

GPC-MA II

Essential Body of Work & Knowledge (EBW/EBK)
 GEOINT Professional Certification - Maritime Analysis: Proficiency Level II
 8 February 2017 (current version can be found at <http://gpc.nga.ic.gov>)



Core Competency 1 - Maritime Navigation Principles (31%)

Terminal and Enabling Certification Objectives (TCOs & ECOs)

TCO 1: Comprehend Maritime Safety of Navigation Basics

ECO 1.1: Discuss the fundamentals of shipboard navigation to include voyage planning, piloting, electronic navigation, and ship positioning methods.

ECO 1.2: Explain maritime navigation rules of the road and at-sea procedures.

ECO 1.3: Describe maritime navigational aids/features and the purpose and types of ships routing systems.

ECO 1.4: Outline the basic operational construct of the Global Maritime Distress and Safety System (GMDSS).

TCO 2: Apply Nautical Science Basics

ECO 2.1: Describe the basic elements of geodesy and horizontal and vertical datums used in Maritime GEOINT products and databases.

ECO 2.2: Convert positions and accurately plot information on the various grids, datums, chart projections, and coordinate systems used on Maritime GEOINT products and databases.

ECO 2.3: Describe the key facets of Water Levels, Tides and Tidal Currents.

Core Competency 2 - Maritime Governance & Industry (6%)
 Demonstrates a knowledge of national and international policy and mandates governing the production and distribution of Maritime GEOINT. Understands NGA exchange agreements with other hydrographic offices. Maintains a basic understanding of key relationships with external entities and their role as a part of a larger national and international hydrographic community.

Terminal and Enabling Certification Objectives (TCOs & ECOs)

TCO 3: Know the Maritime Statutory Requirements, International Agreements, and National Policy/Instructions that Govern the Mission

ECO 3.1: State the statutory mandates within US Code that dictate the production and use of Maritime GEOINT.

ECO 3.2: Cite the international conventions and resolutions that the United States is a signatory member state of that dictate the provision and carriage of Maritime GEOINT by vessels.

ECO 3.3: Name the national DoD Directive and NGA Instructions and Policy that assign maritime GEOINT production responsibilities to NGA and the Maritime Safety Office.

TCO 4: Comprehend the National Maritime Partners and their Missions

ECO 4.1: Summarize the role, responsibilities and organizational construct of the Office of Coast Survey (OCS) within the National Oceanographic and Atmospheric Administration (NOAA).

ECO 4.2: Summarize the role and responsibilities of the Naval Oceanographic Office (NAVO), the Fleet Survey Team (FST), and the Chief of Naval Meteorology and Oceanography Command (CNMOC).

ECO 4.3: Summarize the role, responsibilities and organizational construct of the United States Coast Guard (USCG).

ECO 4.4: Summarize the role, responsibilities and organizational construct of the Army Corps of Engineers (ACE).

TCO 5: Comprehend the International Maritime Partners and their Missions

ECO 5.1: Distinguish the role and responsibilities of the International Hydrographic Organization (IHO) and the International Maritime Organization (IMO).

ECO 5.2: Identify the role, responsibilities and member states of the Allied Maritime Sub-Group (AMSG).

ECO 5.3: Describe the purpose of Bi-Lateral Exchange Agreements (BECAs) between NGA and foreign hydrographic partners.

Core Competency 3 - Maritime Sources (5%)

Understands internal processes and management policies on maritime source acquisition, receipt, routing and management on a macro level. Identifies and discriminates source material from national and international partners for proper analysis and application to maritime products and databases. Understands basic imagery types and intended purpose for use in support of Maritime GEOINT. Leverages understanding of maritime sources to ensure that the most accurate source is used during production.



Terminal and Enabling Certification Objectives (TCOs & ECOs)

TCO 6: Apply proper processes for the Acquisition, Analysis, Annotation, Routing, Storage and Management of Source Information used for Maritime GEOINT

- ECO 6.1: Explain the different types of maritime source that are disseminated by other foreign hydrographic offices.
- ECO 6.2: Demonstrate methods to discover and acquire new maritime sources.
- ECO 6.3: Demonstrate the ability to validate maritime source.
- ECO 6.4: Exploit maritime source to include proper routing, analysis, annotation, and storage for various process flows within the maritime production environment.

TCO 7: Comprehend the Acquisition, Collection, Processing and Management of Bathymetric Surveys

- ECO 7.1: Outline the basics of Hydrography, Oceanography and Bathymetry.
- ECO 7.2: Recognize the types of collection sensors and the classification of survey data for incorporation into Maritime GEOINT products and databases.

Core Competency 4 - Maritime GEOINT Production (22%)

Demonstrates a thorough understanding of Maritime Safety of Navigation products and services. Incorporates knowledge of work processes, policies, standards and specifications for production and maintenance of Maritime GEOINT. Applies knowledge of hardware and software applications in daily work and understands the basic requirements process.

