U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

National Policy

ORDER 1375.1E

Effective Date:
11/16/11

SUBJ: Information/Data Management

1. Purpose of this order: This order establishes a policy for managing both information and data across the Federal Aviation Administration (FAA).

2. Who this order affects: Anyone who develops, manages, or otherwise maintains FAA information and data assets. Managers at all levels must ensure that information systems and services adhere to the information/data management requirements of this order.

3. Where Can I Find This Order? This order is located in electronic format on both the FAA's Intranet and Internet Web sites at the following links:
https://employees.faa.gov/tools_resources/orders_notices
http://www.faa.gov/regulations_policies/orders_notices

4. What This Order Cancels. FAA Order 1375.1D, Data Management, dated July 25, 2006, is canceled.

5. Scope: This order applies to sharable FAA data and information used to perform our mission. Data and information are both enterprise assets that need to be managed like any other asset. Data becomes information when analyzed and combined with other data to extract meaning and provide context to the business. Managing these assets is necessary to create, store, maintain, and securely share accurate quality data and information. However, all Classified National Security Information (CNSI) will be in accordance to FAA Order 1600.2. This document will focus on management of information assets which is crucial to achieving the FAA mission. Analyzing specific aspects of the information content and flow between business functions assists in identifying authoritative data sources.

6. Explanation of changes: This revision,

a. Changes the FAA Data Governance Board (FDGB) to an Information and Data Advisory Board (IDAB) that supports the FAA Enterprise Architecture Boards (EABs).

b. Introduces the concepts of managing information within Communities of Interest (COI's).

c. Specifies in detail the new roles and associated responsibilities of information and data management.

d. Defines the difference between information and data.

7. Background:

a. The FDGB was established as the first enterprise-wide board whose purpose was to effectively manage data and information within and across business processes in the support of our mission. With the maturation of the EA and its governance within the FAA, the IDAB will serve in an advisory capacity to those boards. The IDAB will provide guidance, expertise, and consulting services to the EABs. It will analyze the information and data landscape in order to assist the EABs in developing policies and establishing practices to manage the FAA's shareable information and data.

b. This order establishes clear separation in management and governance of information and data. For the purposes of this order, Data Management is performed at the operational system level, creating the raw data used in daily operations. Information Management is performed at the business layer where data is combined from multiple sources to produce business information needed to make critical business decisions. Both disciplines require your stewardship as you manage information and data.

c. According to Peter Block[1], stewardship is the willingness to be accountable for the well-being of the larger organization and by operating in service oriented architecture, which denotes a culture where all internal divisions of the enterprise exist to perform specific tasks and functions as contributors to ensure the success of the total organization. The same principle holds true for information stewardship which is the willingness to be accountable for a set of business information for the well being of the larger organization by operating in service, rather than control of that resource.[2]

d. The FAA Stewardship Program includes the following three types of stewards: business, information, and data Stewards. Other roles participate in the management of information and data, including custodians and technical experts. Both support the stewards and handle the information and data in a manner outlined by the steward and will be detailed in a future version of this order as the program matures.

8. Definitions: Appendix B defines the terms used in this order.

9. Authorities: Appendix C contains public laws, executive orders, Federal regulations, and orders that relate to FAA data and information management.

10. Policy: This order establishes policy and assigns organizational and management responsibilities to ensure the Information and Data Management Program is implemented consistently across the FAA. The requirements are as follows:

a. FAA information and data are enterprise resources and shall be managed from an enterprise-wide perspective. An enterprise information architecture and data architecture will be defined within the EA and managed under the EA governance structure. The lines of business/staff offices (LOBs/SOs), as stewards of agency information and data, are responsible

[1] Stewardship; Peter Block, 1993
[2] Improving Data Warehouse and Business Information Quality, Larry P. English, 1999

for the timeliness, accuracy, clarity, availability, and security of information and data under their stewardship.

b. The FAA shall maintain an Enterprise Information and Data Management Program. The program invokes the principles of stewardship as well as development of products including information architecture, data architecture, standardized/registered metadata, and support of information and data governance through the IDAB.

c. The COI's will be formed to address and resolve issues around information sharing and will be sanctioned by the EABs. The COI's shall support the implementation of this policy and ensure overall interoperability across FAA lines of business. The COI's shall align with the information architecture.

