



JOINT REQUIREMENTS  
OVERSIGHT COUNCIL

THE JOINT STAFF  
WASHINGTON, D.C. 20318-8000

JROCM 173-07  
16 July 2007

MEMORANDUM FOR DISTRIBUTION

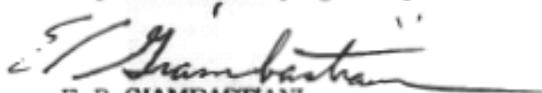
Subject: Net-Enabled Command Capability Increment One Capability  
Development Document

1. The Joint Requirements Oversight Council (JROC) approves the Net-Enabled Command Capability (NECC) Increment **One Capability** Development Document and Extensions, and validates the enclosed key performance parameters and key system attributes. The JROC will **maintain approval authority** for all key performance parameter changes, **delegates capability development document approval authority oversight for changes to key system attributes** to the Joint Capabilities Board, and **delegates capability development document approval authority for all other non-key performance parameter/non-key system attribute changes** to USJFCOM via the **Joint Combat Capability Developer** organization as outlined in the capability development document. Capability developers will use the NECC Capability Development Document and Extensions as the initial statement of validated capability needs for all phases of development. This program is assigned the Joint Potential Designator of "JROC Interest."

2. USJFCOM, working in concert with the Services and appropriate agencies, will determine program funding requirements for POM 2010 and beyond.

3. Should the Defense Information Systems Agency encounter costs exceeding ten percent of the approved acquisition program baseline or 25 percent of the original program baseline (Program Acquisition Unit Cost/Acquisition Procurement Unit Cost), they shall return to the JROC prior to reprogramming or budgeting additional funding into the program.

4. The JROC recognizes the importance of the NECC program and requests USJFCOM return to the JROC to provide annual program updates.

  
E. P. GIAMBASTIANI  
Admiral, US Navy  
Vice Chairman  
of the Joint Chiefs of Staff

Enclosure

**UNCLASSIFIED // FOR OFFICIAL USE ONLY**

(INTENTIONALLY BLANK)

**UNCLASSIFIED // FOR OFFICIAL USE ONLY**

**UNCLASSIFIED // FOR OFFICIAL USE ONLY**



**Net-Enabled Command Capability (NECC)  
Capability Development Document (CDD)  
Linked Extension L - United States Navy Annex to  
NECC CDD**

**Increment: I**

7 June 2007

This document has been approved by J8 for release to  
Australia, Canada, and Great Britain

**UNCLASSIFIED // FOR OFFICIAL USE ONLY**



# UNCLASSIFIED // FOR OFFICIAL USE ONLY

## Table Of Contents

UNITED STATES NAVY ANNEX..... USN-1

## Foreign Releaseability

This document is authorized for release (either hardcopy or electronically) to Australia, Canada, and Great Britain governments and their respective contractors and representatives working as mutual defense cooperative capability partners in support of NECC.

AUS, CAN, GBR government agencies and their defense support contractors may disseminate “For Official Use Only” information to their employees and subcontractors who have a need for the information. Removal of the “For Official Use Only” marking can only be accomplished by the USJFCOM J88. All “For Official Use Only” information shall be stored in locked receptacles such as file cabinets, desks, or bookcases. When such internal security control is not exercised, locked buildings or rooms will provide adequate after-hours protection. During working hours, the information shall be placed in an out-of-sight location if the work area is accessible to persons who do not have a need for the information. Transmission of “For Official Use Only” information may only be accomplished on a government-to-government basis.

Further requests for this document should be submitted to:

**Joint Combat Capability Developer (J88)**  
**U.S. Joint Forces Command**  
**1562 Mitscher Avenue, Suite 200**  
**Norfolk, Virginia 23551-2488**

## Points of Contact

John Wellman, NECC JCCD Lead, J88 USJFCOM, (757) 836-0126, [john.wellman@jfc.com](mailto:john.wellman@jfc.com)

John Costello, NECC Washington Liaison Office Lead, J882DC USJFCOM, (703) 614-5016, [john.costello@jfc.com](mailto:john.costello@jfc.com)

John Nankervis, NECC Capability Development & DOTMLPF Lead, J882B USJFCOM, (757) 836-6310, [john.nankervis@jfc.com](mailto:john.nankervis@jfc.com)

**Extension L: United States Navy Annex to the NECC CDD**

**United States Navy (USN) Annex  
To the  
Net-Enabled Command Capability (NECC)  
Capability Development Document (CDD)**

## Executive Summary

The Net-Enabled Command Capability (NECC) will evolve to become the Department of Defense's (DOD) principle tool for command and control (C2), planning and coordination of forces involved in joint operations and missions. NECC will enable decision superiority through advanced collaborative information sharing achieved through vertical and horizontal interoperability.

