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MARINE CORPS ORDER 5230.19A

From: Commandant of the Marine Corps
To: Distribution List

Subj: LOGISTICS DATA MANAGEMENT

Ref: (a) DoDI 8320.02, "Sharing Data, Information, and Technology (IT) Services in the Department of Defense," August 5, 2013
(b) DoDI 8115.02, "Information Technology Portfolio Management Implementation," October 30, 2016
(c) DoDI 8320.07, "Implementing the Sharing of Data, Information, and Information Technology (IT) Services in the Department of Defense," August 3, 2015
(d) SECNAVINST 5000.36A
(e) MCO 5231.3
(f) MCO 5230.21
(g) DoDM 4140.01, Volume 8, "DoD Supply Chain Materiel Data Management and Exchange," October 2, 2014
(h) SECNAVINST 5230.14
(i) SECNAV M-5210.1
(j) SECNAVINST 5211.5E
(k) 5 U.S.C. 552a

Encl: (1) Glossary of Data-Related Terms

1. Situation. This order defines the roles, responsibilities, and framework of the Deputy Commandant, Installations and Logistics (I&L) in the performance of Marine Corps logistics data management. It also expands upon policy in references (a) thru (f) pertaining to the management of data as an enterprise asset.

2. Cancellation. MCO 5230.19

3. Mission. This order conveys policy for the management of logistics data and formalizing data as a distinct component of the Logistics Portfolio. This order also establishes the objectives and authority for Logistics Data Governance.

4. Execution.

a. Commander's Intent and Concept of Operations

(1) Commander's Intent

(a) The value of our data continues to escalate as it is captured and used for a widening variety of purposes. It's important that our data assets be carefully controlled to gain the most value from our portfolio of Logistics Information Technology (LogIT) and to ensure they are best employed to achieve enterprise objectives. Data management is as critical to the understanding and sustainment of Marine Corps logistics processes as it is to

the assets within LogIT. The Marine Corps will expand the benefits of LogIT by institutionalizing logistics data management.

(b) Data quality is a pervading and iterative performance area. Because of the subjective nature, it's rare to have specific data-related Key Performance Parameters (KPP) established in The Joint Capabilities Integration and Development System (JCIDS) requirement documents or Defense Business Systems' problem statements. Without framing data specifically in requirement documents, often it's neither considered nor included in the acquisition process. Therefore it's incumbent for the Logistics Advocate to identify authoritative data within LogIT (reference a) and, where appropriate, identify data-related KPPs.

(c) Data is an independent, strategic asset and will be aligned appropriately within LogIT. Investment in data is necessary as it's the underpinnings of current and future technologies. Data will be purposefully and specifically addressed in LogIT acquisition and sustainment analysis. This includes identifying expected outputs, sources, and inter-operational reliance, if known, before a final investment decision is made. The objective is to discover data dependencies and deficiencies prior to investment and prevent unnecessary architecture divergence or duplication of investment.

(d) The Marine Corps will establish controls for authoritative data maintained and distributed by processes, systems, or databases by reinforcing engineering and sustainment activities that expressly account for the data components within the portfolio. This will reduce ambiguity and pave the way for development of enterprise data quality measures.

(e) With increased interoperability and dependencies on data originating from external processes data must be gauged against defined measures to establish baselines and track trends. Data quality measurement will be conducted through routine Data Quality Assessments (DQA). The DQA activity primarily defines the plan for data collection, establishes the data quality objectives, methods for evaluation, and establishes priorities for corrective action.

(f) Unnecessary data conflicts and cost result from unconstrained data proliferation and redundancy. Per references (a) and (c), the Marine Corps will leverage certification and the portfolio management processes to reduce the number of data repositories and non-standard analytic and reporting sources. Data exported, shared, or otherwise provisioned by LogIT will be controlled to eliminate unsanctioned exposure.

(g) Institute interoperability as a requirement within LogIT to facilitate increased availability of authoritative, standardized, fit-for-purpose data resources serving strategic, operational, and tactical levels of military operations beyond administrative use.

(1) Concept of Operations

(a) Establish sustained Logistics Data Governance to define, standardize, supervise, audit, and protect data used in the execution of Marine Corps logistics operations.

(b) Integrate Marine Corps Logistics data governance into Logistics Portfolio Management and include evaluation of data components when assessing LogIT.

(c) Coordinate with other internal and external Offices, Division, Services, and Agencies to leverage data management efforts and resources, when applicable. Participate in efforts that seek a unified solution to data management and provisioning, to include underlying IT solutions.