11. Policy Implementation:

a. The Information and Data Advisory Board (IDAB): This order establishes the IDAB as a subordinate board to the FAA EABs, to provide guidance and recommendations on how the FAA should govern and manage information and data. Under the direction of the EABs, this body will be responsible for:

(1) creating and administering the agency-level policies and procedures needed to promote and sustain successful information management practices,

(2) developing and coordinating data exchange standards (taking into account industry and international standards); and

(3) maintaining the corporate information management tools and services.

b. The IDAB will:

(1) Assist the FAA EABs in determining the FAA's information and data strategy, policies, standards, and architecture and assist with issue management by engaging in conflict resolution.

(2) In collaboration with LOBs and SOs, serve as an advocate within the information and data community to the EA, and serve as key communicators regarding FAA's progress, concerns, and challenges around information and data management.

(3) Develop policies for information management including how information should be released externally from the FAA to authorized consumers.

(4) Promote information management practices that comply with legislative mandates and guidelines as directed by the Enterprise Architecture Review Board.

(5) Establish Communities of Practice, which are assigned tasks in specific areas, as needed.

(6) Promote and monitor implementation of the stewardship roles/responsibilities as outlined herein as a major component of information and data management.

(7) Perform analysis and make recommendations for all IT investments to the Enterprise Architecture Review Board.

(8) Review changes to information and data artifacts for the EABs.

(9) Maintain a directory of COI's, authoritative sources of information and data, and designated stewards.

12. Roles and Responsibilities: Effective information and data management depends on organizations that acquire, develop, operate, or replace the agency's information systems. Each LOB/SO should designate a person or persons who understand and manage that organization's information and data needs and environment. The FAA LOBs/SOs will comply with this order and carry out responsibilities as follows:

a. The FAA Management Board: Each member of the Administrator's Management Team will implement this FAA Enterprise Information and Data Management Policy within his or her respective organization according to the specific guidelines developed for information and data management, AIO will work with each LOB/SO in developing an information and data management implementation plan. Each LOB/SO shall:

(1) Submit an information and data management implementation plan to AIO for review and approval.

(2) Identify stewards based on the roles/responsibilities outlined in Section 10 paragraph f to support COIs.

(3) Provide a list of stewards for inclusion in the IDAB registry.

b. The Deputy Assistant Administrator for Information Services and Chief Information Officer (AIO): AIO is the lead office for creating and maintaining the FAA Enterprise Information and Data Management Program. The program promotes sound management practices around the maintenance of existing (legacy) data and information, and development of new data and information. The LOBs/SOs support the program incrementally, as resources can be planned for in a manner consistent with annual appropriations. AIO-1 will:

(1) Provide a FAA Data Registrar, FAA Enterprise Data Architect and FAA Enterprise Information Architect and associated tools to the LOBs and SOs in support of this program and the IDAB.

(2) Develop the FAA Enterprise Information and Data Management Program Plan.

(3) Sponsor training programs for information and data management practices.

(4) Provide a web site with all current information and data standards.

c. The FAA Data Registrar: The Registrar is responsible for administering the standardization of data elements in accordance with ISO/IEC 11179 standard, *(Information Technology, Metadata Registries).* The registrar has decision authority over draft and final standard data elements within the FAA Data Registry. The FAA Data Registrar will:

(1) Provide overall technical direction of the data registry operations following ISO/IEC 11179 standard, and the data registry policies and procedures.

(2) Promote and coordinate reuse and sharing of metadata standards in the data registry within and across functional areas and among external interested parties (for example, International Civil Aviation Organization (ICAO)).

(3) Coordinate with stewards to maintain metadata standards in the registry.

d. The FAA Enterprise Data Architect: The Enterprise Data Architect is responsible for the FAA Enterprise Data Architecture. The FAA Data Architect will develop and maintain the FAA Enterprise Data Architecture in coordination with FAA stewards, in accordance with OMB Federal Enterprise Architecture Data Reference Model (DRM) requirements

e. The FAA Enterprise Information Architect: The Enterprise Information Architect is responsible for the development and maintenance of an FAA Enterprise Information Architecture which provides a lexicon of terms, and an ontology of information used within the FAA. The FAA Enterprise Information Architect will:

(1) Analyze FAA business information requirements at a high level and lead the development and review of an FAA Information Architecture in accordance with direction from the IDAB and COI's.

