



# United States Coast Guard

Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance & Information Technology (C4ISR&IT) Strategic Plan

Fiscal Years 2015-2019









**To the Men and Women of the Coast Guard:**

I am pleased and excited to present the U.S. Coast Guard's Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance and Information Technology (C4ISR&IT) Strategic Plan for Fiscal Years 2015-2019. Driven by our Homeland Security and Defense missions and operations, the goals and objectives that make up this plan are also guided by the Commandant's Direction of Service to Nation, Duty to People, and Commitment to Excellence and align with Federal and Departmental Guidance.



This plan is both an update to and an expansion of the previous C4IT Strategic Plans put forth by my predecessors. It is built upon recommendations put forth by the C4ISR&IT Resource Council encompassing the entire C4ISR&IT architecture. It describes command, control, communications, information technology and cyber security solutions designed to implement our core missions, protect the enterprise, enable innovation, and provide efficient and effective services to users. It also ensures that investments are well coordinated and prioritized to address dynamic operational challenges and cope with declining budgets. Since the last plan was released we have made great strides in our efforts to implement Portfolio Management by standing up and utilizing C4ISR&IT portfolios to administer and manage our C4ISR&IT investments. These portfolios are accountable to me, the Chief Information Officer (CIO), through the C4ISR&IT Resource Council. They are tasked with the execution of this plan as well as the creation and maintenance of roadmaps for the systems within their respective portfolios. These roadmaps will tell the story of how we will meet the strategy laid out in this plan and are scheduled for completion in FY15 Q3.

Together, we will drive innovation and explore new alternatives as a way of enabling the Safety, Security and Stewardship of our Nation's waters. Our capabilities must enable the combating of nefarious global networks, the securing of our maritime borders and the safeguarding of national commerce. Also, as cyber threats continue growing and present major challenges to the organization, we must improve our defensive posture while developing strategic offensive capabilities. We shall continue persistent efforts to advance our architecture in order to facilitate data driven decision making for Coast Guard operators and support staff, expanding on successes within maritime domain for operations and increasing accountability within our business processes and internal controls for mission support. Likewise, we will continue to consolidate data assets from command and control, intelligence, logistics and other systems to improve collaboration with Department of Defense (DoD) and Department of Homeland Security (DHS) agencies in managing and sharing data, enhancing maritime security, and safeguarding cyberspace. This strategy, and associated goals and objectives, will guide the Coast Guard's engagement as a key component for "Unity of Effort" with DHS, while also implementing within the DoD Joint Information Environment.

I envision a vastly improved and agile IT environment that will better serve the mission, the end user and the American people. Your commitment to the execution of this plan will guarantee that our limited resources are being used effectively. In alignment with our motto of "Semper Paratus," it is critical that we provide the Coast Guard "ready" services with accurate information at the right time in all maritime domains.

Best,   
**Rear Admiral Marshall B. Lytle**

*Assistant Commandant for Command, Control, Communications, Computers and Information Technology  
Chief Information Officer  
Commander, Coast Guard Cyber Command  
United States Coast Guard*



## Table of Contents

U.S. COAST GUARD COMMANDANT'S DIRECTION .....	5
C4ISR&IT MISSION.....	6
Mission.....	6
Core Values and Concepts .....	6
C4ISR&IT GOALS AND OBJECTIVES .....	7
Overview .....	7
THE WAY AHEAD.....	13
APPENDIX A: FY15-19 C4ISR&IT PERFORMANCE PLAN.....	14



# U.S. COAST GUARD COMMANDANT'S DIRECTION

Admiral Paul F. Zukunft published three guiding principles for his watch as Commandant published in the Commandant's Direction 2014.

Each principle reinforces the others and they collectively inform strategic, operational and resource decision-making throughout the Coast Guard.

Priorities are identified to focus our efforts in meeting anticipated challenges and risks.

