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JFACC Information Management (IM) Capability – 2010

Functional Decomposition of Operational Activities – Version 1.0

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Abstract

The JFACC Information Management (IM) Functional Decomposition of Operational Activities provides the hierarchy of activities for the Joint Force Air and Space Component Commander's (JFACC's) IM Capability in 2010. It documents key processes and information exchanges required of the JFACC IM Capability supporting an Air and Space Component. This capability is under the operational control of a JFACC supporting a Joint Force Commander (JFC) within a theater or geographic region and outlines the conceptual "baseline". The Functional Decomposition has five major sections; Provide Information Management/Net-centricity Governance (1.1 series), Manage Information/Net-centric Data Accessibility (1.2 series), Manage Net-centric Data (1.3 series), Manage Net-centric Pictures (1.4 series) and Manage Component Information Assurance/Network Defense Operations (1.5 series). Associated products of this briefing are the JFACC IM Operational Architecture and Concept Briefing.

MITRE developed a set of Operational Architecture Views describing the JFACC IM functionality in the 2010 timeframe. The operational views are a conceptual "baseline" documenting key processes and information exchanges required of an IM capability supporting a JFACC and the Air and Space Component within a theater joint force organization. The Architecture aligns with the Function Decomposition and is outlined in five major areas; IM Governance (1.1 series), Information/Net-centric Data Accessibility (1.2 series), Net-centric Data Management (1.3 series), Net-centric Picture Management (1.4 series), and Component Information Assurance/Network Defense Operations Management (1.5 series).

KEYWORDS: Community of Interest; COI; Metadata Catalogs; IMO; Information Management Office; IMC; Information Management Cell; IMB; Information Management Board; JIMB; Joint Information Management Board; Subscriptions; DDMS; IMP; Data; Data Management; Information Management; Net-Centric; Net-Centricity; CROP; Common Relevant Operational Picture; Data Asset; Information Exchange Product; IEP; Horizontal Fusion; Shared Space; User Profiles; Data Standardization; DoD Net-Centric Data Strategy; Data Standards; CCIR; Taxonomies; Ontologies; Ontology



U.S. AIR FORCE

JFACC Information Management (IM) Capability 2010

Functional Decomposition of Operational Activities Version 1.0

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Air Force C2&ISR Center Integration Directorate (AFC2ISRC/CX) Langley AFB, VA

General

This Functional Decomposition of Operational Activities provides the hierarchy of activities for the Joint Force Air and Space Component Commander's (JFACC's) Information Management (IM) Capability in 2010. It documents key processes and information exchanges required of the JFACC IM Capability supporting an Air and Space Component. This capability is under the operational control of a JFACC supporting a Joint Force Commander (JFC) within a theater or geographic region.

How to use this Document

1. This Functional Decomposition has five major sections; Provide Information Management/Net-centricity Governance (1.1 series), Manage Information/Net-centric Data Accessibility (1.2 series), Manage Net-centric Data (1.3 series), Manage Net-centric Pictures (1.4 series) and Manage Component Information Assurance/Network Defense Operations (1.5 series).

2. Each section can be identified by the number at the beginning of the activity name. The numbering of the activities indicates a hierarchy of activities within the section. This does not mean that activities will unfold serially. Many processes will run concurrently. The hierarchy merely gives an indication of the activity flow for particular processes. For example, building a picture may run concurrently with network defense operations although the numbering in the hierarchy may indicate one process follows the other.

4. Every activity has six parts as shown in the illustration below. The six parts are the; activity name, reference, description, and information exchange input, outputs, and controls.



IM 1.0 - Manage Air & Space Component Information/Net-Centricity

This activity is not referenced.

C2 Warriors effect procedures to provide information management/net-centricity governance, manage information/net-centric data accessibility, manage the Air & Space Component's net-centric data; build and monitor the Component's net-centric pictures or CROPs, and manage the Component's information assurance/network defense operations.

IM 1.1 - Provide Information Management/Net-centricity Governance

Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 10

The DoD CIO, and counterparts at the theater, joint force and component levels establish a net-centric data governance process to promote and sustain successful data management practices across their domains by reviewing and sharing metrics, best practices, and incentive structures. These net-centric governance processes also provide oversight of net-centric infrastructure development efforts. C2 Warriors implement procedures to govern information management procedures within the Air Component. These should align with higher-level information management requirements and practices. Info/Data approaches are incorporated throughout the Department of Defense processes and practices.

Input: Net-centric Incentives - Joint Force; Joint Force Shared Space Allocation - Air & Space Component; Air & Space Assessment - IM Plan; CAOC Assessment - CAOC User Profiles Management; IM - Continuity of Operations Plan (COOP)	Output: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; Net-Centric Information Management Strategy - Air and Space Component; CCIRs - Component Initial; IM - Profile Standards/Format; Net-centric Data Ratings; IM - Component Net-centric Metrics; IM - Component Data Standards	Control: Net-centric Info Governance - DoD; Net-centric Info Governance - Regional Component; Net-centric Info Governance - Joint Force; Net-centric Data Interoperability Standards - DoD; Net-centric Data Interoperability Standards - Regional Component; Net-centric Data Interoperability Standards - Joint Force; Info Management Plan (IMP) - Joint Force; CCIRs - JFC
IM 1.1.1 - Provide Component Net-cen	tric/Info Management Organization	Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 14

The DoD CIO, and counterparts at the theater, joint force and component levels establish a net-centric information governance process to promote and sustain successful information management practices across their domains by reviewing and sharing metrics, best practices, and incentive structures. These net-centric governance processes also provide oversight of net-centric infrastructure development efforts.

Input: Joint Force Shared Space Allocation - Air & Space Component	Output: IM - Battle Rhythm Guidance; IM - RFI Guidance; Net- centric Info Governance - Air and Space Component; IM - CCIR Guidance; IM - IM Plan Guidance	Control: Info Management Plan (IMP) - Joint Force; Net-centric Info Governance - DoD; Net-centric Info Governance - Regional Component; Net-centric Info Governance - Joint Force
IM 1 1 1 1 - Execute Information Management Officer Duties		CENTAE IMP ng 13 nara 32

IN 1.1.1.1 - Execute information management Officer Duties

CENTAR IIVIR, py. 13, paia 3.2

The IMO is the chief for all information management in the CAOC and is responsible for coordinating with the Joint IM counterparts, and other components. The IMO is intimately aware of the JFACC's information management requirements and possesses the authority to coordinate actions and processes to satisfy essential information needs. The IMO works closely with higher HQ IMOs to ensure all required reports are up-channeled consistent with the CFACC battle rhythm. The IMO serves as the focal point for CFACC information management issues with other functional component commander staffs. The IMO also works closely with command admin staffs and command and control elements (command posts) of all subordinate units in order to define reporting requirements.

Input:	Output: IM - IM Plan Guidance; IM - RFI Guidance; IM - Battle Rhythm Guidance; IM - CCIR Guidance; IM - Component IM Officer Services; IM Board Direction and Guidance; IM Cell Direction and Guidance	Control: Net-centric Info Governance - DoD; Net-centric Info Governance - Regional Component; Net-centric Info Governance - Joint Force

IM 1.1.1.1 - Direct Information Management Plan Development CENTAF IMP, Version 3.2, pg. 13, para 3.2.1

The IMO leads to effort to build the Component's Information Management Plan (IMP). The IMO ensures the IMP aligns with the Joint IMP and all related Governance.

Input:	Output: IM - IM Plan Guidance	Control: Net-centric Info Governance - Regional Component; Net-centric Info Governance - Joint Force; Net-centric Info Governance - DoD
IM 1.1.1.1.2 - Manage Daily Battle	Rhythm	CENTAF IMP, Version 3.2, pg. 19, para 4.2.1
Utilizing the IMP, the IMO ensures the Daily Battle Rhythm is m Monitor the daily operations requirements of higher HQ via ema Ensure all CAOC daily operations cycles meet the needs of the Monitor for conflicting CAOC requirements (particularly for key Keep changes to a minimum.		Intained to include the following: , message traffic, the AOC PORTAL or the CAOC Homepage oint Force ersonnel)
Input:	Output: IM - Battle Rhythm Guidance	Control:
IM 1.1.1.3 - Oversee CCIR Management		CENTAF IMP, Version 3.2, pg. 13, para 3.2.1

CCIR are a vital part of IM planning. CCIR are a prioritized list of information requirements identified by the Commander that are critical to understanding the flow of the operation, identifying risks, and making timely decisions. The IMO develops procedures to validate and manage CCIRs.