(d) Develop foundational data quality processes and procedures, beginning at the data source. This includes understanding the data used by applications or systems in support of specific operations, documenting what data is essential to that operation, and establishing data quality measures with threshold and objectives.

(e) Ensure accountability is formally assigned over supporting data that underscores auditability and traceability of essential logistics-related activities.

a. Subordinate Element Missions

(1) Deputy Commandant for Installation and Logistics (DC,I&L)

(a) Serve as the primary authority over logistics data.

(b) Institute a data governance framework to ensure logistics data is managed thoughtfully and economically throughout its lifecycle.

(c) Establish a Logistics Data Governance Office (LDGO) with responsibility for the definition, standardization, organization, supervision, auditing, and protection of data used in the execution of Marine Corps logistics operations.

(d) Per reference (f), integrate data governance into the Logistics Portfolio Management process which includes Advocacy by Subordinate Functional Area Managers (SubFAM).

(e) Per reference (e), assign a Logistics Functional Data Manager (LFDM).

(f) Manage data assets on par with systems and applications, to include sustainment strategies and allocation of resources for logistics data.

(g) Plan, develop, maintain, and publish processes and procedures for governance and management of data utilized in support of logistics operations.

(h) Ensure replicated or provisioned data from logistics information systems are approved by the LFDM prior to execution (e.g. reporting, test, contracted efforts, vendors).

(i) Collect, define, manage, and expose data standards and business context for all logistics data used in support of the Marine Corps logistics mission.

(j) Ensure logistics Defense Business Systems (DBS) document all data-centric requirements in Problem Statements presented for review, pursuant to section 2222 of Title 10, U.S.C.

(k) Implement materiel data management and exchange procedures per reference (g).

(l) Per the intent outlined in references (a) thru (g), establish a cross-functional working group chartered to coordinate implementation of logistics data governance. Include all main equities participating in the foundational data lifecycle and, when feasible, create unified solutions.

1. Work collaboratively with enterprise-level stakeholders – e.g. functional area managers (FAMs), CD&I, C4, and MARCORSYSCOM - to define, document, and oversee logistics data governance processes.

2. Integrate the Logistics Data Working Group (LogDWG) efforts with internal or external parties - or any relevant working groups involved in data-related activities - to eliminate duplication of effort and inconsistent guidance.

3. Coordinate remediation of logistics data performance or quality issues that impact the logistics Community of Interest (COI).

4. Provide templates for development of standardized data-related documentation to assist the COI in meeting governance requests. Post these artifacts and directions for extraction and use by the COI.

(1) Commanding Generals, Marine Corps Systems Command (MARCORSYSCOM) and Marine Corps Logistics Command (MARCORLOGCOM)

(a) Ensure data quality measures are included in contracts and system support agreements in accordance with requirement documents. Field Service Representatives (FSR) and contractors are required to abide by established policy and guidance in data gathering and quality assurance. They are responsible to collect, provide, safe guard and record Logistic Data as defined in Marine Corps policy.

(b) Charge Program Managers with providing a Logistics Data Quality Assessment Plan for systems that produce or provide data in support of logistics functions using the prescribed templates, as directed in 4.b.1.l.4

(c) Submit requests to establish new or updated data exchange agreements (e.g. SLAs, MOAs, MOUs, and ICDs) for systems that produce or provide data in support of logistics functions to the LFDM using the prescribed templates, as directed in 4.b.1.l.4.

(d) Capture analysis of all logistics data quality, timeliness or availability issues to the LFDM for tracking, coordination and adjudication.

(e) Provide the LFDM data dictionaries with associated metadata for all locally-developed and locally-managed logistics systems and applications.

(f) MARCORLOGCOM will serve as functional logistics process experts integrated into the Logistics Data Governance framework.

(2) Deputy Commandant, Command, Control, Communications and Computers (C4)

(a) As data management is an integral component of Marine Corps Portfolio Management, include evaluation of data assets independently when assessing and directing Marine Corps IT investments.

(b) Ensure data-related guidance and directives are updated with a frequency to reflect current technologies and C4 architectures. Ensure guidance and references are made available to the Marine Corps FDM community.

(3) Deputy Commandant, Combat Development and Integration (CD&I)

(a) Ensure requirements documents identify the DOTMLPF-P discovery processes to cull out and specify data-centric requirements identified in this MCO and follow on guidance from I&L.

(b) Ensure all logistics requirement documents containing data-centric KPPs, Key System Attributes (KSAs), and Additional Performance Attributes (APAs) are staffed through I&L.