Admiral Zukunft's three guiding principles are as follows:

**Service to the Nation:** As a leader in the global maritime community we will align Coast Guard strategies with DHS priorities to advance national interests, continue to invest in the 21<sup>st</sup> century Coast Guard, enhance partnerships with stakeholders in the maritime community, foster intelligence capabilities and promote cyber security in the maritime domain. We will place service above self as we advance our Nation's interests at home, at sea, and abroad. Today and into the future we will keep the Nation secure and its maritime gateways connected to the world.

**Duty to People:** As a Coast Guard we will demonstrate moral courage and commit to a safe, inclusive and respectful workplace. We will align recruiting, career progression and workforce structure to meet future requirements. By honoring our duty to people, we are committed to implementing initiatives to ensure a workforce that reflects the same diverse thought, experience and talent found in the richness of American society. The well-being is critical to the success of our Service.

**Commitment to Excellence:** Excellence is our standard. The American public knows that when we are called into action, we will respond courageously and effectively. To do this, we must strive to advance our commitment to a more proficient workforce, ensure efficiency across all Coast Guard activities through effective planning and sound risk management. We must modernize our financial management system and enhance unity of effort through operational planning, logistical support and execution with DHS, DoD and other partners.

*-Admiral Paul F. Zukunft, Commandant, U.S. Coast Guard, Commandant's Direction 2014*



# C4ISR&IT MISSION

## MISSION

To enhance Command, Control, Communications, Computers, Intelligence, Surveillance , Reconnaissance and Information Technology's value in the performance of Coast Guard missions; accomplished by developing and aligning enterprise strategies, policies, and resource decisions with the Coast Guard Strategic Goals, mandates, and customer requirements.

## CORE VALUES AND CONCEPTS

Interrelated core values and concepts guide the way we, as C4ISR&IT, conduct business. These core values and concepts are summarized below.

- **C4ISR&IT Leadership:** We believe that C4ISR&IT leaders must set clear technology direction, have high expectations for system delivery, create a customer-focused culture, and balance the needs of all stakeholders to ensure that we meet mission requirements. C4ISR&IT leaders must inspire their workforce and motivate them to grow professionally, contribute wholly, and be creative.
- **Visibility and Transparency:** We believe that all aspects of C4ISR&IT management must be visible and transparent to C4ISR&IT system managers, as well as stakeholders, at all times during system planning, development, and support. Visibility and transparency are particularly important to C4ISR&IT spending and system performance. To this end, we support a collaborative investment management process that gives the entire organization access to C4ISR&IT priority decisions.
- **Guidance:** We believe in establishing guidelines that ensure organizational agility and effective acquisition, application, and management of C4ISR&IT systems through a policy and practices framework, and interactions with stakeholder organizations. Our guidelines provide an appropriate level of discipline and structure, and identify the necessary tools to deliver timely and reliable C4ISR&IT systems.
- **Optimizing Outcomes:** We believe in leveraging C4ISR&IT to accomplish the Coast Guard's missions and deliver superior results. We recognize the extraordinary value of innovation when employees apply an entrepreneurial spirit by using technology as a performance enabler. With this in mind, we established the enterprise architecture (EA), systems development life cycle (SDLC), and investment management processes with maximum flexibility to ensure that technology improves Coast Guard mission and program performance.
- **Partnering to Accomplish the Coast Guard Missions:** We believe that no C4ISR&IT activity can operate in isolation of Coast Guard operational missions and programs. Our success and ability to add value depends upon the ability of C4ISR&IT to embrace, understand, and support enterprise missions and programs. As such, we must collaborate with our stakeholders to ensure that we meet requirements while following the disciplines established to govern C4ISR&IT.



# C4ISR&IT GOALS AND OBJECTIVES

## OVERVIEW

The following strategy consists of the goals and objectives that C4ISR&IT plans to accomplish over the next five years. By achieving these goals and objectives, we will realize the Commandant's strategic vision of the future. The goals are purposely broad with the objectives and initiatives focused primarily on a five-year timeframe. Building on the objectives, the C4ISR&IT Performance Plan identifies specific initiatives that will enable us to achieve the broader goals. Initiatives will be refined as we progress within objectives. As shown below, the goals align to five strategic goals: Cyberspace Operations, Efficient Information Management, Technology and Innovation, Governance and Organizational Excellence.