Input:	Output: IM - CCIR Guidance	Control:
IM 1.1.1.1.4 - Oversee RFI Manage	ement	CENTAF IMP, Version 3.2, pg. 13, para 3.2.1
RFI are vital means of requesting information to support military or RFIs.		perations. The IMO develops procedures to validate and manage
Input:	Output: IM - RFI Guidance	Control:
IM 1.1.1.5 - Lead IM Information	Management Cell	CENTAF IMP, Version 3.2, pg. 14, para 3.3
The CAOC IM Cell acts as the IM Cell carries out its assigned management personnel.	focal point for coordinating IM with I mission and responsibilities. The	in the CAOC and works directly for the IMO. The IMO ensures the IMO establishes the IM Cell structure and appoints key
Input:	Output: IM Cell Direction and Guidance	Control:
IM 1.1.1.6 - Oversees IM Reports	5	CENTAF IMP, Version 3.2, pg. 14, para 3.2.1
The IMO establishes reporting reporting to ensure timeliness a	requirements and timelines with su and correct formatting.	bordinate units. The IMO, through the IM Cell monitors unit
Input:	Output: IM - IM Reports Guidance	Control:
IM 1.1.1.1.7 - Chair Information Management Board		CENTAF IMP, Version 3.2, pg. 13, para 3.2.1
The IMO chairs the Componen Component boards. The IMO	it's Information Management Boarc establishes the board agenda and	 The IMO liaises directly with IMB chairs from the JIMB and other presides over the meetings.
Input:	Output: IM Board Direction and Guidance	Control:
IM 1.1.1.8 - Provide Component	IM Officer Services	CENTAF IMP, Version 3.2, pg. 13, para 3.2

The Component IMO provides numerous IM services to the Air & Space Component. These include the following: IMP Development Guidance; Daily Battle Rhythm Guidance; CCIR Management Guidance; RFI Management Guidance; IM Cell Direction and Guidance; IM Reports Guidance; IM Board Direction and Guidance

Guidance; IM Cell Direction and Guidance; IM - IM Reports Guidance; IM Board Direction and Guidance	Input: IM- IM Plan Guidance; IM - Battle Rhythm Guidance; IM - CCIR Guidance; IM - RFI Guidance; IM Cell Direction and Guidance; IM - IM Reports Guidance; IM Board Direction and Guidance	Output: IM - Component IM Officer Services	Control:
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IM 1.1.1.2 - Manage Information Management Board

CENTAF IMP, pg. 13, para 3.2.1

The Air & Space Component's Information Management Board (IMB) is the action arm of the IMO and serves as the key interface with the JIMB. The IMB coordinates CCIRs, manages shared space allocation to the Component, and resolves RFI issues.

Input: Joint Force Shared Space Allocation - Air & Space	Output: IM - Component IM Board Services	Control: IM Board Direction and Guidance; Info Management Plan (IMP) - Joint Force
Component		
IM 1.1.1.2.1 - Interface with Joint I	M Board (JIMB)	JTF-IM, pg, II-6, para 6

The Air & Space Component's Information Management Board is closely linked to the JIMB. The boards refer matters to one another for resolution or guidance. The IMO's designee from the Component's IMB will represent the Component as a member of the JIMB.

Input:	Output: IM - Joint	Control: IM Board Direction and Guidance
	Management Board Interface	

IM 1.1.1.2.2 - Coordinate Component CCIRs

This activity is not referenced

The IMB reviews Component CCIRs to ensure alignment with higher level CCIRs and the JFACC's critical information needs.

Input:	Output: IM - Component CCIR Coordination	Control: IM Board Direction and Guidance

IM 1.1.1.2.3 - Manage Initial Shared Space Allocation

This activity is not referenced

The IMB negotiates the initial Shared Space allocation for the Air & Space Component. The IMB processes ALLOREQs and forwards to the JIMB.

Input: Joint Force Shared Space Allocation - Air & Space Component	Output: IM - Proposed Allocation of Component Shared Space	Control: IM Board Direction and Guidance
IM 1.1.1.2.4 - Manage RFI Issues The IMB serves as an adjudica may be brought before the IME	ation body to resolve RFI issues. Ar 3 for mediation.	This activity is not referenced RFI that has been rejected or not satisfied within the Component
Input:	Output: IM - Component RFI Adjudication	Control: IM Board Direction and Guidance
IM 1.1.2.5 - Provide Component The Component IMB provides Component CCIR Coordinatior	IM Board Services numerous IM services to the Air & 3 n; Joint Force Shared Space Alloca	<i>This activity is not referenced.</i> Space Component. These include the following: JMB Interface; tion to the Component; RFI Adjudication
Input: IM - Joint Management Board Interface; IM - Component CCIR Coordination; IM - Proposed Allocation of Component Shared Space; IM - Component RFI Adjudication	Output: IM - Component IM Board Services	Control: IM Board Direction and Guidance; Info Management Plan (IMP) - Joint Force
IM 1.1.1.3 - Manage Information Manag	jement Cell	CENTAF IMP, pg., 14, para 3.3
The CAOC IM Cell acts as the focal Management Cell works closely with The CAOC IM cell is responsible for assistance for common software ap	point for coordinating IM within the the IMO to ensure IM policies and providing processes and business plications.	CAOC and works directly for the IMO. The Information procedures are implemented and followed throughout the CAOC. rules for life-cycle management of information as well as user
Input:	Output: IM - Component IM Cell Services	Control: IM Cell Direction and Guidance
IM 1.1.1.3.1 - Manage Workgroup	Managers (embedded/shared)	CENTAF IMP, pg. 14, para 3.3.1
The IM Cell provides oversight computer/network user manag media.	and training to WM personnel. WM ement to effectively manage inform	As provide integrated information management with ation as a corporate asset and strategic resource regardless of
Input: IM Cell Direction and Guidance	Output: IM - Workgroup Manager Direction and Guidance	Control:

IM Cell personnel carry out administrative duties to support the mission. This includes support for daily briefings, JFACC/CAOC Director Read File, Significant Events Log, and Phone/E-mail Listings.

Input:	Output: IM - Admin Support	Control: IM Cell Direction and Guidance
IM 1.1.1.3.3 - Manage AOC Portal Webpage/IM Homepage		CENTAF IMP, pg. 14, para 3.3.1

The IM Cell, as directed by the IMO develops and maintains the AOC Portal Webpage and the CAOC Homepage, enabling the CAOC staff to share data as well as exchange information in a collaborative environment

Input:	Output: IM - AOC Portal Webpage/CAOC Homepage	Control: IM Cell Direction and Guidance
IM 1.1.1.3.4 - Manage Electronic File Plan		CENTAF IMP, pg. 14, para 3.3.1
The IM Cell develops and main	The IM Cell develops and maintains the EFP for the CAOC and er	
Input:	Input: Output: IM - Electronic File Plan	
IM 1.1.1.3.5 - Manage Messaging Services		CENTAF IMP, pg. 14, para 3.3.1
The IM Cell oversees message distribution within the CAOC.		
Input:	Output: IM - Messaging Services	Control: IM Cell Direction and Guidance
IM 1.1.1.3.6 - Manage Suspense Control		CENTAF IMP, pg. 14, para 3.3.1, pg. 22,para 4.9
The IM Cell monitors tasking within the CAOC and manages the		Master Suspense Action Log.
Input:	Output: IM - Suspense Control Program	Control: IM Cell Direction and Guidance
IM 1.1.1.3.7 - Provide Component IM Cell Services		CENTAF IMP, pg., 14, para 3.3

The Component IM Cell provides numerous IM services to the Air & Space Component. These include the following: WM Direction and Guidance; Admin Support; AOC Portal Webpage/CAOC Homepage; Electronic File Plan; Message management; Suspense Control

Input: IM - Workgroup Manager Direction and Guidance; IM - Admin Support; IM - AOC Portal Webpage/CAOC Homepage; IM - Electronic File Plan; IM - Messaging Services; IM - Suspense Control Program	Output: IM - Component IM Cell Services	Control: IM Cell Direction and Guidance
IM 1.1.1.4 - Provide Component Net-ce	ntric Info Governance	Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 14

The Component IMO, IMB and IM cell provide net-centric info governance for the Air & Space Component. The direction and guidance provided by these entities allows the Component to effectively plan, execute and assess its IM mission.

