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MARINE CORPS ORDER 11000.25A

From: Commandant of the Marine Corps
To: Distribution List

Subj: INSTALLATION GEOSPATIAL INFORMATION AND SERVICES

Ref: (a) Executive Order 12906 as amended by Executive Order 13286, February 28, 2003
(b) DoD Initial Guidance for Installation Geospatial Information and Services (IGI&S) Capability Implementation, April 14, 2009
(c) DoDI 8115.02
(d) DoD Business Enterprise Architecture 10.0, February 14, 2013
(e) MCO 5400.54
(f) USMC Installations Strategic Plan, February 6, 2012
(g) SECNAV M-5210.1

Encl: (1) Terms and Definitions
(2) Geospatial Data Sets and Functional Data Set Leads

1. Situation. The Marine Corps mission requires efficient and effective operation of our installations as key national defense assets directly supporting the combat readiness of Marine Corps Operating Forces. Per references (a) through (f), the Marine Corps must have access to the best possible information about our installations and their surroundings to improve installation management practices, support the training of our Operating Forces, protect the environment, enhance our stewardship of natural resources, and ensure the long-term viability of our installations. Therefore geospatial information must be accurate, complete, and readily available to support the Marine Corps mission.

2. Cancellation. MCO 11000.25.

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3. Mission. To provide policy, guidance and standards for acquiring, utilizing, and implementing Marine Corps Installation Geospatial Information and Services (IGI&S), also referred to as *GEOFidelis*, in support of Marine Corps installation management. Enclosure (1) provides a list of terms and definitions used in this Order.

4. Execution

a. Commander's Intent and Concept of Operations

(1) Commander's Intent

(a) Geospatial information and services are a core capability to support the mission requirements for installation management.

(b) All Marine Corps IGI&S capabilities will provide precise and reliable information and will be based on a standard IGI&S data model, enterprise architecture, and common infrastructure foundation that supports interoperability across the Marine Corps.

(c) This Order, while providing guidance, allows commanders with installation management responsibilities flexibility in administering the IGI&S program.

(2) Concept of Operations

(a) All Marine Corps IGI&S shall be consistent with law, references (a) through (g), Executive Orders, Congressional guidance, Department of Defense (DoD), Department of Navy (DoN), and Marine Corps policy.

(b) All Marine Corps IGI&S shall be in direct support of mission requirements, accomplished through the most economic means, and implemented in accordance with approved IGI&S data standards and enterprise architecture views.

(c) All commands with installation management responsibilities shall include IGI&S in their management, review, analysis, and decision making process in order to effectively and efficiently meet their mission. Specifically, they shall:

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1. Develop, acquire, maintain, and share all applicable data sets, with associated metadata, in accordance with Marine Corps IGI&S data, metadata, and exchange standards.

2. Develop a process to capture geospatial data in all appropriate facilities, environmental and other related projects, contracts and studies. All data and metadata from these projects, contracts and studies should be provided in a format compliant with Marine Corps IGI&S data standards.

3. Ensure IGI&S requirements, data exchanges, and procedures are coordinated among and between functional and IGI&S communities at the local, regional, and enterprise levels.

b. CMC LF Essential Tasks. The CMC (LF) performs the following essential tasks.

(1) Provide leadership, functional advocacy, central direction and oversight for implementing and utilizing IGI&S to support Marine Corps installation management.

(2) Serve as the Marine Corps Program Sponsor and Resource Proponent for IGI&S.

(3) Establish goals, policies, guidance and standards for Marine Corps IGI&S to include, but not limited to, data management, data accuracy, data security and data sharing.

(4) Coordinate with the Director of Intelligence (CMC Code IPI), the Marine Corps functional manager for Geospatial Intelligence, on the following:

(a) To provide input on matters pertaining to the National Geospatial Intelligence Agency (NGA).

(b) To develop and ensure a Marine Corps enterprise approach for all matters dealing with geospatial information.

(c) To provide access to IGI&S standards, data, products, and services to the Operating Forces as needed.

(5) Act as functional liaison with USMC, DON, DoD and other Government agencies concerning Marine Corps IGI&S.

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(6) Establish a concept of operations for the GEOFidelis program and an enterprise architecture for USMC IGI&S compliant with reference (d), DoD, DoN, and USMC requirements and standards.