(2) Coordinate and support emerging activities relating to further development and use of the FAA Information Architecture, to support initiatives such as Content and Records Management, Service Discovery, and other initiatives requiring a future taxonomy or ontology for business information.

f. Stewards:

(1) Business Steward – defined as a business process expert that understands the rules, regulations, and other requirements associated with specific business processes in the FAA. Business stewards provide a tactical view of the agency and, as a subject matter expert from the actual business area, are responsible for the clear, concise definition and representation of business information and data required to support the processes within their functional area, to include data sensitivity and security levels. The general responsibilities of a Business Steward include:

(a) Participate in COI's with other stakeholders around shared missions, goals, interests, and business processes to improve delivery of information throughout the enterprise.

(b) Participate in development of the Information and Data Architectures.

(c) Establish, manage, and maintain requirements for data exchanges (internal and external).

(d) Establish requirements for information and data management artifacts.

(2) Information Steward - A person or organization delegated with the responsibility for managing the creation and maintenance of a specific information resource. These stewards have the statutory or operational authority for specified information products and are responsible for defining metadata associated with the information. [Note: If data or information is consumed from another producer (authoritative source) in creating information content, the consumer must uphold any policies or regulations governing its use. This is the role of a *custodian*]. The general responsibilities of an Information Steward include:

(a) Control of the generation, processing, dissemination, archiving and disposal of information products. Ensure sound change management practices are in place (e.g. record of changes and rationale for those changes).

(b) Verify the integrity of the data being used (from the authoritative data source) and validate the quality of information being produced. Resolve questions of information content and quality.

(c) Establish Memorandum of Agreements (MOA)/Service Level Agreements (SLA) with Consumers.

(d) Work closely with Information Systems Security Managers (ISSMs), Servicing Security Element (SSE) and LOB Privacy Officer regarding the security requirements and security controls for the information systems where the information resides.

(3) Data Steward – A person or organization delegated the responsibility for managing a specific set of data resources[3] . An operational data producer is accountable for the data created or updated as a result of the processes he or she performs. The general responsibilities of a Data Steward include:

(a) Control of the generation, collection, processing, dissemination, archiving, and disposal of data. Ensure sound change management (record of changes and rationale for those changes).

(b) Validate and ensure quality of produced data and resolve questions of data content and quality.

[3] ISO/IEC 11179-1 Information Technology, Metadata Registries

(c) Ensure existence and accuracy of metadata.

(d) Establish MOAs/SLAs with consumers.

(e) Work closely with ISSMs, SSE, and LOB Privacy Office regarding the security requirements and security controls for the information systems where the data resides.

g. COI – A collaborative group of stakeholders who develop a common understanding and shared vocabulary for that COI's information which is exchanged to accomplish shared missions, goals, interests and business processes. Stakeholders can include, but are not limited to stewards, architects, business subject matter experts and other involved parties. The COI's will:

(1) Become chartered around domains of information.

(2) Determine, designate, and register the authoritative sources of data within their domain of information.

(3) Manage approved replicated sources.

(4) Exercise systems engineering disciplines around systems and information by identifying information needs including new information requirements, delivery shortfalls, and/or opportunities to deliver the information more cost effectively.

(5) Allocate the identified information requirements to systems by identifying the information authority for the dissemination of information offerings.

J. Randolph Babbitt
Administrator

Appendix A. Charter for the FAA Information and Data Advisory Board

1. Purpose: This charter establishes the FAA Information and Data Advisory Board (IDAB) as a subordinate body of the FAA Enterprise Architecture Boards (EABs), which consist of NAS Enterprise Architecture Board and non-NAS Architecture Review Board; and makes IDAB responsible for the implementation of FAA information and data management policies to support the FAA's emerging net-centric environment. The FAA Data Governance Board will be replaced by the IDAB upon approval of this order.

