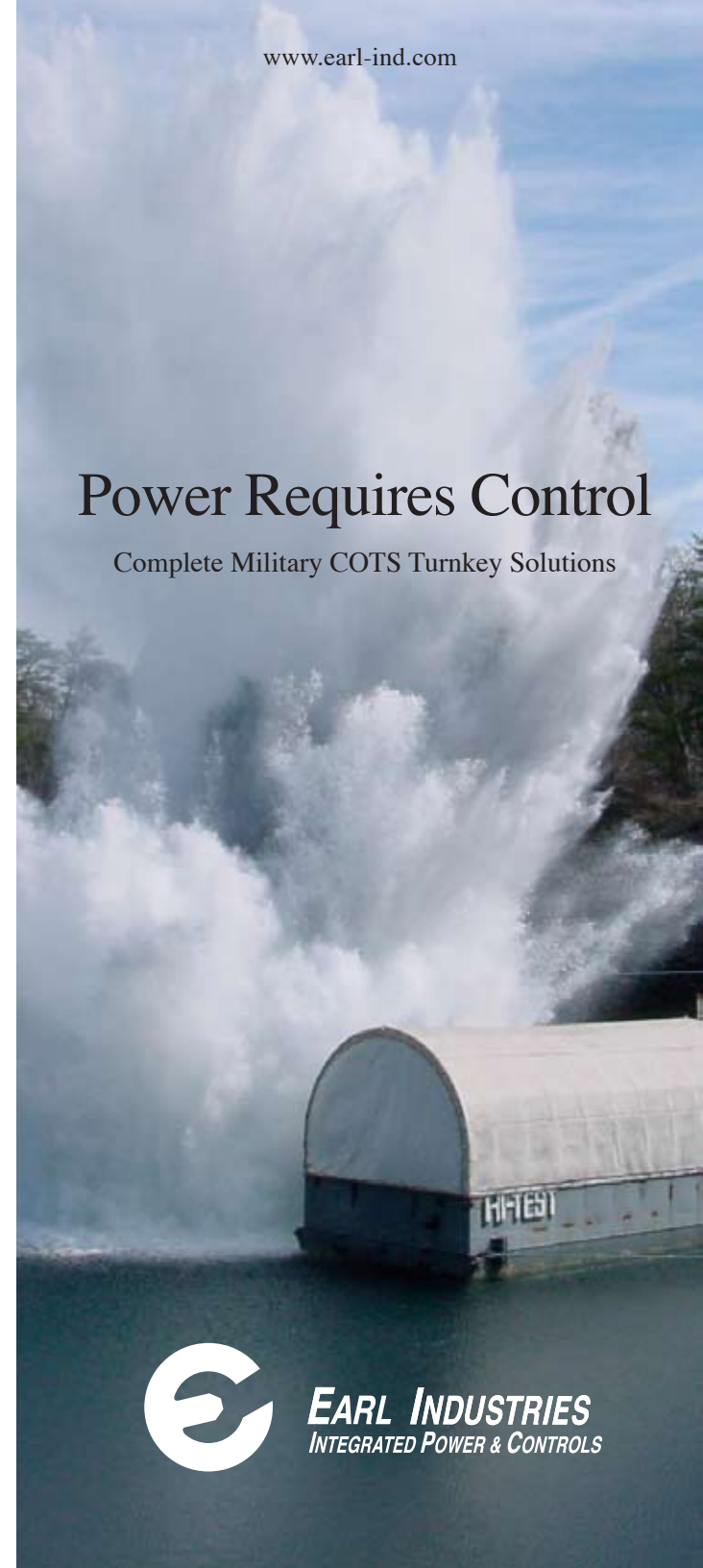
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# Power Requires Control

Complete Military COTS Turnkey Solutions



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## It Pays to pay attention

Today's commercial off-the-shelf (COTS) products are playing a critical role in helping the military stay in line with technology, while holding the line on costs. As an established systems integrator, we leverage our OEM pricing agreements and long standing relationships with several automation and control suppliers to provide the right technology at competitive rates.

Unlike larger firms, our engineers specialize in complete product design; including electrical, mechanical, functional, & environmental. Having an in-depth knowledge of the interrelation of each of these areas results in greater project continuity and faster development times. This streamlined approach translates into cost savings for our customers. Though COTS products are designed for harsh industrial environments, meeting the military's rigid requirements for these products is another matter. We make a point of working closely with each customer from concept to design to implementation in creating products that meet or exceed the government's standards for ruggedness and survivability, down to every detail.



Whether we custom design or build to your specifications, EIP&C's qualification testing will ensure that your COTS products gain the government's stamp of approval.

## Full MIL-STD Qualification IS OUR GOAL

The functional and environmental expectations of government contracts require a disciplined approach. Strict testing is essential; hands-on experience is invaluable.

Earl Integrated Power & Controls has successfully designed, built, tested and certified equipment under the following Mil Standards: MIL-STD-901D, MIL-STD-461E, MIL-STD-167-1, MIL-STD-1399, MIL-STD-810E, and MIL-STD-108E. As a result of the Navy's push to move towards commercially available equipment packaged to meet Military requirements, EIP&C has dedicated an engineering group specifically devoted to this effort. We have accumulated a history of successes and advancements in this field.

In partnership with Earl Integrated Power & Controls, our customers have direct access to our staff of engineers and technicians, and all of the innovative technology that comes with them. We'll stay involved through fabrication, installation and testing of the finished product.



*Complete product modeling ensures parts are designed correctly the first time, and it becomes a baseline from which to validate requirements early in the design phase.*

### **Innovative Enclosure Designs:**

- Custom Mounting Solutions
- Submersible, Quick Entry
- Light Weight
- Dense Cable Entry
- Active & Passive Cooling



*Gas turbine controls.*

*Using actual high impact shock test data, models generate predicted accelerations and displacements in all three axes providing a high degree of confidence before testing.*