## Goal 1 | CYBERSPACE OPERATIONS

Enhance mission effectiveness by preventing C4ISR&IT security incidents, such as Cyber attacks and intrusions and enhancing C4ISR&IT security mitigation and recovery.

### Objectives

- 1.1 Prevention: Enhance C4ISR&IT cyber security by ensuring that proper safeguards and processes are in place to defend Coast Guard cyberspace and to ensure confidentiality, integrity, availability and privacy of information in alignment with JIE, DoD and DHS policy.
- 1.2 Mitigation: Improve the Coast Guard's ability to detect and respond to C4ISR&IT incidents in a timely manner with minimal disruption to systems and the Coast Guard's ability to carry out its missions.
- 1.3 Recovery: Deploy and direct appropriate C4ISR&IT resources to rapidly restore Coast Guard systems and data.





## Goal 2 | EFFICIENT INFORMATION MANAGEMENT

Improve and encourage information sharing, quality and compliance with internal and external partners to make better decisions, improve mission execution and increase performance.

### Objectives

- 2.1 **Sharing:** Enable information sharing by ensuring that information is visible, understandable, accessible, and interoperable throughout the Coast Guard and with external partners in alignment with JIE, DoD and DHS policy.
- 2.2 **Quality:** Promote information quality by establishing processes and procedures to ensure the Coast Guard's information is valid, consistent, and comprehensive.
- 2.3 **Compliance:** Achieve the intent of Federal and departmental information management legislation and policies, including compliance with privacy, Freedom of Information Act (FOIA), and records management guidance and establish clear policies and rules for discovery.



## Goal 3

### TECHNOLOGY AND INNOVATION

Deliver mission-focused, interoperable and innovative C4ISR&IT solutions to safeguard our oceans and waterways, enforce maritime laws and serve our Nation.

#### Objectives

- 3.1 Mission Focused: Satisfy C4ISR& IT requirements by delivering common mission-focused solutions that improve mission execution and business processes, while leveraging enterprise solutions, and adhering to the Coast Guard Enterprise Architecture (CGEA).
- 3.2 Enterprise-wide: Define, implement, and enforce standards for supportable and enterprise-wide C4ISR&IT systems, applications, products, and standards to reduce cost of operations and enable interoperability, seamless communications, and consolidation, including modernization, recapitalization and disposal of end-of-life systems.
- 3.3 Interoperable: Identify and replace stove-piped networks, systems, and applications with C4ISR&IT solutions that are interoperable within the Coast Guard and with our partners to optimize C4ISR&IT infrastructure that leverages enterprise capabilities and services.



## Goal 4

### GOVERNANCE

Govern the C4ISR&IT enterprise through an effective governance organization by executing technical authority and following effective processes for enterprise architecture, capital planning and investment control, systems development, standards and budget planning and execution.

#### Objectives

- 4.1 Enterprise Architecture: Implement an accurate, current, and complete CGEA as the single source of C4ISR&IT business and technology information throughout the Coast Guard.
- 4.2 Capital Planning and Investment Control: Establish effective leadership, policies and processes to govern the development and deployment of C4ISR&IT throughout the Coast Guard and ensure effective oversight and financial management, and compliance with laws, regulations, and policies and standards.
- 4.3 Systems Management: Enable efficient and effective delivery of capability to users through compliance with DHS's Systems Engineering Life Cycle (SELC) process. The USCG compliance to the DHS SELC process is managed through the USCG Major Systems Acquisition Manual (MSAM), Non-Major Acquisitions Process (NMAP) and System Development Lifecycle (SDLC) processes.
- 4.4 Planning, Programming, Budgeting and Execution (PPBE) Establish effective policies and processes to govern the planning efforts for the C4ISR&IT Budget and ensure proper execution of funds.





## Goal 5

### ORGANIZATIONAL EXCELLENCE

Achieve C4ISR&IT organizational excellence by continually developing our workforce, collaboration with internal and external partners, improving business processes and providing training.