Input: IM - Component IM Officer Services; IM - Component IM Board Services; IM - Component IM Cell Services	Output: Net-centric Info Governance - Air and Space Component	Control:

IM 1.1.2 - Establish Component CCIRs

CENTAF IM, pg. 19, para 4.3

CCIR are a vital part of IM planning. CCIR are a prioritized list of information requirements identified by the JFACC that are critical to understanding the flow of the operation, identifying risks, and making timely decisions. CCIR aid the JFACC by reducing available data to a manageable, finite set of information requirements, which need to be acquired, processed and filtered in a time-sensitive manner. More importantly, it focuses the staff on the exact elements of information the JFACC must have as soon as it is available. CCIR are situation dependent. The JFACC's information requirements change as events unfold; decision points pass, or branch plans are executed. CCIR must be continuously assessed for relevance to current and future situations.

Input:	Output: CCIRs - Component Initial	Control: Net-centric Info Governance - Air and Space Component; IM - CCIR Guidance; CCIRs - JFC
IM 1.1.2.1 - Establish Operational	Environment Category CCIRs	CENTAF IMP. pg. 46. para A3.1

The JFACC requires CCIRs in the following category: Environment - Refers to information regarding the operational environment. This includes, but is not limited to, information such as meteorological conditions, changes in national policy by the U.S., coalition, or neutral governments/forces, and relevant activities of non-governmental and private organizations.

Input:	Output: IM - Ops Environment CCIRs	Control: IM - CCIR Guidance; CCIRs - JFC
IM 1.1.2.2 - Establish Friendly Force	Category CCIRs	CENTAF IMP, pg. 46, para A3.1
The JFACC requires CCIRs in th order to make timely and approp levels of force effectiveness.	e following category: Friendly - Infor riate decisions. This category includ	mation the commander needs pertaining to assigned forces in es information regarding force locations, critical supply levels, and
Input:	Output: IM - Friendly Force CCIRs	Control: IM - CCIR Guidance; CCIRs - JFC
IM 1.1.2.3 - Establish Threat Catego	ry CCIRs	CENTAF IMP, pg. 46, para A3.1
other available information and ir warnings (I/W) of threat intents a intents or policies.	ntelligence to assist in assessing and nd future actions. Examples include	understanding the situation. This category involves indications and information regarding force movements, changes in opposing force
Input:	Output: IM - Threat Category CCIRs	Control: IM - CCIR Guidance; CCIRs - JFC
IM 1.1.2.4 - Validate Initial Set of Co	mponent CCIRs	CENTAF IMP, pg. 46, para A3.2
CCIRs are collated and reviewed additions as required. The validations as required.	for consistency and accuracy. The ated CCIRs are forwarded to the JFA	Component IMB coordinates on the initial set of CCIRs and CC for approval.
Input: IM - Ops Environment CCIRs; IM - Friendly Force CCIRs; IM - Threat Category CCIRs	Output: IM - Validated CCIRs	Control: Net-centric Info Governance - Air and Space Component
IM 1.1.2.5 - Approve Initial Set of Co	omponent CCIRs	CENTAF IMP, pg. 46, para A3.2
The JFACC reviews the validate	d CCIRs and approves their release.	
Input: IM - Validated CCIRs	Output: IM - CCIRs - Component Initial	Control:
IM 1.1.3 - Establish Component IM Strate	egy/Plan	Derived from DoD Net-centric Data Strategy, pg. 2.
The Air and Space Component's appr	oach to managing its net-centric info	mation program and how it will support Joint Force and higher-level

This Strategy defines the role for information management within the Air & Space Component. This Strategy expands the focus to visibility and accessibility of data rather than just standardization. It also recognizes the need for data to be usable for unanticipated users and applications, as well as for those that have been predefined. This Strategy identifies Air & Space Component approaches that will improve flexibility in data/information exchange, supporting interoperability between systems without requiring predefined, pair-wise interfaces between them.

Input: IM - IM Plan Guidance; Air &	Output: Info Management	Control: IM - Battle Rhythm Guidance; IM - RFI Guidance; Info
Space Assessment - IM Plan; IM -	Plan (IMP) - Air and Space	Management Plan (IMP) - Joint Force; Campaign Plan; JAOP
Continuity of Operations Plan (COOP);	Component; Net-Centric	
IM - Profile Standards/Format; Net-	Information Management	
centric Data Ratings; IM - Component	Strategy - Air and Space	
Net-centric Metrics; IM - Component	Component	
Data Standards		

IM 1.1.3.1 - Establish Component IM Strategy

Derived from DoD Net-centric Data Strategy, pg. 2.

This Strategy defines the role for information management within the Air & Space Component. This Strategy expands the focus to visibility and accessibility of data rather than just standardization. It also recognizes the need for data to be usable for unanticipated users and applications, as well as for those that have been predefined. This Strategy identifies Air & Space Component approaches that will improve flexibility in data/information exchange, supporting interoperability between systems without requiring predefined, pair-wise interfaces between them.

Input: Net-centric Info	Output: Net-Centric	Control: Info Management Plan (IMP) - Joint Force; JAOP;
Governance - Air and Space	Information Management	Campaign Plan
Component; CCIRs - Component	Strategy - Air and Space	
Initial	Component	

IM 1.1.3.2 - Plan Information Management/Net-Centricity

JTF IM (AFTTP(I)) 3-2.22 para 7a and CENTAF IMP para 3.2.1

C2 Warriors build the Air & Space Component's Information Management Plan documenting the Component's IM organization, the JFACC's dissemination policy; information requirements and general procedures, digital rules of protocol, the JFACC's battle rhythm, and the Continuity of Operations Plan (COOP).

Input: IM - Profile Standards/Format; Air & Space Assessment - IM Plan; CCIRs - Component Initial; IM - Component Data Standards; Net- centric Data Ratings; IM - IM Plan Guidance; IM - Component Net- centric Metrics; IM - Continuity of Operations Plan (COOP)	Output: Info Management Plan (IMP) - Air and Space Component	Control: Campaign Plan; Net-centric Info Governance - Air and Space Component; IM - Battle Rhythm Guidance; Info Management Plan (IMP) - Joint Force; JAOP; IM - RFI Guidance

IM 1.1.3.2.1 - Detail Component IM Organization

Based on higher level guidance, C2 Warriors provide the organizational construct to manage the Air & Space Component's IM program. This will include key management roles, levels of authority, initial manpower requirements, sub-division structure, and operating locations.

Input: Air & Space Assessment - IM Plan; IM - IM Plan Guidance	Output: IM Plan - IM Organization	Control: Info Management Plan (IMP) - Joint Force; Net-Centric Information Management Strategy - Air and Space Component; Net-centric Info Governance - Air and Space Component; Campaign Plan; JAOP
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IM 1.1.3.2.2 - Provide Commander's Dissemination Policy (CDP) JTF IM, pg., III-5, para 3b

The CDP serves as the JFACC's guidance portion of the IMP on dissemination of information within and outside of the component. The CDP is not a separate document, but a part of the IMP. It provides a foundation for developing the IMP and aids in prioritizing IM activities. It provides policy to guide JTF information management decisions in the absence of specific guidance or detailed instructions. Critical information needs must be predetermined and prioritized to ensure support for critical missions, prevent overload of routine information, and provide guidance to apportion information assets.

Input: Air & Space	Output: IM Plan -	Control: Info Management Plan (IMP) - Joint Force; Net-Centric
Assessment - IM Plan; IM -	Commander's Dissemination	Information Management Strategy - Air and Space Component;
IM Plan Guidance	Policy (CDP)	Net-centric Info Governance - Air and Space Component;
		Campaign Plan; JAOP

IM 1.1.3.2.3 - Document Info Requirements/General Procedures JTF-IM, III-4, para 3a(2)

C2 Warriors document basic information requirements, e.g., JFACC CCIRs, and general procedures to manage information, data assets and CROPs.

Input: CCIRs - Component Initial; IM - Profile Standards/Format; Net- centric Data Ratings; IM - Component Data Standards; IM - Component Net-centric Metrics; IM - IM Plan Guidance; Air & Space Assessment - IM Plan	Output: IM Plan - Info Requirements/General Procedures	Control: Info Management Plan (IMP) - Joint Force; Net-Centric Information Management Strategy - Air and Space Component; Net-centric Info Governance - Air and Space Component; Campaign Plan; JAOP; IM - RFI Guidance
Assessment - IM Plan		

IM 1.1.3.2.4 - Establish Digital Rules of Protocol

JTF-IM, pg. III-4, para 3a(3)

C2 Warriors establish and document the digital rules of protocol for the component.

