Essential Body of Knowledge (EBK)

GEOINT Professional Certification
Aeronautical Analysis: Proficiency Level II
19 January 2023

AA-II Core Competency 1 - Safety of Navigation: Aeronautical Governance and Industry (25%) Understands policy and mandates governing production and distribution of Aeronautical Geospatial Intelligence (GEOINT). Applies knowledge of airspace and airfield structure to allow modifications to aeronautical databases and product sets. Understands aeronautical GEOINT output in relation to use by the Department of Defense (DoD) aviation community.
TCO 1: Comprehend the mandates governing aeronautical GEOINT production.
ECO 1.1: Discuss the mandates governing production and use of aeronautical GEOINT.
TCO 2: Apply knowledge of key components pertaining to structure of airspace, airfields, and instrument flight procedures.
ECO 2.1: Describe airspace components and structure.
ECO 2.2: Analyze runway and airfield components and structure.
ECO 2.3: Describe instrument flight procedure components and structure.
ECO 2.4: Interpret aeronautical navigation rules and procedures.
TCO 3: Comprehend internal data relationships and functionality.
ECO 3.1: Outline basic use and functionality of aeronautical GEOINT.
AA-II Core Competency 2 - Customer Requirements: Aeronautical Source (15%) Understands International Civil Aviation Organization (ICAO) and internal work and management policies on aeronautical source receipt and distribution on a macro level. Gathers relevant source necessary for production in assigned area(s). Validates source material from host nations and from the DoD aviation community. Disseminates source using work processes to ensure the most recent, updated, and accurate source is used during production.
TCO 4: Comprehend the tools and methods used to identify, acquire, and evaluate source and information related to aeronautical GEOINT.
ECO 4.1: Describe how to extract information provided by Host Nation source.
TCO 5: Apply knowledge of the origination of Host Nation and DoD Source.

Approved for public release, NGA-U-2023-00519

ECO 5.1: Determine the necessity and functions of Host Nation agreements.
TCO 6: Apply knowledge of the processes used to collect, receive, and handle Source information.
ECO 6.1: Apply the types of valid aeronautical source.
ECO 6.2: Identify how aeronautical source is disseminated from the provider to the organization.
ECO 6.3: Present how aeronautical source is routed and discrepancies are handled within the aeronautical domain.
ECO 6.4: Define how relevant source is stored and maintained for use in the production of aeronautical GEOINT products and services.
AA-II Core Competency 3 - Production: Aeronautical GEOINT Production (25%) Possesses a thorough understanding of aeronautical Safety of Navigation data and products. Applies knowledge of substantiated work processes and policies for production of aeronautical Geospatial Intelligence. Uses knowledge of hardware and software applications in daily work. Understands basic imagery functionality and products that support the Intelligence Community.
TCO 7: Analyze Aeronautical GEOINT products.
ECO 7.1: Describe the purpose of Digital Aeronautical Flight Information File (DAFIF).
ECO 7.2: Describe features and elements of DAFIF.
ECO 7.3: Describe the purpose of Flight Information Publications (FLIP).
ECO 7.4: Analyze features and elements of FLIP.
ECO 7.5: Demonstrate the purpose of Automated Air Facilities Intelligence File (AAFIF).
ECO 7.6: Distinguish features and elements of AAFIF.
ECO 7.7: Define Vertical Obstruction types and attributes.
ECO 7.8: Describe the purpose of the Electronic-Instrument Procedure Library (E-IPL).
ECO 7.9: Recognize the importance of products produced by Airfield Foundation Data.
TCO 8: Apply knowledge of tools and methods used in Aeronautical GEOINT production processes.
ECO 8.1: Differentiate between Users Guides/Work Instructions, Help Screens/Files, the Database Training Manual, and Product Specifications.
ECO 8.2: Summarize grids, projections, datums, and coordinates in terms of their use in aeronautical GEOINT.
ECO 8.3: Knowledge of imagery collection and interpretation techniques to identify aeronautical features.
ECO 8.4: Distinguish basic Geographic Information Systems (GIS) and imagery exploitation tools in support of aeronautical analysis.
ECO 8.5: Explain collaborative processes for aeronautical analysis with partners external to NGA.