#### Objectives

- 5.1 Workforce Recruitment: Attract high-caliber IT professionals by enhancing recruitment, screening, and hiring practices.
- 5.2 Workforce Investment: Retain and develop high-caliber IT professionals through succession planning, defining IT and program management career tracks, implementing staff development programs, and establishing a mentorship program.
- 5.3 Workforce Engagement: Establish cross-functional collaboration, increase employee engagement, and communicate a shared vision for the USCG IT community to increase organizational performance and improve employee well-being.



## THE WAY AHEAD

This strategic plan establishes the goals and objectives for C4ISR&IT, and demonstrates how they align with the overall Coast Guard and DHS strategic plans. Supporting this strategy, the FY15 C4ISR&IT Performance Plan identifies specific initiatives and critical success factors needed to progress toward achieving these goals and objectives.

In essence, the C4ISR&IT Performance Plan is the tactical plan for C4ISR&IT. It describes the initiatives that we are executing in support of C4ISR&IT goals. All of the work we do as C4ISR&IT should support one or more of our strategic goals and objectives. As such, all of our major deliverables should fall within the scope of at least one of the initiatives described in the C4ISR&IT Performance Plan. This alignment with the C4ISR&IT strategic goals ensures that we are using our limited resources to satisfy our strategic goals.

We update both the C4ISR&IT Strategic Plan and the C4ISR&IT Performance Plan on a yearly basis. The strategic plan contains high-level goals and objectives while the performance plan contains initiatives that we will complete to achieve our goals and objectives. More detail is provided for the current fiscal year than for upcoming fiscal years. This ensures that the plan contains sufficient detail to accurately track progress throughout the year.

Together the C4ISR&IT Strategic Plan and the C4ISR&IT Performance Plan will provide our C4ISR&IT community with clear direction on our goals and objectives, and a snapshot of our progress toward achieving these goals. Communicating this information to all of C4ISR&IT will help us join together to provide the best possible service to our customers and better align our resources to support the Coast Guard's mission.



# APPENDIX A: FY15-19 C4ISR&IT PERFORMANCE PLAN

Full document available for download on CG Portal:

<https://cglink.uscg.mil/7b8326d4>

## Table of Contents

### GOAL 1: CYBERSPACE OPERATIONS

- 1.1 Strategic Objective: Prevention
  - 1.1.1 Strengthening Information Security throughout the Coast Guard
  - 1.1.2 OSC Conversion to DoD Server Hardening Guidelines
  - 1.1.3 Develop prioritized list of IT Critical Infrastructure and Key Resources (CIKR)
  - 1.1.4 Build Information Assurance Program
- 1.2 Strategic Objective: Mitigation
  - 1.2.1 Computer Network Defense (CND) Capabilities
- 1.3 Strategic Objective: Recovery
  - 1.3.1 Mobile Command Center (MCC) Development
  - 1.3.2 Contingency SATCOM

### GOAL 2: EFFICIENT INFORMATION MANAGEMENT

- 2.1 Strategic Objective: Sharing
  - 2.1.1 Organizational Messaging Deployment
  - 2.1.2 Nationwide Automated Identification System (NAIS)
  - 2.1.3 CG Auxiliary Secure and Universal System Access and Secure Information Exchange
- 2.2 Strategic Objective: Quality
  - 2.2.1 Data Stewardship
- 2.3 Strategic Objective: Compliance
  - 2.3.1 Data and System Controls Ownership
  - 2.3.2 Enterprise Data Management Program (EDMP)
  - 2.3.3 Personally Identifiable Information (PII) Training
  - 2.3.4 Privacy Compliance/Privacy Threshold Analyses (PTAs)
  - 2.3.5 Freedom of Information Act (FOIA) Compliance
  - 2.3.6 Privacy Act Compliance
  - 2.3.7 Modernization of International Treaty and National Regulations
  - 2.3.8 Legislative Processes
  - 2.3.9 Audit Management

### GOAL 3: TECHNOLOGY AND INNOVATION

- 3.1 Strategic Objective: Mission Focused
  - 3.1.1 Modernizing the COMMSYS
  - 3.1.2 Merchant Mariner Licensing and Documentation System (MMLD) Modernization