Input: Air & Space Assessment - IM Plan; IM - IM Plan Guidance	Output: IM Plan - Digital Rules of Protocol	Control: Net-centric Info Governance - Air and Space Component; Net-Centric Information Management Strategy - Air and Space Component; Info Management Plan (IMP) - Joint Force
IM 1.1.3.2.5 - Document Command	der's Battle Rhythm	JTF-IM, pg. III-4, para 3a(4)
Air Warriors establish a genera	al schedule of events for air and sp	ace operations; this documents the JFACC's Battle Rhythm.
Input: Air & Space Assessment - IM Plan; IM - IM Plan Guidance	Output: IM Plan - Commander's Battle Rhythm	Control: Net-centric Info Governance - Air and Space Component; Net-Centric Information Management Strategy - Air and Space Component; Info Management Plan (IMP) - Joint Force; IM - Battle Rhythm Guidance
IM 1.1.3.2.6 - Document the COOF	D	JTF-IM, pg. V-9, para 9c(1)
 An integral part of the IMP, the COOP may include the following: (a) List of critical information systems related to their respective in (b) Authorized users list, distinguished by tier groups. (c) Local INFOCON procedures. (d) INFOCON quick reference matrix of critical systems. (e) Operational impact assessment of mission. (f) Reporting instructions. 		nission.
Input: Air & Space Assessment - IM Plan; IM - Continuity of Operations Plan (COOP); IM - IM Plan Guidance	Output: IM Plan - Component COOP	Control: Net-centric Info Governance - Air and Space Component; Net-Centric Information Management Strategy - Air and Space Component; Info Management Plan (IMP) - Joint Force
IM 1.1.3.2.7 - Compile IMP Input		Derived from CENTAF IMP, pg 13.

C2 Warriors assemble the key parts of the Component IM Plan and submit it as a draft for coordination.

Input: IM Plan - IM Organization; IM Plan - Commander's Dissemination Policy (CDP); IM Plan - Info Requirements/General Procedures; IM Plan - Digital Rules of Protocol; IM Plan - Commander's Battle Rhythm; IM Plan - Component COOP	Output: IM Plan - Draft	Control:	
IM 1.1.3.2.8 - Coordinate IMP		Derived from CENTAF IMP, pg 13.	
C2 Warriors coordinate the IM	P Draft and submit the coordinated	plan for approval.	
Input: IM Plan - Draft	Output: IM Plan - Coordinated	Control: Info Management Plan (IMP) - Joint Force	
IM 1.1.3.2.9 - Approve Componen	t IMP	Derived from CENTAF IMP, pg 13.	
The JFACC or designated aut	hority approves the Air & Space Co	mponent's Information Management Plan (IMP).	
Input: IM Plan - Coordinated	Output: Info Management Plan (IMP) - Air and Space Component	Control:	
IM 1.1.4 - Establish Component Data Standards, Metrics and Incentives		Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 10, para 2.2, pg. 14, para 3.3.4	
The IMO establishes Data Standards to ensure data is visible, accessible, understandable, trusted, interoperable, and responsive. Metrics will be collected to track implementation and application of the approaches. Metrics will be helpful in evaluating usage to ensure participation across the Component. Metrics also serve as a means to evaluate the effectiveness of the overall Information Management Strategy. Measurement techniques will be developed to ensure that metrics are captured in a useful and consistent manner and reflect higher- level metrics.			
Input:Net-Centric InformationOutManagement Strategy - Air andMetriSpace Component; Net-centricInceIncentives - Joint Force;Star	put: IM - Component Net-centric rics; IM - Component Net-centric ntives; IM - Component Data ndards	Control: Net-centric Data Interoperability Standards - DoD; Net-centric Data Interoperability Standards - Regional Component; Net-centric Data Interoperability Standards - Joint Force	
IM 1.1.5 - Establish User Profile Standards		Derived from JTF-IM, pg. IV-14, para 10b(4).	

C2 Warriors develop standardized user profiles for crew positions within the CAOC and key nodes outside the CAOC. These profiles should reflect user needs to address common operational requirements within the region. Workcenter Managers provide input from their respective areas. At the onset of operations, these profiles may be tailored to meet operator needs.

Input: IM - Component Net- centric Metrics; IM - Component Net-centric Incentives; IM - Component Data Standards; Net- Centric Information Management Strategy - Air and Space Component; CAOC Assessment - CAOC User Profiles Management	Output: IM - Profile Standards/Format; Net-centric Data Ratings	Control: Net-centric Info Governance - Air and Space Component

IM 1.2 - Manage Information/ Net-centric Data Accessibility

Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 10

C2 Warriors process information requirements. This may result in a new info product subscription, a new data asset requirement, or a data asset subscription. New data asset requirements dictate an analysis of shared space availability.

Input: IM - Profile Standards/Format;	Output: IM - CROP Request; IM -	Control: Info Management Plan (IMP) - Air and Space
CCIRs - Component Initial; IM - User	Net-centric Data Want Ad; IM -	Component; Joint Force Shared Space Allocation - Air & Space
Profile Change Request; Metadata	Processed RFI; IM - Data Asset	Component
Catalog - Air and Space Component;	Subscription; IM - Component CROP	
Metadata Catalog - Joint Force;	Subscription; IM - Component Shared	
Metadata Catalog - Regional	Space Status; IM - Component	
Component; Metadata Catalog - Land	Shared Space Allocation; Shared	
Component; Metadata Catalog -	Space ALLOREQ; Data Access	
Maritime Component; Metadata	Listing; IM - Archive Status; IM -	
Catalog - Special Operations	Archive Data/Information; IM -	
Component; Metadata Catalog -	Component Repository Back-up	
TRANSCOM; Metadata Catalog -	Status; IM - Archive Retrieval	
STRATCOM; Metadata Catalog -	Request	
Global Weather;	-	

IM 1.2.1 - Provide Data Access Services

DoD Net-Centric Data Strategy, 9 May 2003, para 3.1.1, pg. 13

Data access services are any mechanisms that help expose data that is not otherwise available to users and applications. For example, a data access service may be a registered, accessible software interface that allows users and applications to extract information from an inventory database. C2 Warriors produce a listing of services and make it available to users. The listing documents all Component data assets available for subscription.

Input: Metadata Catalog - Air and Space Component; Metadata Catalog - Joint Force; Metadata Catalog - Air and Space Component; Metadata Catalog - Regional Component; Metadata Catalog - Land Component; Metadata Catalog - Maritime Component; Metadata Catalog - Special Operations Component; Metadata Catalog - TRANSCOM; Metadata Catalog - STRATCOM; Metadata Catalog - Global Weather	Output:	Data Access Listing	Control:
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IM 1.2.2 - Process Component Information Requirements

C2 Warriors receive and process information requirements. Users may request: Access to a net-centric data asset currently within a catalog; Modification to a cataloged data asset; Establishment of a new (uncataloged) data asset; A subscription to a net-centric data product, e.g., CROP - SIAP.

These requests/requirements are processed. This may entail rejection, acceptance, referral or return for clarification. Acceptances are processed within the Air and Space Component. Referrals are forwarded to applicable net-centric data/info product owners who may satisfy the request. Established or updated profiles may dictate user access to information products and data assets.

Input: IM - Profile	Output: IM - CROP Request; IM -	Control: Data Access Listing; CCIRs - Component Initial; Info
Standards/Format; IM - User	Net-centric Data Want Ad; IM -	Management Plan (IMP) - Air and Space Component
Profile Change Request	Processed RFI; IM - Data Asset	
	Subscription; IM - Component CROP	
	Subscription	

IM 1.2.2.1 - Analyze User Profiles

This activity is not referenced

C2 Warriors process Standardized User Profiles and Change Requests to submit product requests in the form of a CROP subscription, data asset subscription, or for data unavailable, an RFI.

Input: IM - Profile Standards/Format; IM - User Profile Change Request	Output: IM - CROP Request; IM - Data Asset Request; RFI	Control:
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IM 1.2.2.2 - Process CROP Subscriptions

This activity is not referenced

The CROP subscription request is forwarded to a POC for the required CROP. The request is processed and filled through a subscription.