NECC is currently comprised of capabilities binned into eight joint Mission Capability Packages (MCP's) and based upon the GIG Enterprise Services (GES) enabling shared access to Service/Agency/joint-provided data sources. Three of the eight MCP's are the focus for the first Increment of NECC: Situational Awareness, Force Projection and Force Readiness. The capabilities of the remaining MCP's, to include the Force Employment MCP's, will be targeted for future Increments. It is unknown at this time exactly which MCP's will be targeted for the second and third Increments.

This Naval Annex to the NECC Capabilities Development Document (CDD) describes the transition plan from the Global Command and Control System – Maritime (GCCS-M) to the NECC Increment I. Navy intends to replace its current GCCS-M system with NECC throughout the Fleet and at its shore and mobile facilities as NECC capabilities mature to support the Warfighter operating at those levels of command. The ability of NECC to support Disconnected Operations and units operating under Low-Bandwidth constraints will have a major impact on the timing and speed for which NECC can replace GCCS-M.

The overall capabilities required by Naval forces are adequately covered by the joint MCP's in the main body of the NECC CDD. Navy does not have a requirement for a unique capability not already covered in the main body of the CDD however, Navy expects to develop Tactical Decision Aids (TDA) and applications in support of Navy tactics, techniques, and procedures executed by Navy NECC users in the NECC mission space. These will be developed within the NECC environment and in close coordination with the NECC JPEO and as such will be available to any NECC user.

The minimum NECC mission space within the Navy for Increment I capabilities is further defined as capabilities required by the Maritime Component Commander which could be either ashore at a major facility or embarked as part of a Carrier Strike Group (CSG) or Expeditionary Strike Group (ESG).

**Table Of Contents**

**EXTENSION L: UNITED STATES NAVY ANNEX ..... 1**

**1 CAPABILITY DISCUSSION ..... 5**

1.1 MISSION NEEDS SUMMARY ..... 5

1.2 TRANSFORMATION TO NECC ..... 5

**2 ANALYSIS SUMMARY ..... 6**

**3 CONCEPT OF OPERATION SUMMARY ..... 6**

**4 THREAT SUMMARY ..... 7**

**5 PROGRAM SUMMARY ..... 7**

5.1 STRATEGY TO REACH FULL CAPABILITY ..... 7

5.2 STATUS OF PREVIOUS INCREMENTS ..... 7

**6 SYSTEM CAPABILITIES REQUIRED FOR CURRENT INCREMENT ..... 8**

6.1 KEY PERFORMANCE PARAMETERS (KPPs) ..... 9

**7 FAMILY OF SYSTEMS SYNCHRONIZATION ..... 9**

**8 NSS AND ITS SUPPORTABILITY ..... 9**

**9 INTELLIGENCE SUPPORTABILITY ..... 10**

**10 ELECTROMAGNETIC ENVIRONMENT EFFECTS (E3) AND SPECTRUM SUPPORTABILITY ..... 10**

**11 ASSETS REQUIRED TO ACHIEVE INITIAL OPERATIONAL CAPABILITY (IOC) 11**

11.1 AFLOAT ..... 11

11.2 ASHORE ..... 11

11.3 TAC MOBILE ..... 11

**12 SCHEDULE AND IOC/FOC DEFINITIONS ..... 11**

**13 OTHER DOTMLPF CONSIDERATIONS ..... 12**

13.1 FACILITIES PLANNING ..... 12

13.2 PROGRAM OF RECORD SITES ..... 12

13.3 NECC SUPPORT FACILITIES ..... 14

13.3.1 *In-Service Engineering Activity Warehouse Facility* ..... 14

13.3.2 *NECC Training Facilities* ..... 14

**14 OTHER SYSTEM ATTRIBUTES..... 15**

**15 PROGRAM AFFORDABILITY..... 15**

**List of Figures**

Figure 5-1. NECC/NCES Evolution.....USN-8

Figure 13-1 List of GCCS-M Program of Record Inventory.....USN-12

## 1 Capability Discussion

The subsections that follow describe the capability that the Net-Enabled Command Capability (NECC) program delivers and how it relates to applicable Maritime Component Commanders, Joint Operations Centers (JOCs), Joint Force Commanders (JFCs), and integrated architectures. Also discussed is the spiral transition from GCCS-M to NECC Increment 1.