ECO 8.6: Explain intra-NGA collaborative processes for aeronautical analysis.
TCO 9: Identify Aeronautical GEOINT systems and software.
ECO 9.1: Describe major systems and software used to produce aeronautical GEOINT.
TCO 10: Comprehend support and collaboration activities required for intelligence assessments.
ECO 10.1: Outline the coordination processes supporting intelligence assessments.
ECO 10.2: Describe elements of Disclosure and Release Policies as they relate to aeronautical products.
ECO 10.3: Identify methods used to gather geospatial or intelligence source material to satisfy aeronautical intelligence problems.
AA-II Core Competency 4 - Quality Assurance: Aeronautical Quality (13%) Maintains operational knowledge of aeronautical quality processes. Understands key attributes of the aeronautical Quality Management System (QMS) such as process improvements and auditing. Applies knowledge of customer feedback mechanism and how to initiate possible remedies to deficiencies or ineffective procedures in the quality system. Understands the importance of quality metrics.
TCO 11: Describe the functions of the Aeronautical QMS.
ECO 11.1: Explain the Aeronautical QMS in terms of how it pertains to aeronautical quality assurance.
TCO 12: Apply knowledge of aeronautical quality process improvements.
ECO 12.1: Summarize how process improvements, to include identification of deficiencies in quality or ineffective processes, can be made by utilizing the QMS.
ECO 12.2: Apply process improvement methods.
TCO 13: Understand how quality metrics affect the Aeronautical Navigation Office.
ECO 13.1: Discuss methods that provide statistics on quality and process effectiveness.
ECO 13.2: Summarize how metrics are analyzed to determine data input results and possible areas of concern.
AA-II Core Competency 5 - Data Processing: Aeronautical Data (10%) Understands data conformance to include data quality and processing requirements. Knows data supplier responsibilities within the aeronautical data chain. Identifies and describes Type 1 Data Letter of Acceptance (LOA) provisions and how the aeronautical analysis tradecraft complies with them using the Communication Navigation/Surveillance/ Air Traffic Management (CNS/ATM) Compliance Plan.
TCO 14: Understand essential elements of data conformance.
ECO 14.1: Describe the purpose of data processing requirements.

ECO 14.2: Explain the Aeronautical Data Chain and Data Supplier responsibilities.
ECO 14.3: Distinguish between the seven Data Quality Requirements (DQR).
ECO 14.4: Identify the purpose of a Type 1 Data LOA.
TCO 15: Understand data management using CNS/ATM Compliance Plan.
ECO 15.1: Summarize how aeronautical quality and processing requirements support data conformance.
ECO 15.2: Describe how CNS/ATM Compliance Plan requirements affect aeronautical GEOINT production.
AA-II Core Competency 6 - Customer Operations: Aeronautical Customer Service and Data/Product Access (12%) Applies various means to assist customers to include aeronautical help desk operations, the customer feedback process, and Notice to Airmen (NOTAM). Maintains understanding of key relationships with external entities and their role in aeronautical GEOINT production. Understands the ways aeronautical GEOINT is made available to entire customer base.
TCO 16: Apply knowledge of customer service mechanisms.
ECO 16.1: Apply key facets of aeronautical Help Desk operations.
ECO 16.2: Describe the aeronautical customer feedback process.
ECO 16.3: Communicate the need for NOTAM action.
TCO 17: Apply knowledge of aeronautical data, product dissemination, and access.
ECO 17.1: Understand on-line or on-demand NGA aeronautical data from identified locations.
ECO 17.2: Identify elements of the Aeronautical Application for mobile devices.
ECO 17.3: Explain the dissemination process of Aeronautical products.