Input: IM - CROP Request	Output: IM - Component CROP Subscription	Control: Info Management Plan (IMP) - Air and Space Component
IM 1.2.2.3 - Process Data Asset Subscr	iptions	This activity is not referenced
C2 Warriors fill the data asset reque	st through a subscription.	
Input: IM - Data Asset Request; Metadata Catalog - Air and Space Component; Metadata Catalog - Joint Force; Metadata Catalog - Regional Component; Metadata Catalog - Land Component; Metadata Catalog - Maritime Component; Metadata Catalog - Special Operations Component; Metadata Catalog - TRANSCOM; Metadata Catalog - STRATCOM; Metadata Catalog - Global Weather	Output: IM - Data Asset Subscription	Control: Info Management Plan (IMP) - Air and Space Component
IM 1.2.2.4 - Manage Routine RFIs		CENTAF IMP, pg. 20, para 4.4
C2 Warriors oversee the RFI proces environment, formal RFI should be s an answer before submitting an RFI analyze the availability of information	 s. RFI are vital means of requestin submitted by exception only. This r Once a routine is RFI submitted, n. 	g information to support military operations. In a collaborative neans the requestor must exhaust all available means of finding C2 Warriors determine its type, validity, and priority. They also
Input: RFI	Output: IM - Processed RFI; IM - Net-centric Data Want Ad	Control: CCIRs - Component Initial; Data Access Listing; Info Management Plan (IMP) - Air and Space Component
IM 1.2.2.4.1 - Determine RFI Type There are two types of RFI: into infrastructure on enemy activiti and systems are collecting info information concerning friendly functions, operational planning	(Operational/ Intelligence) elligence and operational. Intellige es. These RFI are ultimately used rmation to satisfy operational force or coalition force statues, readines and other campaign management	CENTAF IMP, pg. 20, para 4.4.1 nce RFI is used to request information through intelligence to also perform collection management, and to ensure sensors s needs. On the other hand, operational RFI are used to request is information, etc. This information is used to support C2 functions.
Input: RFI	Output: IM - RFI Type	Control:
IM 1.2.2.4.2 - Determine RFI Validi	ty	CENTAF IMP, pg. 47, para A4.1; JTF-IM, pg. III-9, para 5f.

Input: IM - RFI Type	Output: IM - RFI Validity	Control: CCIRs - Component Initial; Info Management Plan (IMP) - Air and Space Component
IM 1.2.2.4.3 - Determine RFI F	Priority	This activity is not referenced.
C2 Warriors assign a prio	rity (rack and stack) to RFIs.	
Input: IM - RFI Validity	Output: IM - RFI Priority	Control: Info Management Plan (IMP) - Air and Space Component
IM 1.2.2.4.4 - Determine Infor	mation/ Data Asset Availability	This activity is not referenced
C2 Warriors determine inf	formation/data sources to fulfill the RF	
Input: IM - RFI Priority	Output: IM - RFI Information Availability	Control: Data Access Listing
IM 1.2.2.4.5 - Compile RFI An	alyses	This activity is not referenced.
C2 Warriors assemble su Ad. Input: IM - RFI Type; IM RFI Validity; IM - RFI Prio	pporting analyses to fulfill the RFI. Fo - Output: IM - Processed RFI; vrity; IM - Net-centric Data Want Ad	r RFI's that can not be satisfied, C2 Warriors prepare a Data Want Control:
IM - RFI Information Availability		
IM 1.2.3 - Manage Shared Space/Repositories		Derived from DoD Net-Centric Data Strategy, 9 May 2003, para 3.1.1, pg. 13
Shared spaces virtual and actual - to a cataloged data asset. The Join the repositories that make up the sh	 are established to provide a "store a t Force IMO allocates shared space to ared space. 	nd serve" mechanism for data assets or to accommodate changes Components. The Components manage their allocated space and
Input: IM - Component CROP Subscription; IM - Data Asset Subscription; IM - Processed RFI;	Output: IM - Component Shared Space Status; IM - Component Shared Space Allocation; Shared Space ALLOREQ; IM - Component	Control: Joint Force Shared Space Allocation - Air & Space Component; Info Management Plan (IMP) - Air and Space Component

C2 Warriors monitor repositories for capacity and data flow.

Input: IM - Processed RFI; IM - Data Asset Subscription; IM - Component CROP Subscription	Output: IM - Component Shared Space Status	Control: Joint Force Shared Space Allocation - Air & Space Component
IM 1.2.3.2 - Allocate Shared Space Wit	hin Component	This activity is not referenced.
C2 Warriors allocate Component sh	nared space to relevant data produc	cers.
Input: IM - Component Shared Space Status	Output: IM - Component Shared Space Allocation	Control: Joint Force Shared Space Allocation - Air & Space Component; Info Management Plan (IMP) - Air and Space Component
IM 1.2.3.3 - Request Joint Force Share	d Space Allocation Adjustment	This activity is not referenced.
C2 Warriors request an adjustment	to shared space allocation.	
Input: IM - Component Shared Space Status	Output: Shared Space ALLOREQ	Control:
IM 1.2.3.4 - Manage Data/Information A	Archives	I
Input: IM - Component Shared Space Status; IM - Archive Retrieval Request	Output: IM - Component Repository Back-up Status; IM - Archive Status; IM - Archive Data/Information	Control: Joint Force Shared Space Allocation - Air & Space Component; Info Management Plan (IMP) - Air and Space Component
IM 1.2.3.4.1 - Manage Repository	Back-up Capability	This activity is not referenced
IM personnel provide a back-u	p capability for Component reposite	ories and monitor status of that capability.
Input:	Output: IM - Component Repository Back-up Status	Control: Info Management Plan (IMP) - Air and Space Component
IM 1.2.3.4.2 - Manage Component	Data /Information Archive	This activity is not referenced.

Component data/information is archived as stipulated in the IMP. IM personnel monitor archives and provide status.

Input: IM - Component Repository Back-up Statu IM - Component Shared Space Status	s; Output: IM - Archive Status	Control: Joint Force Shared Space Allocation - Air & Space Component; Info Management Plan (IMP) - Air and Space Component
IM 1.2.3.4.3 - Manage Archive	Retrieval Requests	
C2 Warriors process retrie	eval requests for archive information a	nd data.
Input: IM - Archive Statu IM - Archive Retrieval Request	s; Output: IM - Archive Data/Information	Control:
IM 1.3 - Manage Net-centric Data - Air Comp	ponent	Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 10
The overarching activity whereby C2 War maintain assigned catalogs and register r	riors post Air Component data assets a netadata.	and associate metadata, apply descriptors, establish ontologies,
Input: IM - Component Net-centric Metrics; IM - Component Data Standards; Data Asset	Output: IM - Data Asset with Metadata Associated; IM - Posted Data Asset; Metadata Registration Request; Metadata Catalog - Air and Space Component	Control: Net-centric Info Governance - Air and Space Component; DDMS; Info Management Plan (IMP) - Air and Space Component

IM 1.3.1 - Define Component Ontologies

DoD Net-Centric Data Strategy, 9 May 2003, pg. 15, para 3.4.1

The Component IMO establishes ontologies that best reflect the community understanding of their shared data. Ontologies include data categorization schemes, thesauruses, vocabularies, key word lists, and taxonomies. Ontologies promote semantic and syntactic understanding of data. For example, taxonomies enhance discovery by providing a hierarchical means of searching for data while providing users and applications with additional insights about data assets by indicating their placement among other data assets. Vocabularies define terms used in describing data assets, and the thesauruses identify related terms to assist translation services. The ontologies are compiled and added to the Component's Metadata Catalog.

Input: IM - Component Net- centric Metrics	Output: IM - Component Ontologies	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; DDMS

IM 1.3.1.1 - Define Component Data Schemes

DoD Net-Centric Data Strategy, 9 May 2003, pg. 15, para 3.4.1

The Component IMO establishes ontologies that best reflect the community understanding of their shared data. Ontologies include data categorization schemes. Ontologies promote semantic and syntactic understanding of data. For example, taxonomies enhance discovery by providing a hierarchical means of searching for data while providing users and applications with additional insights about data assets by indicating their placement among other data assets.

Input: IM - Component Net-	Output: IM - Component Data	Control: Net-centric Info Governance - Air and Space
centric Metrics	Scheme(s)	Component; Info Management Plan (IMP) - Air and Space
		Component; DDMS

IM 1.3.1.2 - Maintain Component Thesauruses

DoD Net-Centric Data Strategy, 9 May 2003, pg. 15, para 3.4.1

The Component IMO establishes ontologies that best reflect the community understanding of their shared data. Ontologies include thesauruses. Ontologies promote semantic and syntactic understanding of data. Thesauruses identify related terms to assist translation services.

Input:	Output: IM - Component Thesauruses	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; DDMS
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IM 1.3.1.3 - Maintain Component Key Word Lists

DoD Net-Centric Data Strategy, 9 May 2003, pg. 15, para 3.4.1

The Component IMO establishes ontologies that best reflect the community understanding of their shared data. Ontologies include key word lists. Ontologies promote semantic and syntactic understanding of data.