### 1.1 *Mission Needs Summary*

NECC and the capabilities in the associated Force Employment Military Capability Packages MCPs (Land OPS, Air and Space OPS, Maritime and Littoral OPS) are required by Maritime Component Commanders, Carrier Strike Group (CSG) and Expeditionary Strike Group (ESG), Joint Forces Maritime Component Commander (JFMCC), associated Warfare Commanders, and individual Unit Commanders to execute assigned joint missions.

### 1.2 *Transformation to NECC*

The Global Command and Control System (GCCS) Family of Systems (FoS) is evolving from its current state of Joint and Service variants to a single Joint C2 architecture. It is a capabilities-based implementation comprised of joint MCPs and Service applications based on Global Information Grid (GIG)/Net-Centric Enterprise Services (NCES) infrastructure, enabling shared access to Service, Agency, and Joint-provided data sources. NECC will be a suite of C2 Planning and other Command-related capabilities that provides the command and control of Naval forces and ensures Naval forces are vertically and horizontally interoperable with the NMCS, the JFC, and other Services and Component Commanders.

NECC is the solution by which the Global Command and Control System (GCCS) Family of Systems (FoS) evolves from its present state, to include service variants, to a consumer of C2 enterprise provided via the GiG. Further, NECC aligns Maritime and Littoral warfare with the Joint Military Capability Packages.

The Net-Centric Enterprise Services (NCES) Technology Development Strategy, dated 22 March 2004 (v2.3), states that “NCES capabilities will be implemented via evolutionary acquisition and incremental development to speed the delivery of advanced enterprise level services capabilities to edge users while adjusting to technology evolution in a timely manner in synchronization with industry.” This evolutionary acquisition focuses on providing users time-phased increments of capabilities that are less than the full requirement as a trade-off for earlier delivery, affordability, and risk reduction.

The NECC JPEO has stated the intention to deliver NECC capabilities in incremental spirals to the Warfighter vice using the GCCS FoS methodology of major Block releases. As such, it can not be determined at what exact point NECC will be able to replace the capabilities provided by GCCS-M that are required by Naval Warfighters operating at different levels of command and performing different missions. Commander Fleet Forces Command (CFFC), in conjunction with OPNAV, will conduct reviews of the capabilities provided in the NECC spiral releases to determine when NECC will be capable of replacing GCCS-M and at what levels of command: Afloat, Ashore and Tactical Mobile sites. Until NECC is able to support Navy Warfighters at all levels of command, GCCS-M must continue to support these Warfighters. Navy does not

currently anticipate the requirement to develop and field a new major Block release for GCCS-M beyond the current release of GCCS-M 4.0. Navy does expect that fluid environment of Joint Operations and Missions and the changing nature of the Global War on Terrorism will require the incremental developing and fielding of addition capabilities by GCCS-M deemed necessary to support emergent requirements during the interim period until NECC can be fielded to all applicable Navy commands. The development and fielding of any GCCS-M incremental releases will be accomplished in close coordination with the NECC JPEO to ensure that any required incremental releases are complimentary to the evolving NECC architecture.

This incremental development and fielding approach will enable GCCS-M to effectively manage program risk while ensuring that the Warfighter receives needed capabilities on a timely basis until NECC is fielded. This will also enable the Warfighter to gradually acclimate to the net-centric paradigm and allow training, tactics and procedures to evolve in an orderly fashion.

## 2 Analysis Summary

The JC2 (NECC) Analysis of Alternatives (AoA) is used for the development of the NECC CDD.

