GEOINT Production on the Unclassified Domain: Progression of the Tradecraft

CW4 Matthew Allen, U.S. Army, Military Intelligence (MI WOSSE Follow-On)

The Army G2 must institute a policy to incorporate unclassified and CUI Geospatial-Intelligence (GEOINT) production to support all echelons to enable intelligence sharing between Joint services, partner nations, and non-governmental organizations. Joint and multinational operations are hindered by cultural, not doctrinal, over-classification, and restrictive cross-domain limitations. Integrating GEOINT capabilities on the unclassified domain will remove cross-domain limitations, create cloud-enabled GEOINT, and incorporate artificial intelligence, machine learning, and computer vision.

GEOINT production on the unclassified domain enables the Army, Department of Defense (DOD), and Intelligence Community (IC) to share, host, collaborate, and disseminate GEOINT) more broadly. This approach facilitates more comprehensive access to critical geospatial data and intelligence, governed by the original classification authority based on criteria such as “need to know,” production requirements, or mission objectives. Such access ensures that all forms of geospatial information are available to all users. This authorization system promotes a “unity of effort,” aligning with the National System for Geospatial Intelligence (NSG) goals: Enterprise: Commercial GEOINT Strategy 2021.

Sharing and collaboration across military and intelligence organizations are critical for operational effectiveness (Joint Publication 2-0, 2020). This doctrine underlines the importance of accessible and actionable intelligence in supporting joint operations and strategic objectives. The transition to an unclassified GEOINT domain fosters greater interoperability, transparency, and coordinated effort, thus supporting the NSG’s aim to “increase transparency, commonality, and coordinated purpose” (Commercial GEOINT Strategy, 2021, p. 3) within Large Scale Combat Operations (LSCO).

The GEOINT field is modernizing, driven by unclassified technological advancements such as new sensors, machine learning (ML), and computer vision systems. As Col. Rob Shaw highlighted, “In a future fight, the US will have to fight with its partners and allies, and to make that interoperability real, our network has to be as flat, fast, and accurate as possible. Because it’s at an acceptable level of encryption, I can pull in our partner nations” (Shaw, 2023). The increasing availability of unclassified GEOINT aligns with this need for seamless integration.

Integrating automation and AI/ML with commercial data to accelerate intelligence activities underscores its importance (Commercial GEOINT Strategy, 2021). Producing GEOINT on the unclassified domain through Sensitive but Unclassified - Enhanced (SBU-E) channels makes information more accessible and shareable at the echelon Division and below. Unclassified GEOINT facilitates broader dissemination and enhanced operational coordination, fulfilling the strategic goals of increased transparency and interoperability while supporting the warfighter.

The lack of a clear policy or framework to authorize GEOINT analysis production on unclassified domains highlights the urgent need for a policy supporting the generation and dissemination of unclassified GEOINT to enhance support for Large-Scale Combat Operations (LSCO) and other critical military activities. No GEOINT policy, doctrine, or classification guidance within the Consolidated NGA Security Classification Guide (CONGA) denies unclassified GEOINT production or GEOINT products to be created, stored, or shared. As the NSG Strategy indicates, the Army “implements policies and procedures necessary to produce GEOINT at the lowest classification level and share at the broadest level of releasability.” This approach aligns with maximizing the utility and accessibility of GEOINT across various operational environments.

The IC cultural bias indicates that the higher the classification level, the more accurate the analysis becomes. Some mistakenly believe classifying information at the highest level possible and then downgrading it as needed is a sound approach. However, both actions have proven to be hindrances to the warfighter. “In 2010, during the Obama administration’s efforts toward transparency, an estimate suggested that as much as 90% of classified information did not need to be classified at that time or ever. Since then, the proliferation of digitally produced classified information has led experts to believe that this percentage could now be in excess of 95% or even 99%” (Shinkman, 2023). In addition, a study highlighted the challenges faced by NGA support on the battlefield. NGA support personnel struggled to obtain timely information and imagery for their partners. In response, US forces turned to unclassified imagery from commercial sources to “get the job done” effectively. (Sokolski, 2023, p. 6). An approach that considers classified and unclassified information is crucial for effective military operations. It ensures that warfighters have the correct data at the right time, regardless of classification levels.

It is best practice to classify information at the lowest possible classification. When needed, adding information may increase the classification to a higher level and enrich a different domain. NGA Geospatial Open-Source Situational Alert (GOSSA) is an example of using imagery analysis and adding PAI to provide GEOINT to the warfighter. Unclassified GEOINT will be disseminated to all authorized partners when analysis is started at the lowest classification level, adding information on the unclassified domains such as PAI and OSINT. For example, NGA recently published a GOSSA combining PAI and imagery report confirming a reported Russian Drone Hit Ternopil Industrial Facility (GOSSA, 2024).