Input:	Output: IM - Component Key Word List(s)	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; DDMS
IN 4 2 4 4 Define Common and Tours		Dep Mat Carting Data Charles of Mars 2000 and 45 man 2.4

IM 1.3.1.4 - Define Component Taxonomies

DoD Net-Centric Data Strategy, 9 May 2003, pg. 15, para 3.4.1

The Component IMO establishes ontologies that best reflect the community understanding of their shared data. Ontologies include taxonomies. Ontologies promote semantic and syntactic understanding of data. Taxonomies enhance discovery by providing a hierarchical means of searching for data while providing users and applications with additional insights about data assets by indicating their placement among other data assets.

Input:	Output: IM - Component	Control: Net-centric Info Governance - Air and Space
	Taxonomies	Component; Info Management Plan (IMP) - Air and Space Component; DDMS

IM 1.3.1.5 - Maintain Component Vocabularies

The Component IMO establishes ontologies that best reflect the community understanding of their shared data. Ontologies include vocabularies, which define terms used in describing data assets.

Input:	Output: IM - Component Vocabularies	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; DDMS
IM 1.3.1.6 - Compile Component Ontol	ogies	DoD Net-Centric Data Strategy, 9 May 2003, pg. 15, para 3.4.1

The Component IMO establishes ontologies that best reflect the community understanding of their shared data. Ontologies include data categorization schemes, thesauruses, vocabularies, key word lists, and taxonomies. The ontologies are compiled and added to the Component's Metadata Catalog.

Input: IM - Component Data Scheme(s); IM - Component Thesauruses; IM - Component Key Word List(s); IM - Component Taxonomies; IM - Component Vocabularies	Output: IM - Component Ontologies	Control:
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IM 1.3.2 - Identify Data Asset Requirements

Derived from DoD Net-Centric Data Strategy, 9 May 2003, para 3.1, pg. 11

The Component's IM function defines basic requirements to identify and process data assets. All data assets will have documented authoritative sources, well-defined security requirements (disclosure/access), shared space requirement, and associated descriptor needs.

Input: IM - Component Ontologies; Data Asset	Output: IM - Data Asset Requirements	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; DDMS
IM 1.3.2.1 - Identify Authoritative	Sources	Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg 16. para 3.5.2

C2 Warriors identify authoritative sources for key data assets in their domain. The Component will publicize their identified authoritative sources to the Enterprise, thus allowing users and applications to evaluate and understand the community- implied authority of data sources. The Component may have to resolve potentially conflicting sources and, where appropriate, coordinate with higher-level governance bodies to identify authoritative source(s).

Input: Data Asset; IM - Component Ontologies	Output: IM - Data Asset Authoritative Source(s)	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; DDMS
IM 1.3.2.2 - Identify Security Requireme	ents	Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 13, para 3.2.2.
The Component IM will establish sec data aggregation considerations. Fo unclassified assets. C2 warriors mut	curity requirements for each data a or example, an unclassified data as st also consider multinational acce	sset. This will include disclosure and access guidelines, as well as set may become classified when aggregated with other ss requirements.
Input: Data Asset; IM - Component Ontologies	Output: IM - Data Asset Security Requirement(s)	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; DDMS
IM 1.3.2.3 - Identify Shared Space Requ	uirements	This activity is not referenced
Shared spaces will act as repositorie spaces will provide storage and serv space allocation to the Component a	es where users and applications ca ring mechanisms. The Component and within the Component.	n submit, or post, data assets to the enterprise. The shared IM function establishes requirements to accommodate shared
Input: Data Asset; IM - Component Ontologies	Output: IM - Data Asset Shared Space Requirement	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; DDMS
IM 1.3.2.4 - Identify Descriptor Require	ments	Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 13, para 3.2.2, pg. 15, para 3.4.2-4.
The Component IM function specifie summary content, security, and form	s descriptor requirements for Comp nat descriptors.	ponent data assets. This includes information regarding resource,
Input: Data Asset; IM - Component Ontologies	Output: IM - Data Asset Descriptor Requirement(s)	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; DDMS
IM 1.3.2.5 - Compile Data Asset Require	ements	This activity is not referenced

The Component IM function produces a compilation of data asset requirements.

Requirement; IM - Data Asset Descriptor Requirement(s)

IM 1.3.3 - Associate Metadata with Data Asset

DoD Net-Centric Data Strategy, 9 May 2003, pg. 11, para 3.1.2

To facilitate discovery of data assets, users and applications will provide discovery metadata, in accordance with the DoD Discovery Metadata Standard (DDMS), for all data to be posted to shared spaces. The DDMS will provide a common set of structured attributes that support discovery of data assets using search tools. C2 Warriors determine the desired level of discovery for a data asset, e.g., discovery of a database or a record within a database, discovery of a document or a paragraph within a document. The initial focus of the DDMS is to aid in the discovery of data assets as a whole; hence, the discovery metadata in the DDMS will not always be required for individual records or elements. For example, the discovery metadata will always indicate the existence of a database containing certain kinds of information but may or may not identify the contents of specific database elements. The DDMS does not preclude the use of other metadata processes or standards.

Input: IM - Data Asset Requirements; IM - Component Data Standards; Data Asset	Output: IM - Data Asset with Metadata Associated	Control: DDMS
	• • • • •	

IM 1.3.3.1 - Apply Security Descriptor(s)

Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 16, para 3.5.1

The Security Descriptors elements of the DDMS allow security and privacy markings consistent with established standards where applicable. For information assurance (IA) and security, GES provides auditing tools that can track access, by individual user, of each data asset. GES may also provide access control to data assets based on security markings in the metadata.

Input: IM - Component Data Standards; IM - Data Asset Requirements; Data Asset	Output: IM - Data Asset with Security Descriptor(s)	Control: DDMS

IM 1.3.3.2 - Apply Resource Descriptor(s)

Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 16, para 3.5.1

The Resource Descriptors elements of the DDMS allow identification of the author, publisher, and sources contributing to the data, allowing users and applications to assess the derivation of the data (i.e., data pedigree). This metadata allows users and applications to select data from known sources. Reliable and quality sources will become more widely used, enhancing overall data quality throughout the Enterprise as more data sources become visible.

Input: IM - Component Data Standards; IM - Data Asset Requirements; Data Asset	Output: IM - Data Asset with Resource Descriptor(s)	Control: DDMS
IM 1.3.3.3 - Apply Summary Content De	escriptor(s)	Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 15, para 3.4.2
The summary content descriptors el Content metadata provides topics, k applications insight into the meaning for data assets that address specific	ement set of the DDMS is specific seywords, context, and other conter g and context of the data. Content r topics.	ally aimed at providing (content-related) details about data assets. nt-related information. Content metadata gives users and netadata provides a basis for search engines to perform searches
Input: IM - Component Data Standards; IM - Data Asset Requirements; Data Asset	Output: IM - Data Asset with Summary Content Descriptor(s)	Control: DDMS
IM 1.3.3.4 - Apply Format Descriptor(s)		Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 15, para 3.4.3
The format descriptors element set of format descriptors are useful when the optional information that describes the users and applications to narrow do a user who is able to view only Grap	of the DDMS is used to describe de rying to understand the physical m he extent of the asset, such as file wn information searches and to sel phic Interchange Format [GIF] imag	etails pertaining to the format of the associated data asset. The anifestation of an asset. In addition, the format descriptors contain size, bit rate, and dimensions. Format-related metadata allows lect products that meet their particular operating constraints (e.g., ges would not want to pull a (JPEG image).
Input: IM - Component Data Standards; IM - Data Asset Requirements; Data Asset	Output: IM - Data Asset with Format Descriptor(s)	Control: DDMS
IM 1.3.3.5 - Apply Extensible Layer		Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 15, para 3.4.4
To improve understanding, an exter This is represented as the extensible particular domain area and still be a	nsion of the discovery metadata sta e layer of the DDMS. With this exte ble to participate in Enterprise-wide	ndard is reserved for domain-specific, or COI-specific, metadata. ension layer, COIs will be able to provide context relevant to their e search and discovery. COIs will be required to register their COI-

particular domain area and still be able to participate in Enterprise-wide search and discovery. COIs will be required to register the specific content metadata requirements in the DoD Metadata Registry. These COI-specific metadata requirements may then be integrated into appropriate Enterprise and community services such as search and mediation.