## 3 Concept of Operation Summary

The NECC operating environment includes Maritime platforms and sites that require C2 and related capabilities, including ships, submarines, ashore command centers, maritime patrol Tactical Support Centers (TSC), and Mobile Command Centers (MCC). The NECC increments defined by this CDD cover transitioning applications from the legacy Common Operating Environment (COE) architecture to the enterprise services paradigm of NCES and NECC, as well as fielding NECC Increment I, and eventually in Increments II, and III at Maritime platforms and sites. The site inventory as reflected in Figure 13-1 is intended to provide an idea as to the scope and level of commands that Navy expects to eventually field NECC. The site list is expect to evolve over time as Fleet units, Shore command and Tactical Mobile Commands are commissioned and decommissioned, undergo mission changes, etc. CFFC, in conjunction with OPNAV, will evaluate the operational needs of Navy commands and refine the Navy NECC site list as required.

NECC will be a suite of C2 capabilities enabling FORCEnet that provides the command and control of Naval forces and ensures Naval forces are interoperable with Joint, Coalition and Allied Forces. Implementing NECC in the FORCEnet environment will link Warfighters ashore, at sea, and in the air into a series of highly integrated distributed services networks that are capable of providing critical operational and tactical information to specified users on a rapid and continuous basis. The “publish and subscribe” construct for moving data within the network will facilitate greatly improved, shared battlespace awareness and rapid dissemination of enemy information from sensor/surveillance systems to commanders enabling control of ready forces with the right weapons for attacking key targets. NECC enhances naval capabilities to quickly

make and execute decisions in the battlespace, to synchronize the activities of widely distributed forces to mass effects on the enemy, and to reduce threats to Sailors and Marines by providing broader situational awareness. Transformational tactical decision aids and applications will be developed to ease the burden of dealing with unprecedented volumes of data and information. With improved ability to collect and disseminate information, commanders require the capability to assess information that is generated at lower levels without being overwhelmed, impeding decisions or slowing operational cycles. NECC and accompanying maritime tactical decision aids supports the delivery of the right information to the right users in the right format at the right time.

## 4 Threat Summary

(No significant/unique Naval additions.)

## 5 Program Summary

Summaries of the elements comprising the NECC program are provided in the NECC CDD and in the following subsections.

### **5.1 Strategy to Reach Full Capability**

NECC employs transformational evolutionary acquisition and a collaborative evolution of C2 capabilities to speed delivering advanced C2 capabilities to its users. The evolutionary acquisition process is designed to develop and field demonstrated technologies to the Warfighter while providing follow-on capability improvements. Evolutionary acquisition focuses on providing NECC users time-phased increments of capabilities that are less than the full requirement as a trade-off for earlier delivery, affordability, and risk reduction. NECC is the product of an iterative process of innovation and experimentation. Incremental development is used to rapidly prototype NECC. NECC engineers and integrators obtain early feedback on operational suitability and effectiveness by experimenting and testing. Similar to the scope of joint operating concepts, NECC capabilities evolve over time through ongoing concept development and experimentation. The content of each fielded increment is determined by the maturation of key technologies. Each increment meets, as a minimum, the threshold requirements defined for each respective Increment of NECC capabilities. NECC will replace GCCS-M at Navy commands when the determination is made that the capabilities required by that level of command can be adequately supported by NECC.

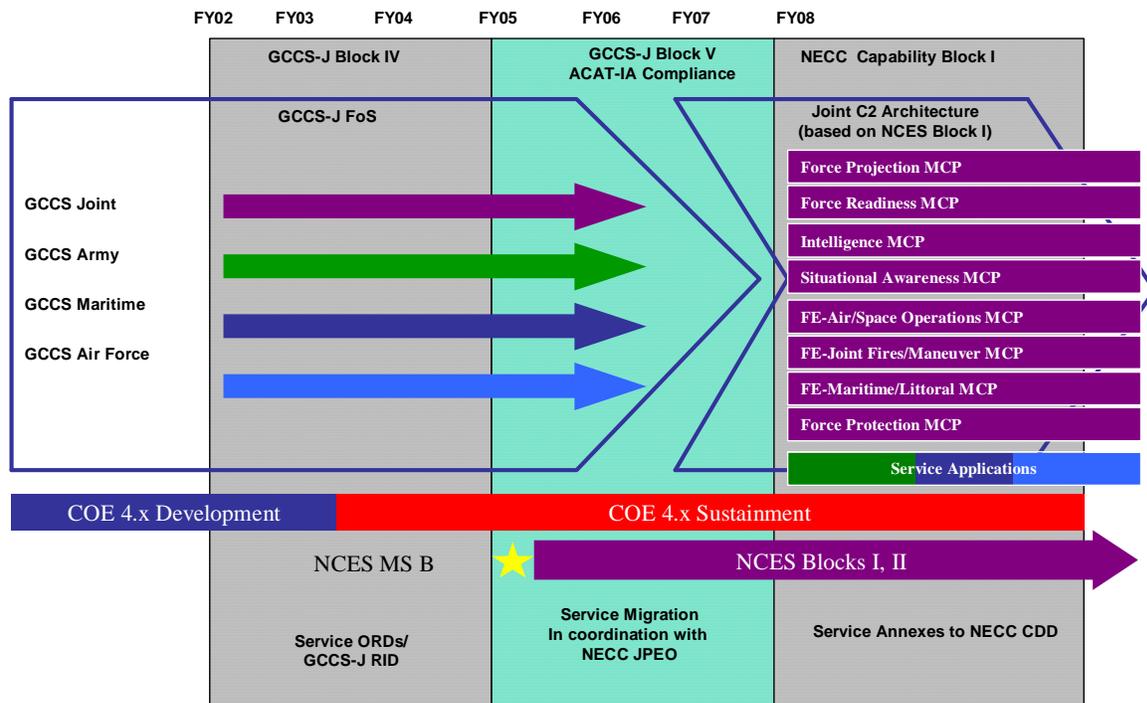
### **5.2 Status of Previous Increments**