(4) Marine Corps Component Commanders (MARFORCOM, MARFORPAC, MARFORSOC, MARFORCENT, MARFOREUR, MARFORSOUTH, MARFORSTRAT, MARFORNORTH, MARFORAF, MARFORCYBERCOM, MARFORKOREA, MARFORRES)

(a) Confirm that any replication of data for operational purposes is documented, managed, and conforms to information security protocols. Ensure documentation is available upon request.

(b) Ensure requests to provision data for activities hosted outside of the USMC enclave in support of Joint or international operations (e.g. Humanitarian Assistance/Disaster Relief, Theater Security Cooperation) are submitted to the LFDM for approval prior to execution.

(c) Report LogIT data quality, timeliness or availability to the responsible Program Office for adjudication or escalation.

5. Administration and Logistics. Organizations responsible for formulating Logistics policy, writing requirements, developing logistics systems or applications, managing data repositories, and validating systems performance must do so in accordance with the instructions and policies in this order.

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

b. Privacy Act. Any misuse or unauthorized disclosure of Personally Identifiable Information (PII) may result in both civil and criminal penalties. The DON recognizes that the privacy of an individual is a personal and fundamental right that shall be respected and protected. The DON's need to collect, use, maintain, or disseminate PII about individuals for purposes of discharging its statutory responsibilities will be balanced against the individuals' right to be protected against unwarranted invasion

of privacy. All collection, use, maintenance, or dissemination of PII will be in accordance with the Privacy Act of 1974, as amended (reference (a)) and implemented per reference (b).

6. Command and Signal

a. Command. This order applies to:

(1) The Marine Corps Total Force and all Military Equipment (ME), systems, applications, data repositories, and automated technology capable of generating logistical data for external use (e.g. scanners, sensors), as referenced in this order and I&L policies, regardless of acquisition category, location, or project affiliation.

(2) Master data, referential data, form-loaded data (via batch processing), translation codes (and the associated definitions), and metadata used in LogIT.

(3) This order is not applicable to Navy-owned systems used in the Marine Corps aviation community.

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

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Glossary of Data Related Terms			
Acronym	**Term**	**Definition**	**Source**
	Assurance	Activities designed to reach a measure of confidence. Assurance is different from audit, which is more concerned with compliance to formal standards or requirements.	DGI
ADS	**Authoritative Data Source**	A source of data or information that is recognized by members of a Community of Interest to be valid or trusted because its provenance is considered highly reliable or accurate. During the life cycle process, the authoritative source (or system of use in which it is housed) can evolve according to use. Subjects Matter Experts validate that the data is authoritative, and Data Management assures that data from the authoritative source is provided to users, and that it is current.	DAMA
COI	**Community of Interest**	A collaborative group of users that must exchange information in pursuit of its shared goals, interests, missions, or business processes and therefore must have shared vocabulary for the information it exchanges.	MCO 5231.3 (2009)
	Compliance	A discipline, set of practices, and/or organizational group that deals with adhering to laws, regulations, standards, and contractual arrangements. Also, the adherence to requirements. Data Governance programs often support many types of compliance requirements: Regulatory compliance, contractual compliance, adherence to internal standards, policies, and architectures, and conformance to rules for data management, project management, and other disciplines.	DGI
	Data Dictionary	A database about data and database structures. A catalog of all data elements, containing their names, structures, and information about their usage, for the benefit of programmers and others interested in the data elements and their usage.	DGI
	Data Exchange	A data exchange is the electronic provisioning of data, in any form, between information systems. This includes associated instructions, agreements, and definitions.	TDWI
DG	**Data Governance**	The exercise of decision-making and authority for data-related matters. The organizational bodies, rules, decision rights, and accountabilities of people and information systems as they perform information-related processes. Data Governance determines how an	DGI