Creating more intelligence and geospatial information on the unclassified domain would solve this issue. We need to “foster a culture of “commercial as a primary source” to maximize the utility of commercial capabilities for unclassified and classified use cases” (NGA, 2021, p. 3). Incorporating what we can share or create on the unclassified within PME training would start the mental and doctrinal transition of the JOINT forces to incorporate unclassified GEOINT production to increase shareability within military operations.

JP 5-0 states, “There is no single doctrine for multinational action, and each MNF develops its protocols, OPLANs, CONPLANs, and OPORDs. US planning for multinational operations should accommodate and complement such protocols and plans. JFCs must also anticipate and incorporate planning factors such as domestic and international laws, regulations, and operational limitations on using contributed forces, various weapons, and tactics.” Under the most current commercial imagery license share and release guidance, the USG plus license allows sharing with partners when there is a USG purpose. Unclassified GEOINT production will enable military leaders to develop COA to accomplish the mission by collaborating and sharing intelligence from Division on down and across to other partners. 2nd Cavalry Regiment AAR from the Saber Junction 23 exercise indicated, “When tactical units cannot talk to each other, nor access the same battlefield information (such as common graphics, operation orders, and other reports and data), the same units cannot fight as effectively as possible, and the whole operation can suffer. An SBU-E network can help overcome this important challenge.”

There are risks associated with creating GEOINT within the unclassified domain. These risks include the potential misuse of classified GEOINT tradecraft knowledge not authorized for the unclassified domain, non-GEOINT analysts creating GEOINT incorporating information that does not belong in its domain, and the risk of GEOINT databases or unclassified networks being compromised through hacking. Furthermore, commercial imagery collection may not be sufficiently rapid, causing delays from collection to analysis to deployment to the warfighter. Following GEOINT classification guidelines and proper quality control with two-person review and release will mitigate risks of classification spillage. GEOINT analysis of unclassified imagery is considered unclassified when staying within the image’s National Imagery Interpretability Rating Scale (NIIRS) resolution. To mitigate hacking of our DOD systems, the government must use the

latest encryption, integrate password generator programs, encrypt sensitive data both in transit and at rest, and utilize multi-factor identification of username and password, pin, and token ID as is used on JWICS. Finally, NGA source collection has policies and procedures for prioritizing commercial imagery collection. Modernization of commercial imagery satellite resolution, increasing numbers of satellites and constellations, and license flexibility provide many processes to give opportunity and redundancy for collection requirements.

Integrating AI and Machine Learning (ML) into GEOINT production on the unclassified domain will significantly enhance data-enabled capabilities through Object-Based Production (OBP) principles. AI and ML technologies can automate the analysis of commercial imagery using CV and other data sources, improving the accuracy and speed of information sharing and decision-making. Analysts confirm the CV detections and produce their imagery analysis using OBP principles to feed the loop and train AI/ML systems. By leveraging these advanced technologies, man and machine can produce GEOINT more efficiently and effectively. Integrating the latest AI/ML technology to provide a comprehensive common operating picture across the Army, Department of Defense (DOD), partner countries, NGOs, and the media on a need-to-know basis. GEOINT production in the unclassified domain is critical in supporting various Joint and Army warfighting functions, including movement and maneuver, intelligence, sustainment, and protection. However, it is limited to supporting only Phase 1 of the Fires targeting process. The rest of the Fires warfighting function phases should be conducted within classified domains. Additionally, unclassified GEOINT production does not support mission command or command and control functions (JP 5-0, 2024, p. III-76; APD FM 3-0, 2022, p. v).

Training for enlisted personnel at the 10-level Basic Officer Leader Course (BOLC) and Warrant Officer Basic Course (WOBC) should focus on updated classification protocols, GEOINT architecture, AI/ML/CV technologies, and technological advancements. This includes the integration of Object-Based Production (OBP) principles. Specifically, GEOINT Workstations (GWS) for the unclassified domain, the Maven program for computer vision, imagery production tools for reporting, and NIPR network connections must be seamlessly integrated within Titan systems.

The Army must develop a policy for sustained GEOINT production capabilities within the unclassified domain. Unclassified GEOINT production supports Joint and multinational operations, extending to the BCT level on NIPR and SBU-E domains. Producing GEOINT on the unclassified domain removes cross-domain limitations, allowing data to be web-enabled, scalable to echelons below Corp and partner nations, and integrated with the latest AI/ML/CV technology. GEOINT produced on the unclassified domain data is enabled and scalable, contributing actionable intelligence to common operating pictures supporting LSCO and MDO for the warfighter.

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