Evolutionary acquisition and incremental development are not new to Maritime Command and Control. They have been the strategy used by the Navy to evolve Navy Tactical Command System-Afloat (NTCS-A), Joint Maritime Combat Information System (JMCIS), and the Global Command and Control System-Maritime since 1989.

Beginning with NECC Increment I development and fielding, the GCCS FoS migrates to a single NECC architecture comprised of Joint Mission Capability Packages and Service applications

---

built on common Net-Centric Enterprise Services (NCES) and C2 Community of Interest capabilities. GCCS-J, its Service variants, and COE 4.X systems will remain operational during the migration to NECC and NCES. GCCS-J and Service variants will continue to comply with COE interoperability standards until they are fully migrated to NECC and NCES. NECC Increments I-III will comply with emerging NCES interoperability standards. Figure 5-1 depicts this strategy.



**Figure 5-1. NECC/NCES Evolution**

## 6 System Capabilities Required For Current Increment

NECC will evolve to provide support to numerous Mission Capability Packages in support of the joint Warfighter. It is recognized that many of the planned capabilities to be provided by NECC are applicable to all Component Commander/Service users. It is also recognized that concept of operations (CONOP) and tactics, techniques, and procedures (TTP) utilized by the Warfighter are specific to the nature of a respective operational environment (e.g. maritime and littoral operations, land operations). Therefore, the capabilities documented in Extension D, section 7 of the NECC CDD accurately reflect Maritime and Littoral C2 requirements at this time. This

section will be updated and revised for NECC Increment II as required. Navy will develop tactical decision aids and applications as required for NECC to support Navy CONOPs and TTPs within the NECC capabilities construct. These applications will be developed for the NECC/NCES environment and available to any Component Commander, Service or other NECC user as desired. For NECC to be fielded to Fleet forces, NECC will need to be able to support Disconnected Operations and units operating under low-bandwidth constraints. Additionally, NECC will need to be scalable to support installation on Fleet units ranging from submarines and minesweepers (minimal) to the full command capabilities employed by Aircraft Carriers and Command ships (maximum) and units in between depending on their mission.

## **6.1 Key Performance Parameters (KPPs)**

Maritime C2 requirements addressed by this Navy Annex to the NECC CDD, do not require unique Key Performance Parameters (KPPs). The KPPs, as required by the NECC, are addressed in the NECC CDD.

## **7 Family of Systems Synchronization**

The GCCS Family of Systems synchronization and their alignment with NCES and NECC are addressed in the NECC CDD.

## **8 NSS and ITS Supportability**

NECC addresses emerging Joint and Naval C<sup>2</sup>I/C<sup>4</sup>I requirements and interfaces. As envisioned in Joint Vision 2020, NECC is mission critical in building towards an integrated, network-centric warfare concept by providing a seamless, user-transparent interface between organic and other non-organic C<sup>2</sup>I/C<sup>4</sup>I systems and sensors. NECC intends to incorporate state-of-the-art technology in the form of distributed databases and computing environments, virtual reality displays, interactive video, Cross Domain Solution (CDS), artificial intelligence (AI), expert systems, and other technologies relevant to the successful wartime execution of naval C2.