Input: IM - Component Data Standards; IM - Data Asset Requirements: Data Asset	Output: IM - Data Asset with Extensible Layer	Control: DDMS
Requirements, Data Asset		

IM 1.3.3.6 - Compile Metadata Associations

Metadata treatment of the data asset is compiled and forms the basis for the input to the metadata catalog and registry.

Input: IM - Data Asset with Security Descriptor(s); IM - Data Asset with Resource Descriptor(s); IM - Data Asset with Summary Content Descriptor(s); IM - Data Asset with Format Descriptor(s); IM - Data Asset with Extensible Layer	Output: IM - Data Asset with Metadata Associated	Control:
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IM 1.3.4 - Post Asset to Shared Space

IN

DoD Net-Centric Data Strategy, 9 May 2003, pg. 11, para 3.1.1

Users and applications will migrate from maintaining private data (e.g., data kept within system specific storage) to making data available in community- and Enterprise-shared spaces (e.g., servers and services available on the Internet). These shared spaces will act as repositories where users and applications can submit, or post, data assets to the enterprise. The shared spaces will provide storage and serving mechanisms. Enterprise-shared spaces will be maintained, secured, and staged as necessary to support the Component's missions. Data that is posted to shared spaces will be advertised via the associated metadata and will be discoverable with enterprise search tools.

Input: IM - Data Asset with Metadata Associated	Output: IM - Posted Data Asset	Control: Info Management Plan (IMP) - Air and Space Component
1.3.5 - Register Metadata		Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 13, para 3.1.4

The DoD, Region and Joint Force Registries contain metadata related to data structures, models, dictionaries, and schemas. These registries give developers and architects visibility into methods to compose and encode data and to share usage across the Enterprise. Registration of Air & Space Component metadata is critical to achieve the data goals of interoperability and understanding by promoting semantic and structural understanding.

Input: IM - Data Asset with Metadata Associated	Output: Metadata Registration Request	Control: DDMS
IM 1.3.6 - Manage Component Metadata Catalog		Derived from DoD Net-Centric Data Strategy, 9 May 2003, pg. 12, para 3.1.3

Metadata catalogs will advertise the existence of shared data and will contain information about all data assets contained in the associated shared space (including databases, system output files, web pages, documents, and access services). Component metadata elements must be represented in the Component metadata catalog for any data asset posted to a shared space. The Air & Space Component establishes and maintains the Component's metadata catalog. This catalog is organized according to the Air & Space Component-defined ontologies.

The catalog is searchable by applications or through user-friendly, web-based interfaces. The web-based interfaces have a consistent look and feel and support posting of metadata to the catalog and data to the shared space. The catalog is searchable, either manually or automatically via agents, through application programming interfaces. It will adhere to Enterprise discovery interface standards to allow searches within a catalog or across catalogs.

Input: Metadata Registration Request; IM - Component Data Standards	Output: Metadata Catalog - Air and Space Component	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; DDMS; IM - Component Ontologies

IM 1.4 - Manage Net-centric Pictures

This activity is not referenced.

C2 Warriors build and maintain standardized, Air & Space Component, net-centric subscription pictures; these are the Common Relevant Operational Pictures (CROPs) focused on key functional areas of the Component that are of interest to the joint force. C2 Warriors process product requests to build new subscription products. They also monitor the status of all Component-subscribed CROPs.

Input: IM - New CROP Request; IM - Data Asset with Metadata Associated; Metadata Registration Request; CROP STATREP - STRATCOM; CROP STATREP - TRANSCOM; CROP STATREP - Global Weather	Output: CROP STATREP - Air and Space Component; Event/Indication Notification; CROP - Air and Space Component; CROP - ISR; CROP - Force/Resource; CROP - Airspace; CROP - SIAP; CROP - Air Mobility Support; CROP - Theater Weather; CROP - Communications and Network Status; CROP - Computer Network Operations; CROP - Space Support; CROP - ONA	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; IM - Component Data Standards; DDMS
IM 1.4.1 - Provide Air & Space Component Net-centric Pictures		Derived from Doctrinal Implications of the Standing Joint Force Headquarters (SJFHQ) Coordinating Draft, 20 April 2003 (JWFC Doctrine Pamphlet 3) and DoD Net-Centric Data Strategy, 9 May 2003

C2 Warriors manage the dissemination and quality assurance of standardized, Air Component, net-centric subscription products.

Input: IM IM - Data <i>A</i> Associated Registratio	- New CROP Request; Asset with Metadata I; Metadata n Request CR Su CR Nei Su	tput: CROP - Air and Space mponent; CROP - ISR; CROP - 'ce/Resource; CROP - Airspace; OP - SIAP; CROP - Air Mobility oport; CROP - Theater Weather; OP - Communications and twork Status; CROP - Computer twork Operations; CROP - Space oport; CROP - ONA	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component; DDMS
IM 1.4.1.1	- Process Component CRO	P Development Request	This activity is not referenced.
C2 W conne Input	arriors process request for C ectivity issues. If appropriate : IM - New CROP Request	ROP development. This entails ana , the Component IMO approves the Output: IM - New CROP Development Guidance	Ilyses of operational need, shared space requirements and request and provides guidance. Control: Net-centric Info Governance - Air and Space Component: Info Management Plan (IMP) - Air and Space
			Component
IM 1.4	4.1.1.1 - Analyze Operationa C2 Warriors analyze the CRC clarification or withdrawal.	al Requirement DP request for operational applicabil	<i>This activity is not referenced</i> ity. If little justification exists, the request is returned for further
I	I nput: IM - New CROP Request	Output: IM - New CROP Ops Analysis	Control: Info Management Plan (IMP) - Air and Space Component
IM 1.4 (1.1.1.2 - Estimate Shared S C2 Warriors analyze the impa data assets comprising the C	act of the new CROP on the current ROP, the anticipated users, and the	This activity is not referenced allocation of shared space. This requires an understanding of the amount of shared space available.
	I nput: IM - New CROP Request	Output: IM - New CROP Shared Space Analysis	Control:
IM 1.4 , ,	IM 1.4.1.1.3 - Estimate Connectivity Requirement Although primarily a communications function, C2 Warriors need t communications systems and links are required to provide and re-		<i>This activity is not referenced</i> to understand who will require the new CROP and what types of ceive it.
1	Input: IM - New CROP Request	Output: IM - New CROP Connectivity Analysis	Control:
IM 1.4	IM 1.4.1.1.4 - Approve Picture Development		This activity is not referenced

Based on justified operational need, an adequate amount of shared space and available communication systems and links, the Component IM will approve development of the new CROP. Disapprovals are forwarded to the requestor for reclama as required. The IMO provides CROP development guidance.

Input: IM - New CROP Ops	Output: IM - New CROP	Control: Net-centric Info Governance - Air and Space
Analysis; IM - New CROP	Development Guidance	Component
Shared Space Analysis; IM -		
New CROP Connectivity		
Analysis		

IM 1.4.1.2 - Develop Component CROP(s)

Input: IIM - Data Asset with	Output: IM - CROP Approval	Control: IM - New CROP Development Guidance; IM -
Metadata Associated: Metadata		Component Data Standards: DDMS: Info Management Plan
Registration Request		(IMP) - Air and Space Component
IM 1.4.1.2.1 - Subscribe to Require	ed Data	This activity is not referenced.
C2 Warriors analyze data asse	t requirements and establish subs	criptions to appropriate data assets.
Input: IM - Data Asset with	Output: IM - CROP Data	Control: IM - New CROP Development Guidance
Metadata Associated	Assets	
Metadata Registration	100010	
Request		
IM 1 4 1 2 2 - Format Dicture (Sch	2m2)	
INI 1.4.1.2.2 - Format Ficture (Sch	enna)	
C2 Warriors work with CROP r	equestor to build the picture, forma	atted to meet operational needs.
Input: IM - CROP Data	Output: IM - CROP Schema	Control
Assets	ouput: in ortor conema	
733013		
IM 1.4.1.2.3 - Access Shared Space	e	This activity is not referenced.
Once formatted the nicture is	aastad to Component Sharad Shar	co yet is not accessible at this time to the community
Once formatted, the picture is j	Sosted to Component Shared Spat	
Input: IM - CROP Data	Output: IM - CROP Prototype	Control:
Assets: IM - CROP Schema		
IM 1.4.1.2.4 - Validate CROP		This activity is not referenced.

C2 Warriors work with the requestor and experts from the ops community to ensure the proposed CROP meets operational needs. Security standards, to include access issues are addressed at this time. Once agreed, these standards are applied.