(7) Appoint a Geospatial Information Officer to oversee the GEOFidelis program and the development of the policy and guidance required by this Order.

c. Subordinate Element Missions

(1) Marine Corps Installations Command (MCICOM), Facilities Directorate (GF), shall oversee the execution of the GEOFidelis program in accordance with the roles and responsibilities outlined in reference (e) and all other applicable policy and guidance. This includes, but is not limited to, the following:

(a) Designate a lead to oversee implementation and execution across the Marine Corps of all IGI&S policies and standards required by this Order.

(b) Manage IGI&S programming and resource requirements in coordination with regional and installation commands, and functional data leads both internal and external to MCICOM, via the appropriate chain of command.

(c) Deploy Marine Corps IGI&S tools and technologies which facilitate geospatial data creation, maintenance, exchange, and use across the enterprise in compliance with USMC, DON, and DoD Information Technology policies and requirements.

(d) Administer IGI&S programmatic metrics, and establish key performance indicators to improve Marine Corps IGI&S effectiveness and efficiency.

(e) Establish standard business processes and operational procedures for Marine Corps IGI&S.

(f) Coordinate Marine Corps IGI&S civilian workforce community of practice/community of interest initiatives.

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(2) Functional Data Set Leads are responsible for ensuring functional area policies and guidelines include IGI&S in their activities in accordance with the policies and standards established by this Order. Enclosure (2) provides general categories and examples of data sets and data set leads within the Marine Corps. Responsibilities include the following:

(a) Define geospatial data content requirements, access and release controls, specifications, and quality standards necessary to meet their specific operational needs.

(b) Advocate and program for the portion of IGI&S data acquisition and maintenance, applications, tools, and services required to support their specific operational needs in compliance with DoD, DON and Marine Corps policy.

(c) Ensure functional system, application, and tool development initiatives include the effective integration of IGI&S capabilities where applicable.

(3) Regional Commanders with installation management responsibilities shall advocate and be accountable for an IGI&S capability across their respective area of responsibility in accordance with the established IGI&S policies, guidance, and standards as outlined in this Order. Specifically they shall:

(a) Coordinate IGI&S programming and resource requirements across their area of responsibility and transmit those requirements to MCICOM.

(b) Ensure compliance with all policies, standards, and procedures required by this Order across the installations within their area of responsibility.

(c) Coordinate IGI&S operations and procedures in accordance with reference (e) and other relevant policy and guidance.

(d) Identify regional subject matter experts, as required, to coordinate IGI&S requirements across their area of responsibility in support of specific functional needs.

(4) Installation Commanders shall implement and be accountable for IGI&S capability across their installation according to the policy and guidelines detailed in this Order. These responsibilities include the following:

(a) Identify local IGI&S requirements and coordinate those requirements with the appropriate higher headquarters.

(b) Maintain IGI&S data and functional capability as outlined in this Order.

(c) Ensure installation execution and compliance with Marine Corps IGI&S policy, standards, and guidance.

(d) Develop and maintain an installation data management plan to ensure proper data acquisition, sustainment, quality assurance and control of all geospatial data assets are maintained.

(e) Develop and maintain an installation data dictionary to ensure compliance with IGI&S data standards and to document the installation geospatial data requirements.

(f) Perform quality assurance and control on all installation geospatial data to ensure compliance with Marine Corps quality standards which support the installation management mission.

(g) Appoint a single IGI&S manager to oversee the installation's IGI&S efforts, provide IGI&S expertise to the installation commander, and ensure installation implementation of all standards, policies and procedures as outlined in this Order.

(h) Identify installation subject matter experts, as required, to ensure quality, completeness, and accuracy of installation geospatial data and metadata.

5. Administration and Logistics

a. Recommendations on improvements to the contents of this Order are encouraged and should be submitted to the Commandant of the Marine Corps (CMC) Facilities Division (LF) via the appropriate chain of command.

b. Records created as a result of this Order shall be managed according to National Archives and Records Administration approved dispositions per reference (g) to ensure proper maintenance, use, accessibility and preservation, regardless of format or medium.

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6. Command and Signal

a. Command. This Order applies to all non-tactical IGI&S to include data creation, collection, acquisition, editing, modification, and management (both in-house and contracted). Excluded from the provisions of this Order are geospatial information and services for tactical and intelligence purposes.

b. Signal. This Order is effective the date signed.