NECC provides a complete C2 solution to the Fleet, with interfaces to a variety of combat communications and computer systems. This program creates an open, scalable, network-centric architecture by integrating components such as databases, servers, client workstations, local area networks, and computer software. The NECC product is expected to provide a near real-time, fixed situational awareness picture that supports C2 requirements for decision makers through every level of conflict from peacetime through war. As such, it will eventually replace GCCS-M on the across the spectrum of surface and subsurface combatants operating in the U.S. Navy (aircraft carriers, command ships, amphibious ships, cruisers, destroyers, littoral combat ships, fast attack, ballistic and cruise missile submarines as well as minesweepers and supply ships, etc). In addition, NECC is expected to be installed at Fleet Commanders' (FLTCDR) Headquarters, Maritime Command Centers and other Navy commands currently requiring the capabilities provided by GCCS-M. NECC is also used by Tactical Support Centers (TSCs) to

support Anti-Submarine Warfare (ASW) and Anti-Surface Warfare (ASUW) pre-mission planning and post-mission analysis. NECC is expected to be available in several mobile configurations. Therefore, NECC must support operations on the four Navy Enterprise networks: SubLAN, ISNS, NMCI and OneNET.

Within NECC, there is interconnection equipment and software to enable information flow to the Global Information Grid (GIG). With the NECC inter-connection to the GIG, sharing functionality across geographically dispersed areas is facilitated.

## 9 Intelligence Supportability

The threshold intelligence capabilities provided by NECC, as described in the main body of the CDD, will enable the Fleet to coordinate intelligence and operations functions. Through Network Centric Enterprise Services (NCES) interoperability with the DCGS Integrated Backbone (DIB), we can maximize Theater and National ISR sensors, leverage the Intelligence Community's federated intelligence production, and ensure the horizontal and vertical sharing of intelligence data/products. Netting the capabilities of NECC and existing intelligence programs of record in a service oriented architecture (SOA) environment will enable the Navy to realize the power of a User Defined Operational Picture.

NECC shall provide C4I services in various environments for afloat and ashore Fleet users. Afloat platforms shall be categorized as force-level and unit-level configurations normally arrayed in a CSG or ESG; this configuration adds a level of complexity and variable topology during deployment and operations.

Maritime employment of NECC depends on various USN-wide communications systems and the Global Information Grid (GIG) that include the Secret Internet Protocol Router Network (SIPRNet) and Sensitive Compartmented Information (SCI) wide-area networks (WAN) connectivity. The Joint Maritime Communications System (JMCOMS) shall provide the WAN connectivity for the afloat and tactical NECC implementations. Operating "system-high" at the Secret and SCI security levels, these networks utilize the same protocols as the Internet.

Platforms hosting NECC shall vary in how they connect to these networks. Maritime Headquarters (MHQ) / Maritime Operations Centers (MOC), unless mobile, connect primarily through land-based high-bandwidth connections and battle groups through more constrained bandwidth satellite communication (SATCOM) and other circuits provided by JMCOMS via the Automated Digital Network Service (ADNS). Afloat NECC users rely on ADNS for seamless connectivity for voice, imagery and data.

## 10 Electromagnetic Environment Effects (E3) and Spectrum Supportability

NECC will be based on Commercial-Off-The-Shelf (COTS) equipment that complies with Part 15 of the Federal Communication Commission Rules, subject to the following two conditions:

The equipment may not cause harmful interference.

The equipment may not be susceptible to harmful interference.

Mission Essential Shipboard equipment is installed in rugged environmental cabinets to minimize susceptibility to harmful interference. Shielded copper cables and fiber-optic cabling is also implemented to minimize susceptibility to harmful interference and to minimize emissions that might cause interference to other local cabling. NECC does not impose new requirements for electromagnetic spectrum. NECC interfaces with standard Navy and DOD communications equipment, networks, and communication circuits for data transmission and receipt to/from remote units. NECC interfaces with local combat systems and surveillance equipment in accordance with approved low-level signal interface standards.

## **11 Assets Required to Achieve Initial Operational Capability (IOC)**

IOC for Naval assets depends on the type of Maritime Warfare Commander being supported and the platform or site. A variety of conditions are required to achieve IOC. Each is described in the following subsections.

