



Secure Avionics Systems

Lightweight, low-power, ruggedized components and security

- Advanced aircraft cryptographic systems
- Secure mission systems
- Mode 4/Mode 5 interoperable IFF



As a leading supplier of cryptography for avionics systems, General Dynamics C4 Systems brings over 40 years of Type 1 system development experience to customer platforms. The subassemblies we have developed range from boxes to boards to chips. Our Avionics Systems include some of the most advanced hardware, software and mechanical designs, integrated to meet the community's high standards for lightweight, low-power, ruggedized components and security.

In addition to the many discrete legacy crypto systems we have designed and built, we are currently

building crypto systems for the F-22A Raptor and F-35 Lightning II. We also design and build IFF (Identification Friend or Foe) crypto solutions for legacy platforms making them simultaneously interoperable with IFF Mode 4 and the emerging IFF Mode 5 standard.

As part of our integrated core-to-edge solutions, General Dynamics provides Secure Interface Systems (SIS) to provide cryptographic security from mission planning to the platform.

The General Dynamics approach

Processes and certification for optimal development and lowered cost

Our experience providing proven solutions, combined with constant investment in leading-edge technology, enables us to develop state-of-the-art systems to satisfy customer needs. Combining technical expertise with strong program management, and backed by ISO 9001:2000 Quality Management System certification and an independently evaluated Software Engineering Institute (SEI) CMM® Level 5 software process, we provide an environment that optimizes the development cycle and ultimately lowers cost for development and production.



Proven performance

Because of our extensive experience with cryptography and avionics systems, we are uniquely positioned to help customers with the difficult choices that will impact the operation of the fielded system. We work to develop an understanding of not

only the requirements, but in-depth knowledge of how the equipment will be used. Our experience has shown that operational scenarios and personnel clearances often affect security design and, if not considered during the design process, may result in overly restrictive operational policy.

Reduced risk

Our program management expertise reduces overall risk to customers because we understand how to quantify program and technical risk and assess the potential impact on cost and schedule. The ultimate result is early identification of risk, facilitating solid risk management and mitigation strategies.

General Dynamics C4 Systems' experience is broad and deep: from security systems that leverage COTS cellular phones for Type 1 applications, and embedded technology now pervasive throughout military systems, to full custom-designed systems for military aircraft. We understand the avionics systems interrelationships between Type 1 security, programmability, interoperability, reliability, maintainability and Key Management. Our processes are designed to focus on the customer, but our engineering expertise crosses multi-domain technologies, multi-service and multi-agency practices.

Manufacturing area with Top Secret facilities and Class 10,000 clean room

When it is time to produce equipment, our manufacturing expertise is unparalleled. All of our designs are built with manufacturing and testing in mind. With in-house manufacturing expertise as an integral part of the design process, fabrication, assembly and test considerations are addressed from the outset of any program. Our designs not only meet requirements, but also maintain development model performance during subsequent production.

Results-driven

At General Dynamics C4 Systems, we have the proven ability to solve the tough problems. Let us apply our approach and experience to your system to achieve your desired results.



GENERAL DYNAMICS
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