Terminal and Enabling Certification Objectives (TCOs & ECOs)

TCO 8: Apply Maritime GEOINT Production Processes

- ECO 8.1: Demonstrate the production process flow to include all key functions associated with the US Notice to Mariners.
- ECO 8.2: Demonstrate the production process flow to include all key functions associated with Nautical Publications.
- ECO 8.3: Describe the role of the Maritime Safety Watch Desk and promulgation of Maritime safety information.
- ECO 8.4: Describe the purpose, production process flow, and key facets of the various Standard Nautical and Bathymetric Chart products.
- ECO 8.5: Describe the purpose, production process flow, and key facets of the Chartlet product.
- ECO 8.6: Describe the purpose, production process flow, and key facets of the Publication Database Update (PDU).
- ECO 8.7: Describe the purpose, production process flow, and key facets of the Vector Product Format Database Update (VDU).
- ECO 8.8: Describe the purpose, production process flow, and key facets of the Digital Nautical Chart (DNC) and Tactical Ocean Data (TOD) products.

TCO 9: Comprehend the Maritime GEOINT Requirements Process

- ECO 9.1: Associate the role and responsibilities of the Foundation GEOINT NSG Operational Executive (NOX) Office.
- ECO 9.2: Correlate the National System for Geospatial Intelligence (NSG) Requirements Process to Maritime GEOINT products and services.

TCO 10: Describe Maritime GEOINT Hydrographic Product Specifications and Standards

- ECO 10.1: Recognize the major elements of national production standards and specifications to produce NGA Maritime GEOINT products.
- ECO 10.2: Recognize the major elements of international production standards and specifications to produce NGA Maritime GEOINT products.

Core Competency 5 - Maritime Quality (6%)

Demonstrates operational knowledge of Maritime Quality Control and Quality Assurance processes and policies. Versed in key attributes of the maritime ISO 9001 Quality Management System (QMS) to include process improvement, corrective actions, and auditing. Demonstrates knowledge of customer feedback mechanisms and how to initiate remedies to product deficiencies or ineffective procedures.

Terminal and Enabling Certification Objectives (TCOs & ECOs)

GPC-MA II

Essential Body of Work & Knowledge (EBW/EBK)
 GEOINT Professional Certification - Maritime Analysis: Proficiency Level II
 8 February 2017 (current version can be found at <http://gpc.nga.ic.gov>)



TCO 11: Apply the functions of the Maritime Quality Management System (QMS)
ECO 11.1: Perform functions within the Maritime Quality Management System (QMS) and demonstrate how they support quality assurance.
ECO 11.2: Report how process improvements are identified and implemented within the Maritime Quality Management System (QMS).
TCO 12: Apply Quality Control processes for Maritime GEOINT.
ECO 12.2: Outline the purpose, process flow, and key facets of the Pre-Press Proof (PPP) Review.
ECO 12.3: Demonstrate the purpose, process flow, and key facets of the Practical Library Review (PLR).
ECO 12.4: Outline the purpose, process flow, and key facets of the DNC Continuous Maintenance (CM) Review.
Core Competency 6 - Maritime Databases & Information Processing (21%)
Demonstrates a thorough understanding of Maritime Safety of Navigation databases. Incorporates knowledge of work processes, policies, standards and specifications for the maintenance of Maritime GEOINT. Applies knowledge of GUI screens and GIS software applications to manipulate, change, and update data content. Properly exploits non-imagery and imagery sources during information processing and database maintenance activities.
Terminal and Enabling Certification Objectives (TCOs & ECOs)
TCO 13: Comprehend the Maritime Databases
ECO 13.1: Summarize the purpose, production process flow, and key facets of the Mobile Offshore Drilling Unit (MODU) database.
ECO 13.2: Summarize the purpose, production process flow, and key facets of the Anti-Shipping Activity Message (ASAM) database.
ECO 13.3: Summarize the purpose, production process flow, and key facets of the Non-Submarine Contact List (NSC) database.
ECO 13.4: Summarize the purpose, production process flow, and key facets of the NGA List of Lights database.
ECO 13.5: Summarize the purpose, production process flow, and key facets of the Maritime Safety Watch Broadcast Warnings database.
ECO 13.7: Explain basic hydrographic features and associated symbology found on Maritime products.
TCO 14: Apply the Tools and Methods to produce, maintain, and accurately portray Maritime GEOINT
ECO 14.2: Operate the functionality of basic Geographic Information System (GIS) software tools used in the maintenance and generation of Maritime GEOINT products and databases.
Core Competency 7 - Maritime Customer Operations & Data/Product Access (9%)
Demonstrates an understanding of the means to interact, derive feedback and provide support to maritime products and services from the user. Thoroughly understands the dissemination methods and availability of Maritime GEOINT to the entire customer base. Applies knowledge of NGA, Joint Service, and Combatant Command structure to assist in providing comprehensive collaboration and support.
Terminal and Enabling Certification Objectives (TCOs & ECOs)
TCO 15: Apply the Maritime Customer Service Mechanisms
ECO 15.1: Demonstrates the knowledge, skills, and ability to respond to customer inquiries using the MCQFD.
ECO 15.2: Describe the intended purpose and key facets of the Fleet Liaison Program.
ECO 15.5: Describe how customers can submit recommended changes and corrections to maritime GEOINT products and databases.
TCO 16: Comprehend the Maritime Dissemination process and product/data availability
ECO 16.1: Summarize the content, data availability, frequency of update, and key query capabilities of the Maritime websites on all networks.
ECO 16.3: Explain how NGA Maritime GEOINT products are distributed through the Defense Logistics Agency (DLA).
ECO 16.4: List the content found on Quarterly Publication DVD.