- 3.1.3 Large Cutter Connectivity
- 3.1.4 Small Cutter Connectivity
- 3.1.5 Rescue 21 Life Cycle Management Transition
- 3.1.6 SeaWatch-Sentinel Development
- 3.1.7 Differential Global Positioning System (DGPS) Transmitter Replacement
- 3.1.8 Vessel Traffic Service (VTS)
- 3.1.9 Shipboard Announcing Systems
- 3.1.10 Interagency Operation Center (IOC)/(WatchKeeper) Delivery
- 3.1.11 Strategic Command Center – Global Command & Control System (GCCS)
- 3.2 Strategic Objective: Enterprise-Wide
  - 3.2.1 Logistics Systems Modernization
  - 3.2.2 Naval Engineering – Technical Information Management System (NE-TIMS-R4i)
  - 3.2.3 FLS/NESSS/CMPlus
  - 3.2.4 SAM
  - 3.2.5 CG-TIMS
  - 3.2.6 Financial Systems Modernization
  - 3.2.7 Military Human Resources (HR)/Payroll Modernization
  - 3.2.8 Information Systems Infrastructure Engineering
  - 3.2.9 Telephony
  - 3.2.10 Telephony Systems Policy
  - 3.2.11 Telecommunications Policy
  - 3.2.12 Strengthen Spectrum Program to Ensure Mission Success
  - 3.2.13 Replace CGOne Routers
  - 3.2.14 Replace CGOne Switches
  - 3.2.15 Geospatial Management Office (GMO)
  - 3.2.16 Portal Consolidation
  - 3.2.17 Enterprise Project/Portfolio Management ePM
  - 3.2.18 Upgrade/ Disposal of outdated or no longer supported Microsoft Operating systems
  - 3.2.19 MISLE Modernization
- 3.3 Strategic Objective: Interoperable
  - 3.3.1 Coast Guard Electronic Chart Display and Information System (CG ECDIS) Development
  - 3.3.2 Ultra High Frequency (UHF) Military Satellite Communications (MILSATCOM)
  - 3.3.3 Very High Frequency (VHF)/Ultra High Frequency (UHF) Land & Maritime Mobile Radio Infrastructure
  - 3.3.4 Evaluate Use of D11/D13 Microwave System
  - 3.3.5 Data Center Consolidation
  - 3.3.6 Gateway Consolidation and Internet Access
  - 3.3.7 SIPRNET Modernization



- 3.3.8 Transition to Efficient Sustainment of Deepwater Command, Control, Communications, Combat, Computing, Intelligence, Surveillance, and Reconnaissance (C5ISR) Systems
- 3.3.9 High Frequency
- 3.3.10 Navy Type Navy Owned (NTNO) Program

#### GOAL 4: GOVERNANCE

- 4.1 Strategic Objective: Enterprise Architecture
  - 4.1.1 Coast Guard Enterprise and Segment Architecture
  - 4.1.2 Coast Guard Enterprise Architecture Board (EAB) and Related EA Reviews
  - 4.1.3 Enterprise Architecture (EA) Tools
- 4.2 Strategic Objective: Capital Planning and Investment Control
  - 4.2.1 OMB CPIC Requirements
  - 4.2.2 C4ISR&IT Resource Council
  - 4.2.3 Communication of the CG C4ISR&IT Strategy and Related Strategic Activities
- 4.3 Strategic Objective: Systems Management
  - 4.3.1 Manage the Systems Development Life Cycle (SDLC)
  - 4.3.2 Information Technology Acquisition Review (ITAR) Process
  - 4.3.3 Section 508 Program Management
- 4.4 Strategic Objective: Planning, Programming, Budgeting and Execution (PPBE)
  - 4.4.1 C4ISR&IT Budget Formulation and Execution
  - 4.4.2 C4ISR&IT Budget Execution

#### GOAL 5: ORGANIZATIONAL EXCELLENCE

- 5.1 Strategic Objective: Workforce Recruitment
- 5.2 Strategic Objective: Workforce Investment
  - 5.2.1 IT/Program Manager Certification Policy
- 5.3 Strategic Objective: Workforce Engagement