### **11.1 Afloat**

IOC is achieved when the full capability planned for NECC Increment I is installed on a major fleet command ship such as an Aircraft Carrier. This must include support for Disconnected Operations.

### **11.2 Ashore**

IOC is achieved when the full capability planned for NECC Increment I is installed at a Maritime Component Commander headquarters.

### **11.3 TAC Mobile**

IOC is achieved when the full capability planned for NECC Increment I is installed at major Tactical Mobile site such as one of the eleven Tactical Support Centers (TSCs) and twelve Mobile Operational Command Control Centers (MOCCs) that are operational worldwide. This could also occur at one of the four Joint Mobile Ashore Support Terminal (JMAST) Units that are operational to support deployed Joint Force Maritime Commander (JFMCC) Forces.

## **12 Schedule and IOC/FOC Definitions**

GCCS-M schedules have been dependent on the Defense Information Infrastructure Common Operating Environment (DII COE) and GCCS schedules for both major and minor upgrades. GCCS-M development, fielding, and maintenance is in lock step with the DII COE and GCCS. As DISA transitions from DII COE to the Network Centric Enterprise Services (NCES) environment, GCCS-M evolves to the NECC architecture. GCCS-M tactical decision aids and applications will be integrated into the NCES/NECC environment.

Similar to GCCS-M, NECC uses an evolutionary acquisition approach, which covers current and long-term requirements for supporting the operational fleet, therefore there is no Full Operational Capability (FOC).

## 13 Other DOTMLPF Considerations

NECC facilities include operational, support, and training facilities. The sections below are based on the assumption that NECC will follow the support model used by GCCS-M. However, NECC development has not reached the point where the current GCCS-M model can be confirmed as relevant and applicable to the implementation and support of NECC throughout the Navy. Therefore, until additional information is made available the following sections reflect the continuation of the GCCS-M model to NECC. Navy will conduct a review of the various facilities discussed in the model once better definition is made available.

### 13.1 Facilities Planning

NECC Facilities Planning is the responsibility of PEO C4I and Space, in coordination with the In-Service Engineering Activity (ISEA). The NECC Logistics Element Manager is responsible for areas associated with operational, support, and training facilities. As requirements emerge for operational and training facilities, the NECC Facilities or Program Manager initiates a task to conduct a site survey.

The scope, cost, and schedule of each facility installation is determined throughout the course of the initial site survey and during subsequent evaluation of the facility requirements. Projected facility cost requirements are provided in the NECC Logistics Requirements Funding Summary. Support facility requirements are subject to the approval of PEO C4I and Space.

The Equipment Facility Requirements (EFR) plans are developed to document facility requirements supporting NECC Technical Test & Evaluation (TTE), training devices programmed installation, and transfers equipment from the Training Support Agent (TSA) to the training community.

### 13.2 Program of Record Sites

NECC develops, acquires, implements, and supports capabilities tailored to the needs of each Program of Record (PoR) site. The type of functional user, except where hardware limitations or operational requirements dictate variations, determines NECC configuration. The required capabilities are compiled from numerous sources, including fleet user input, and are analyzed and programmed through a systematic requirements definition process that supports incremental development. A rigorous and dynamic requirements definition process, using a hierarchical method of analysis, provides a context for the large number of requirements levied against NECC's integrated, multi-functional distributed command and control system. NECC operational facilities include operational sites afloat and ashore (including shore-based command center facilities).

The following tables provide a listing of the types of PoR sites currently supported by GCCS-M. These sites will transition to NECC as the capabilities required to meet their missions are made

# UNCLASSIFIED // FOR OFFICIAL USE ONLY (DRAFT)

available. This list is expected to change over time as Navy units and commands are commissioned and decommissioned and after evaluation of each command's operational requirements as determined by CFFC and OPNAV.