Glossary of Data Related Terms			
Acronym	**Term**	**Definition**	**Source**
		organization makes decisions — how we "decide how to decide." See also Decision Rights.	
	Data Governance Framework	A logical structure for organizing how we think about and communicate Data Governance concepts.	DGI
DGO	**Data Governance Office**	A centralized organizational entity responsible for facilitating and coordinating Data Governance and/or Stewardship efforts for an organization. It supports a decision-making group, such as a Data Stewardship Council.	DGI
DLM	**Data Lifecycle**	The phases, or states, of data from first capture to archive or purge. This includes the categorization, prioritization, and efficacy states as it relates to business processes. Each phase has its own characteristics and distinct data governance needs.	TDWI
	Data Mart	A subset of a data warehouse. Often a database, or collection of databases containing one subject area that includes summarized data from several tables, rather than the source data. Primarily used for executive decision making and reporting.	TDWI
	Data Replication	In the context of data management, data replication is making copies, or extracts, of authoritative data for use in a non-authoritative system or process.	DGI
	Data Repository	A loose term for a collection of multiple databases. Something entirely different from a meta-data repository. Not recommended for use.	DAMA
	Data Stakeholders	Those who use, affect, or are affected by data. Data Stakeholders may be upstream producers, gatherers, or acquirers of information; downstream consumers of information, those who manage, transform, or store data, or those who set policies, standards, architectures, or other requirements or constraints.	DGI
	Data Steward	A person with data-related responsibilities as set by a Data Governance or Data Stewardship program. Often, Data Stewards fall into multiple types. Data Quality Stewards, Data Definition Stewards, Data Usage Stewards, etc.	DGI
	Data Store	A data store (or operational data store) is a set of data collected to support a specific functional process and usually involves a simple data model. Where a data mart is designed	TDWI
	Form-loaded data	Data originating from users that is manually input into predefined, formatted forms (e.g. spreadsheets, text files) and inducted into an automated system through additive code, tools, or standard APIs	TDWI

Glossary of Data Related Terms			
Acronym	**Term**	**Definition**	**Source**
FAM	**Functional Area Manager**	The individual or designated agency responsible for the management and planning of all personnel and equipment within a specific functional discipline.	MCO 5231.3 (2009)
FDM	**Functional Data Manager**	The individual designated by the respective FAM to produce and control structuring of data and metadata within functional activities, information systems, and computing and communications infrastructures.	MCO 5231.3 (2009)
	Information Architecture	In its broadest definition, a discipline, process, and/or program focusing on the design and organization of data, unstructured information, and documents. In the context of Enterprise Architecture, it is a synonym for Data Architecture, which is one of the four Enterprise Architectures (with Application Architecture, Business Architecture, and System Architecture). In the context of designing documents and web pages, it is the structuring of large sets of information, as opposed to the development of the content of any content unit within the larger set.	DGI
IM	**Information Management**	The function of managing an organization's information resources for the handling of data and information acquired by one or many different systems, individuals, and organizations in a way that optimizes access by all who have a share in that data or a right to that information.	JP3-0
	Interoperability	The condition achieved among communications-electronics systems or items of communications-electronics equipment when information or services can be exchanged directly and satisfactorily between them and/or their users	JP6-0
ITPfM	**IT Portfolio Management**	As a key function of IT Governance, IT portfolio management is the formal process for managing IT assets such as software, hardware, middleware, an IT project, internal staff, an application or external consulting.	DGI
	Master Data	Master Data are the "nouns" upon which business transactions take action. Master Data describes core entities of an enterprise that are used by multiple business process and IT systems. Examples are parties (e.g., customers, employees, vendors, suppliers), places (e.g., locations, sales territories, offices), and things (e.g., accounts, products, assets, document sets). See also Reference Data.	DGI

Glossary of Data Related Terms			
Acronym	**Term**	**Definition**	**Source**
MDM	**Master Data Management**	A structured approach to defining and managing an organization's Master Data.	DGI
	Metadata	Data about data. The definition and scope of metadata depends upon context. In the context of Information Management, metadata is generally thought of as providing information (what database stores it? what data type is it? how long is the field? etc.) about a data element. Within the context of Data Governance, the term also includes "business" metadata such as the names and roles of Data Stewards. Metadata repositories are employed to store and report on metadata.	DGI
	Open Standards	Open standards are documents that contain technical specifications or other precise criteria to be used consistently as a rule, guideline, or definition of characteristics, to ensure that materials, products, processes, personnel or services are competent and/or fit for their intended purpose(s). They development process is be open to all persons directly and materially affected by the activity in question, and the committee's activities are publicly available.	NIST
	Referential Data	Data used for categorization. Often used in transactional systems as it relates data across functional and technical boundaries. E.g. lookup tables, transaction codes.	TDWI

Sources:

Acronym	Description
DAMA	The Data Management Association
DGI	The Data Governance Institute
JP1-02	Department of Defense Dictionary of Military and Associated Terms
JP3-0	Joint Publication 3-0, Joint Operations
JP6-0	Joint Publication 6-0, Joint Communications System
MCO 5231.3	Marine Corps Data Strategy
NIST	National Institute for Standards and Technology