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TERMS AND DEFINITIONS

1. Data Dictionary. A data dictionary is a part of the metadata that is used to understand a database and the data it contains. The data dictionary identifies data elements and their attributes including names, definitions, and other information.
2. Data Set. A collection of related data.
3. Enterprise Architecture. The explicit description and documentation of the current and desired relationships among business and management processes and information technology.
4. Functional Data Set Lead. An agency, department, activity or organization, assigned at the highest level of authority which oversees a particular functional area, and has lead responsibility to coordinate, advocate, and program for the IGI&S requirements necessary to meet their functional needs.
5. GEOFidelis. The common pseudonym given to the Marine Corps IGI&S program.
6. GEOFidelis Data Model. The standard for all USMC Installation Geospatial Information and Services (IGI&S) geospatial data. The data model will provide data standard consistency that incorporates enough breadth for mission execution and the ability to record data in a consistent manner across the Marine Corps. Based on the Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE), the GEOFidelis Data Model maintains a common USMC IGI&S data standard that provides all USMC installations with a common structure for data layers and attributes.
7. Geospatial Information. Data that identifies the geographic location and characteristics of natural or constructed features and boundaries on the Earth and includes: (a) statistical data and information derived from, among other things, remote sensing, mapping, and surveying technologies; (b) mapping, charting, and geodetic data, and related products; and (c) coordinate and attribute data for location-based features, usually in the categories of point (e.g., a well), line (e.g., a fence), polygon (e.g., a forest), cell (e.g., a raster-based "rectangle"), or coordinates (e.g., the latitude-longitude of a point on the ground).

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8. Geospatial Information System (GIS). A computerized tool used to input, edit, store, retrieve, manage, analyze, and present geographic or geospatial information. GIS may refer to hardware, software, data or any combination of the three.

9. Installation Geospatial Information and Services (IGI&S). A core capability supporting Marine Corps installation management functions. Installation Geospatial information and Services (IGI&S) include geospatial data management, data services, visualization services such as printed maps and web-based map services, geospatial analytical services, instruction and training guidelines, and technical support that enable users and stakeholders to leverage geospatial data and tools in support of installation management functions and critical decision-making.

10. Installation Management. The policies, procedures and process which ensure the availability of responsive and effective land, facilities, structures and utilities to customer organizations, authorized individuals and families. The assets and services are provided subject to prevailing standards which recognize budget constraints.

11. Metadata. Descriptive information about data, such as content, source, vintage, accuracy, condition, projection, responsible party, contact phone number, method of collection, and other characteristics.

12. Spatial Data. Any and all data usually collected in a GIS system that represents objects that have a location.

13. Standards. Documented agreements containing technical specifications used consistently as rules, guidelines, or definitions of characteristics. Standards ensure that data, materials, products, processes, or services align to business requirements and are consistent across the enterprise.

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14. Subject Matter Expert (SME). An individual responsible for a particular function or resource within the installation management business domain. At the installation level, the SME for a particular function or resource possesses the knowledge and expertise necessary to coordinate geospatial requirements needed to support their mission. The installation SME responsibilities include: ensuring geospatial data are current, maintained in compliance with all applicable standards and professional practices; ensuring IGI&S data deliverables are included in relevant contracts and studies, and appropriately reviewed upon delivery.

GEOSPATIAL DATA SETS AND FUNCTIONAL DATA SET LEADS

| Data Sets | Data Set Leads | Examples |
|--|----------------|---|
| Utilities | MCICOM GF-1 | Water Lines, Gas Lines, Substations, Septic Tanks |
| Housing | MCICOM GF-3 | Housing Areas |
| Military Construction | MCICOM GF-4 | Future Projects |
| Environmental | MCICOM GF-5 | Air Pollution Sources, Sampling Points, Restoration Sites |
| Real Estate | MCICOM GF-6 | Parcels, Easements, Installation Boundaries, Noise Zones |
| Real Property | MCICOM GF-6 | Buildings, Roads/Paved Areas, Structures, Athletic Fields |
| Natural Resources | MCICOM GF-7 | Endangered Species, Forest Stands |
| Cultural Resources | MCICOM GF-7 | Archeological Artifacts, Historic Districts |
| Planning | MCICOM GF-7 | Accident Potential Zones, Land Use, Explosive Safety Arcs |
| Emergency Services and Physical Security | MCICOM G3 | ATFP Barriers, Sensors, Incident Locations, Fire Demand Zones, Evacuation Routes, Road Networks (Addressed Street Centerline) |
| IT and Communications | MCICOM G6 | Fiber Optic Lines and Cables, Switches, Antennas, Manholes |
| Training and Ranges | TECOM (RTAM) | Firing Points, Ranges, Surface Danger Zones, Weapons Danger Zones, Dudded Impact Zones, Drop Zones |