<b>Afloat PoR</b>		
<b>Platform Type</b>	<b>Inventory Objective</b>	<b>Ship Class Applicability</b>
Force Level	25	CV / CVN / LCC / LHA / LHD
Unit Level Combatants	110	CG / DDG / DD(X) / FFG / LCS
Amphibious	32	LPD / LSD
Submarines	72	SSN-688 / SSN-21 / SSN-774 / SSGN / SSBN
Mine Warfare	14	MCM
Coastal Defense	12	PC
Auxiliaries	14	AOE / ARS / AS / T-AE / T-AFS / T-AO / T-AGOS
<b>Shore PoR</b>		
<b>Platform Type</b>	<b>Inventory Objective</b>	
Combatant Commander	2	
Command Center	11	
Numbered Fleet Commander	5	
CTF Commander	22	
Intelligence Command	4	
TTE	14	
Engineering & Logistics	10	
<b>Tactical Mobile Platforms</b>		
<b>Platform Type</b>	<b>Inventory Objective</b>	
Tactical Support Center (TSC)	12	
Mobile Operational Command Control Centers (MOCC)	11	
Joint Mobile Ashore Support Terminal (JMAST)	4	

<b>TBMCS Capabilities Requirement</b>	
<b>Platform Type</b>	<b>Inventory Objective</b>
Shore	6
Afloat Force Level	23
Shore NOC	4
Shore Sub-NOC	6

**Figure 13-1 List of GCCS-M Program of Record Inventory**

### **13.3 NECC Support Facilities**

The NECC support facilities are located at SPAWARSYSCEN Charleston (Code 63) as the lead In-Service Engineering Activity Warehouse Facility for hardware and SPAWARSYSCEN San Diego as the lead System Support Activity (SSA). NECC support facilities are used as hardware/software laboratory facilities that support life cycle management functions, system certification, software reproduction/duplication, software familiarization and training, and software loading. New requirements for support facilities are subject to the approval of PMW-150. A repair facility is not required since the Original Equipment Manufacturer (OEM) or third-party vendor acting as the depot does the repair of COTS/Non-Developmental Items (NDI) equipment and components.

#### **13.3.1 In-Service Engineering Activity Warehouse Facility**

SPAWARSYSCEN Charleston Detachment St. Juliens Creek maintains a warehouse facility to provide inventory management and shipping/receiving services within its ISEA function. This facility maintains and provides installation and checkout of replacement parts, distributes spares for initial outfitting requirements, receives packages, and ships equipment and components as the liaison between NECC sites and support agencies. SPAWARSYSCEN Charleston, Detachment St. Juliens Creek receives defective parts from sites and processes the defective parts for warranty return to OEMs. The inventory held by SPAWARSYSCEN Charleston Detachment St. Juliens Creek is specified in PBL-O tasking as determined by the Naval Inventory Control Point (NAVICP).

#### **13.3.2 NECC Training Facilities**

Navy expects to conduct training for the optimum utilization of NECC by naval forces. However, any training to be conducted at a specific Training Facility will be determined by the capability delivered in each Increment and after evaluation by the Personnel Development Command and CFFC.

## 14 Other System Attributes

(No significant/unique Naval additions.)

## 15 Program Affordability

NECC is an evolutionary acquisition program with development and implementation progressing in programmatic Increments. Each Increment is a management tool for putting into practice engineering solutions that fulfill groups of operational requirements and long-term system objectives and for incorporating technological advances. Within each Increment, assigned capabilities are developed and tested while those of the previous Increments are fielded and supported.

The primary Research, Development, Test and Evaluation (RDT&E) development of NECC joint capabilities will be carried out under the direction and control of the NECC JPEO. In their Title 10 mandated role, the Services will retain responsibility for the fielding (e.g. Other Procurement, Navy (OPN)) and maintenance (e.g. Operations and Maintenance, Navy (OMN)) of Service supported commands. While the NECC JPEO will develop joint NECC capabilities, the Services will retain responsibility for integrating NECC into Service specific platforms. Navy will retain a NECC RDT&E capacity focused on integrated NECC into Navy platforms as applicable (integration with platform sensors, LANs, communication systems, etc) and for developing Tactical Decision Aides (TDA) etc., that will be required by Navy Warfighters. As previously discussed, any Navy TDA or application development will be accomplished in close coordination with the NECC JPEO to ensure that any application can be seamlessly used by any NECC user.

While an AOA has been developed for NECC, this AoA is undergoing review by the NECC JPEO. The architecture and equipment requirements to implement the capabilities being considered for NECC Increment I have not been defined to the point where adequate cost figures can be developed for any of the appropriations stated above. In lieu of adequate information to develop accurate funding assessments, Navy plans to leverage the current funding in the GCCS-M program until such time as additional information and metrics are made available to allow to more rigorous assessment of the Program Affordability.