2. Authority: The FAA Administrator, in accordance with FAA Order 1375.1 Information/Data Management, authorizes the IDAB.

3. Mission: The mission of the IDAB is to provide oversight and resolve issues related to the Information and Data Management Program, which encompasses FAA information and data standards and architectures, lexicons, vocabularies, and data dictionaries; to identify and resolve standardization and interoperability issues related to FAA data; and to serve as a conduit for information and coordination within the FAA multi-organization community. The IDAB also provides recommendations on net-centric standards as assigned to it by the EABs.

4. FAA Information and Data Advisory Board Participants: The participants of the IDAB will be as follows:

4.1. Co-chairpersons:

a. NextGen Director of the Office of Engineering Services
b. FAA Chief Technology Officer

4.2 Permanent Members: Permanent members represent various FAA organizations and are empowered to speak and act for those organizations in matters relating to FAA data standards. Permanent members will be all Business Stewards or designees from each LOB/SO that will represent their respective organization.

4.3 Executive Secretary: The Office of the Chief Technology Officer will provide the executive secretary and will oversee the coordination of IDAB activities. The executive secretary will be responsible for scheduling and conducting the meetings as approved by the co-chairpersons and for coordinating the administrative tasks of the IDAB in accordance with the operating procedures.

5. FAA Information and Data Advisory Board Responsibilities: In addition to those responsibilities identified in section 9 b. of this order**;** the IDAB is responsible for standardization of the lexicons and vocabularies used in the representation, exchange, and analysis of information and data shared across all FAA LOBs and SOs. The IDAB is responsible for identification and development of FAA Information and Data architecture and associated standards (common vocabularies, taxonomies, ontology, and namespace encoding) applicable to maximizing interoperability across the lines of business. Additions and modifications of existing net centric standards, along with the creation of new data standards, will be utilized to address FAA's specific needs. FAA IDAB will develop and publish written operating procedures within

90 days after approval of this Order.

6.0 FAA Information and Data Advisory Board Recommendations and Decisions: The co-chairpersons share equal responsibility for managing the IDAB and will make final decisions based on permanent members' recommendations. Decisions may be preceded by a period of collaborative discussion. The co-chairs may approve, disapprove, elevate, or defer decision on items presented to the board.

7.0 Changes to the Charter. The charter will be changed only with the approval of the FAA Administrator, upon recommendation of the IDAB.

Appendix B. Definitions

Approved Replicated Source: A duplicated set of information, fulfilling a specific business requirement provided by the Information Steward to be an approved source for that information service. This information source may be the functional combination of multiple, separate authoritative sources.

Authoritative Source: The origin or creation of data or information that is recognized by an LOBs/SOs or by members of a Community of Interest (COI) or Community of Practice (COP) to be of high quality and being highest precedence of source because it is considered to be highly reliable or accurate or is from an official publication or reference.

Business Steward: A business process expert that understands the rules, regulations, and other requirements associated with specific business processes in the FAA. Business stewards provide a tactical view of the agency and, as a subject matter expert from the actual business area, are responsible for the clear, concise definition and representation of business information and data required to support the processes within their functional area, to include data sensitivity and security levels.

Communities of Interest: A collaborative group of stakeholders who develop a common understanding and shared vocabulary for that COI's information which is exchanged to accomplish shared missions, goals, interests and business processes. Stakeholders can include, but are not limited to stewards, architects, business subject matter experts and other involved parties.

Communities of Practice: Groups of practitioners who are active participants in a common cause and have share proven methods, practices, procedures, techniques, and competencies, tools to improve or innovate the different disciplines within their group.

Custodian: Any information or data consumer, transcriber, consolidator or distributor that, upon receipt of that resource, is accountable for the proper handling of the resource they receive upholding any policies or regulations governing its use, in accordance with agreements made with that authoritative source.

Data: A representation of fact, concept, or instruction represented in a formalized form suitable for communication, interpretation or processing either by human and/or by automated systems. This is the lowest level of abstraction, compared to information and knowledge.

Data Element: A basic unit of identifiable and definable information that occupies the space provided by fields in a record or blocks on a form. A data element has an identifying name and value or values for expressing specific facts.

Data Management: The function of managing data used in manual or automated information systems. It includes the activities of strategic data planning, data element standardization, and data synchronization (e.g., arranging data to indicate coincidence or coexistence, data quality assurance, and database development and maintenance).

Data Registry: A tool that supports the registration and standardization of data elements and other administered components by recording and disseminating data standards, which facilitates data sharing among organizations and users. A data registry provides users of shared data a common understanding of a data element's meaning, attributes, and unique identification. Approved data standards in the registry will be used by information systems developers to enable data sharing.

Data Reference Model: One of the five reference models of the Federal Enterprise Architecture (FEA) required by The Office of Management and Budget. The Data Reference Model is a framework to enable information sharing and reuse via the standard description and discovery of common data and the promotion of uniform data management practices.

Data Standardization: Process of requiring application of an approved, uniform definition and representation to a data element or entity.

Data Steward: A person or organization delegated the responsibility for managing a specific set of data resources. An operational data producer is accountable for the data created or updated as a result of the processes he or she performs.

Enterprise Architecture: The FAA Enterprise Architecture provides an explicit description of the current and desired relationships among business and management processes and information technologies within the FAA. The Enterprise Architecture consists of business process models, technical reference models, and systems models and is directly supported by the FAA Enterprise Data Architecture.

FAA Enterprise Data Architecture: The FAA Enterprise Data Architecture is part of the FAA Enterprise Architecture and provides the blueprint of the high level data requirements of the agency. It is a model representing data objects that are important to an enterprise. It further articulates the relationships between data objects and the principles and guidelines governing their design and evolution over time. It is also a key component of the FAA's compliance with the OMB Federal Enterprise Architecture Data Reference Model.

FAA Information Architecture: The FAA Enterprise Information Architecture, in alignment with the FAA Enterprise Architecture, provides the blueprint of the information requirements of the agency. It is an ontology showing the dependencies between categories of information used by the business to make business decisions or initiate action. It also provides a lexicon of terms and identifies their placement within the ontology.

Federal Enterprise Architecture: A set of interrelated "reference models" designed to facilitate cross-agency analysis and the identification of duplicative investments, gaps and opportunities for collaboration within and across agencies. Collectively, the reference models comprise a framework for describing important elements of the FEA in a common and consistent way. Through the use of this common framework and vocabulary, IT portfolios can be better managed and leveraged across the federal government. The five FEA reference models are: Performance Reference Model (PRM), Business Reference Model (BRM), Service Component

Reference Model (SRM), Technical Reference Model (TRM), and Data Reference Model (DRM).

Information: Data in context. The meaning given to data or the interpretation of data based on its context. The finished product as a result of the interpretation of data. Data processed in such a way that it can increase the knowledge of the person who receives it. Data that:
(1) has been verified to be accurate and timely,
(2) is specific and organized for a purpose,
(3) is presented within a context that gives it meaning and relevance, and which
(4) leads to increase in understanding and decrease in uncertainty. The value of information lies solely in its ability to affect a behavior, decision, or outcome.

Information and Data Management Program: A comprehensive program responsible for the development of a set of policies, procedures, governance processes, and tools established to manage FAA information and data resources. It entails a global view of information and data management beyond organizational boundaries.

Information Management: The leading, planning, organizing, structuring, describing, and controlling of the collection of information (developed from one or more data sources) and monitoring that information throughout its life-cycle; including the distribution of information to one or more audiences, and reviewing users needs to incorporate future best practices.

Information Steward: A person or organization delegated with the responsibility for managing the creation and maintenance of a specific information resource. These stewards have the statutory or operational authority for specified information products and are responsible for defining metadata associated with the information.

Information System: A discrete set of information resources, either in stand-alone or networked configurations that is organized for the collection, processing, maintenance, transmission, and dissemination of information in accordance with defined procedures, whether automated or manual. Information systems are of two types:

a. General Support Systems: Interconnected information resources that are under the same direct management control and share common functionality, e.g., telecommunications and networks.

b. Major Application Systems. Systems that require special management attention because of their importance to the agency's mission; their high-maintenance, development, or operating costs; or their significant role in dealing with the agency's programs, finances, property, or other resources.

Lexicon: The lexicon is a collection of approved vocabulary terms and definitions that is maintained and accessible by users.

Management Board: The FAA Management Board consists of the FAA executive leadership, chaired by the Administrator. Membership includes the Deputy Administrator, Chief Operating

Officer, Assistant and Associate Administrators, Chief Counsel, and other staff members as designated by the Administrator.

Metadata: Metadata includes information that describes the characteristics of data; data or information about data; and descriptive information about an organization's data activities, systems, and holdings.

National Airspace System (NAS) Operational Data: NAS operational data are data shared among NAS applications and specified in interface requirements documents and interface control documents that are managed by the NAS Configuration Control Board.

Ontology: A formal description (specification) of the concepts and relationships that can exist for an area of knowledge or domain.

Service: Self-describing, self-contained, modular units of software application logic that provide defined business functionality. Services are consumable software units that typically include some combination of business logic and data. Services can be aggregated to establish a larger workflow or business transaction. Inherently, the architectural components of web services support messaging, service descriptions, registries, and loosely coupled interoperability.

Servicing Security Element (SSE): Is the organizational office that manages all security matters for a FAA facility.

Shareable Information: Shareable information consists of data that is not only capable of being shared but also eligible for sharing. Any data can be transmitted across interfaces but it is not always appropriate to do so due to privacy or security considerations. Therefore, shareable information must also be appropriate or eligible based on business qualification of the sensitivity data.

Standard Data Element: A data element that has been formally approved in accordance with the standardization procedures. Alternatively, standard data elements are data that have been coordinated through the standardization process and approved for use in information systems.

Stewardship: An organizational approach to establishing accountability for a resource for the wellbeing of the larger organization.

Taxonomy: A collection of controlled vocabulary terms organized into a hierarchical structure or categorization. Each term in a taxonomy is in one or more parent-child relationships to other terms in the taxonomy.

Technical Expert: For the purpose of this order a person responsible for the design and implementation of the infrastructures (information, systems, or technical) needed to support the stewards in ongoing business operations (i.e., architects, database administrators, security experts, etc.).

Appendix C. Authorities

The following related publications were used to develop this order. This list is not exhaustive. Other Federal laws, regulations, and guidance not listed here, such as executive orders, may apply.

Number	Federal Laws, Regulations, Guidance	Location
1	Clinger-Cohen Act (formerly known as Information Technology Management Reform Act, Division E), (P.L. 104-106).	http://www.opm.gov/egov
2	Executive Order 12906, National Spatial Data Infrastructure.	http://www.usgs.gov
3	Executive Order 13011, Federal Information Technology.	http://ocio.os.doc.gov
4	FAA Order 1280.1B, Protecting Personally Identifiable Information (PII)	http://www.faa.gov/regulations_policies/orders_notices/
5	FAA Order 1370.82A, Information Systems Security Program	http://rgl.faa.gov/Regulatory_and_Guidance_Library%5CrgOrders.nsf/0/0FC19CA3251357B6862571A2006439D1?OpenDocument
6	FAA Order 1600.1E, Personnel Security Program	http://www.faa.gov/regulations_policies/orders_notices/
7	FAA Order 1600.2E Safeguarding Classified National Security Information	http://www.faa.gov/regulations_policies/orders_notices/
8	FAA Order 1600.38F, Employee and Other Internal Security Investigations	http://www.faa.gov/regulations_policies/orders_notices/
9	FAA Order 1600.69 Facility Security Management Program (FSMP)	http://www.faa.gov/regulations_policies/orders_notices/
10	FAA Order 1600.75, Protecting Sensitive Unclassified Information (SUI)	http://www.faa.gov/regulations_policies/orders_notices/
11	FAA Order 1800.66, Configuration Management Policy.	http://www.faa.gov/regulations_policies/orders_notices/
12	Federal Information Security Management Act of 2002, December 17, 2002 (P. L. 107-347)	http://www.whitehouse.gov/omb
13	Government Paperwork Elimination Act, Title XVII, (P.L. 105-277).	http://www.whitehouse.gov/omb
14	Government Paperwork Reduction Act, (P.L. 104-13), as amended, 44 USC Chapter 31.	http://www.whitehouse.gov/omb
15	Government Performance and Results Act, (P.L. 103-162).	http://www.whitehouse.gov/omb
16	OMB Circular A-130, Management of Federal Information Resources, 61 FR 6428. HTTP://WWW.WHITEHOUSE.GOV/SITES/DEFAULT/FILES/OMB/ASSETS/OMB/CIRCULARS/A130/A13	http://www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a130/a130trans4.pdf

Number	Federal Laws, Regulations, Guidance	Location
	0TRANS4.PDF.	
17	OMB Circular A-16, Coordination of Geographic Information, and Related Spatial Data Activities.	http://www.whitehouse.gov/omb/circulars_a016_rev
18	OMB Memorandum M097-16, Subject: Information Technology Architectures. HTTP://WWW.WHITEHOUSE.GOV/OMB/MEMORANDA_M97-16/.	http://www.whitehouse.gov/omb/memoranda_m97-16/
19	Treasury and General Government Appropriations Act for Fiscal Year 2001, Section 515, (P. L. 106-554).	http://www.fws.gov/informationquality/section515.html
20	United States Code of Federal Regulations (CFR), Department of Transportation (DOT), 49 CFR, Part 1520, Protection of Sensitive Security Information.	http://www.gpo.gov/fdsys/pkg/CFR-2009-title49-vol9/xml/CFR-2009-title49-vol9-part1520.xml

Appendix D. FAA Data Management Artifacts

List of suggested artifacts to be created in any application/system development process:

FAA Lifecycle Management Process Figure 1.1.5-1	1.2.15: Lifecycle Management Documentations	Data/Information Artifacts
Service-Gap Analysis		
Concept and Requirements Definition		
	1. Shortfall Analysis/Quantification	Identify Authoritative Data Source
	2. Concept(s) of Use	
	3. Functional Analysis	
	4. EA Products/Views	Conceptual Data Model, Information Flow
	5. Safety Assessment	
	6. Preliminary Program Requirements	Include section on data requirement
	7. Range of Alternatives3	
	8. ROM Costs and Benefits	
Initial Investment Analysis		
	1. Initial Program Requirements	Include Conceptual Data Model and sections for data requirement
	2. Initial Business Case	
	3. Initial Implementation Strategy and Planning Document	Include Authoritative Data Source or Approved Replicated Source
Final Investment Analysis		
	1. Final Program Requirements	Include Data Requirements and Conceptual Data Model
	2. Final Business Case	
	3. Initial Implementation Strategy and Planning Document	Include Authoritative Data Source or Approved Replicated Source
	4. Acquisition Program Baseline (APB)	
Solution Implementation		
	Program Requirements	Include Logical Data Model, Standard Reference Tables, and Back up and Recovery Plan
	System Certification Accreditation Package (SCAP)	
In-Service Management		

FAA Lifecycle Management Process Figure 1.1.5-1	1.2.15: Lifecycle Management Documentations	Data/Information Artifacts
	Product Baseline	Logical Data Model, Physical Data Model, Data Dictionary, Canonical Model
	System Certification Accreditation Package (SCAP)	

Appendix E. Acronyms

ARB	Architecture Review Board
BRM	Business Reference Model
CNSI	Classified National Security Information
COI	Communities of Interest
COP	Communities of Practice
EA	Enterprise Architecture
EAB	Enterprise Architecture Board
FAA	Federal Aviation Administration
FEA	Federal Enterprise Architecture
FDGB	FAA Data Governance Board
DRM	Data Reference Model
ICAO	International Civil Aviation Organization
IDAB	Information Data Advisory Board
ISSM	Information System Security Manager
IT	Integrated Technology
LOB	Lines of Business
MOA	Memorandum of Agreement
NAS	National Airspace System
OMB	Office of Management and Budget
PRM	Performance Reference Model
SLA	Service Level Agreement
SO	Staff Office
SRM	Service Reference Model
SSE	Servicing Security element
TRM	Technical Reference Model