Input: IM - CROP Prototype; IM - Component Data Standards	Output: IM - CROP Validated	Control: DDMS; Info Management Plan (IMP) - Air and Space Component
IM 1.4.1.2.5 - Approve CROP		This activity is not referenced.
The new CROP is turned over CROP becomes accessible to	to the Component IMO who approv approved subscribers.	ves its release or returns it for further action. Once released, the
Input: IM - CROP Validated	Output: IM - CROP Approval	Control:
IM 1.4.1.3 - Produce Component CROF	PS	JFWC Doctrine Pamphlet 3 (Cord Draft), pg. 15.
C2 Warriors release CROPs to authorized subscribers. The CROPs list requirements. It is presumed the JFACC will want to focus on these particular sectors.		sted with this activity are a notional set based on common theater articular areas.
Input: IM - CROP Approval	Output: CROP - Air and Space Component; CROP - ISR; CROP - Force/Resource; CROP - Airspace; CROP - SIAP; CROP - Air Mobility Support; CROP - Theater Weather; CROP - Communications and Network Status; CROP - Computer Network Operations; CROP - Space Support; CROP - ONA	Control: Info Management Plan (IMP) - Air and Space Component

IM 1.4.2 - Monitor Net-centric Pictures

Derived from Doctrinal Implications of the Standing Joint Force Headquarters (SJFHQ) Coordinating Draft, 20 April 2003 (JWFC Doctrine Pamphlet 3) and DoD Net-Centric Data Strategy, 9 May 2003

C2 Warriors monitor Component CROPs as well as those subscribed by Component personnel. C2 Warriors produce a status report and notify applicable personnel when problems occur.

Input: CROP - Air and Space Component; CROP - ISR; CROP - Force/Resource; CROP - Airspace; CROP - SIAP; CROP - Air Mobility Support; CROP - Theater Weather; CROP - Communications and Network Status; CROP - Computer Network Operations; CROP - Space Support; CROP - ONA; CROP STATREP - STRATCOM; CROP STATREP - TRANSCOM; CROP STATREP - Global Weather	Output: CROP STATREP - Air and Space Component; Event/Indication Notification	Control: Net-centric Info Governance - Air and Space Component; Info Management Plan (IMP) - Air and Space Component
Weather		

IM 1.5 - Manage Component Information Assurance/Network Defense Operations

Providing the capability for the Air & Space Component to maintain the status of networks, preserve the integrity and availability of the networks, implement procedures to protect Component Networks and communications means, and provide products to inform the Computer Network Operations community on current Computer Network Defense activities for the Component.

Output: IM - INFOCON Notification;	Control: Info Management Plan (IMP) - Air and Space
IM - Continuity of Operations Plan	Component; Net-centric Info Governance - Air and Space
(COOP); IM - Critical Information	Component; IA Direction and Guidance; Communications Plan
Nodes; IM - IAV Compliance Report;	
IM - Communications/Networks	
STATREP; Event/Indication	
Notification; Indications and Warning;	
IM - Network Attack Impact	
Assessment	
	Dutput:IM - INFOCON Notification;M - Continuity of Operations PlanCOOP);IM - Critical InformationIodes;IM - IAV Compliance Report;M - Communications/NetworksSTATREP;Event/IndicationIotification;Indications and Warning;M - Network Attack ImpactInterest and the sense of

IM 1.5.1 - Manage Component INFOCON

JTF-IM, pg. V-8, para 9

With familiarity of INFOCON policy directives, CAOC C2 Warriors must develop management techniques that allow swift transition to varying levels of INFOCON, without jeopardizing their warfighting capability.

Input: INFOCON; IM - Network Attack Impact Assessment	Output: IM - INFOCON Notification; IM - Continuity of Operations Plan (COOP); IM - Critical Information Nodes	Control: IA Direction and Guidance; Net-centric Info Governance - Air and Space Component
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IM 1.5.1.1 - Identify Mission Critical, Support, & Admin Info Systems/Networks

JTF IM, pg. V-8, para 9a

Effective INFOCON management commences with C2 Warriors identifying critical information nodes within their infrastructure. The types of IA protective measures, techniques and procedures needed for a system shall be determined on both information security and mission criticality. CJCSI 6510.01C sets policy for the assignment of all DOD information systems to a mission category (mission critical, mission support, or administrative). Generally, higher levels of security are required for higher levels of system critically and information sensitivity.

Input:	Output: IM - Critical Information Nodes	Control: IA Direction and Guidance; Net-centric Info Governance - Air and Space Component
11512 Decignote Llear Groups		ITE IM pg V 8 para 0b

IM 1.5.1.2 - Designate User Groups

JIF-IM, pg. V-8, para 9b

C2 Warriors develop a prioritized information systems positions/users list. This list will identify users who require system access to perform mission essential duties on unclassified and classified networks. The list shall not be solely based on rank or pay grade criteria. Those personnel who are key information processors should be placed into an appropriate user group to support mission accomplishment. The IMO shall design user groups to limit access as much as feasible, and continue all operations with due regard to **OPSEC and INFOSEC.** Control:

Input: IM - Critical Information **Output:** IM - User Groups Nodes

IM 1.5.1.3 - Develop the Component COOP Input

JTF-IM, pg., V-9, para 9c

The IMO develops a Continuity of Operations Plan (COOP) based upon actual mission requirements and information system capabilities. As an integral part of the IMP, the COOP may include the following:

(a) List of critical information systems related to their respective mission.

(b) Authorized users list, distinguished by tier groups.

(c) Local INFOCON procedures.

(d) INFOCON quick reference matrix of critical systems.

(e) Operational impact assessment of mission.

(f) Reporting instructions.

Input: IM - User Groups; IM -	Output: IM - Continuity of	Control: IA Direction and Guidance; Net-centric Info
Network Attack Impact	Operations Plan (COOP)	Governance - Air and Space Component
Assessment		
Edd. Manage INFOCON Changes		OFNITAFIAD may OF mana A10 74

IM 1.5.1.4 - Manage INFOCON Changes

CENTAF IMP, pg. 85, para A12.7A

The CAOC IM Cell is responsible for notifying affected Air and Space Component units about INFOCON changes. Notific	cation should
include the following information:	

Date/time of report.

Current INFOCON.

Reason for declaration of this INFOCON.

Current/planned operation(s) or capabilities, units/organizations, networks, systems, applications, or data assessed to be impacted or at risk.

Recommended or SECDEF-directed actions.

References to relevant technical advisories, intelligence assessments, etc. POC contact information.

Input: IM - Continuity of Operations Plan (COOP); INFOCON	Output: IM - INFOCON Notification	Control: IA Direction and Guidance; Net-centric Info Governance - Air and Space Component
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IM 1.5.2 - Support Info Assurance Vulnerability Alert Program

CENTAF IMP, pg., 87

Input: Info Assurance Vulnerability Alert (IAVA): Info	Output: IM - IAV Compliance Report	Control: IA Direction and Guidance; Info Management Plan (IMP) - Air and Space Component
Assurance Vulnerability Bulletin		
Vulnerability Technical Advisory		

IM 1.5.2.1 - Acknowledge Receipt of IAV Notification

CENTAF IMP, pg. 88, para A12.7B

C2 Warriors acknowledge receipt of the Information Assurance Vulnerability Alert (IAVA), Information Assurance Vulnerability Bulletin (IAVB) or Information Assurance Vulnerability Technical Advisory.

Input: Info Assurance Vulnerability Alert (IAVA); Info Assurance Vulnerability Bulletin (IAVB); Info Assurance Vulnerability Technical Advisory; IM - Critical Information Nodes	Output: IM - IAV Notification Acknowledgement	Control:	
IM 1.5.2.2 - Manage Corrective Action	to IAV-Affected Systems	CENTAF IMP, pg. 88, para A12.7B	
C2 Warriors direct corrective action to comply with IAV notification.			
Input: IM - IAV Notification Acknowledgement	Output: IM - IAV Corrective Action	Control: IA Direction and Guidance; Info Management Plan (IMP) - Air and Space Component	

IM 1.5.2.3 - Verify IAV Corrective Action			CENTAF IMP, pg. 88, para A12.7B	
Input: IM - IAV Corrective Ac	ction	Output: IM - IAV Compliance: Wall Action Verification	Control: IA Direction and Guidance	
IM 1.5.2.4 - Report IAV Complian	се		CENTAF IMP, pg. 88, para A12.7B	
Compliance information shall of assets with waivers.	include	e, at a minimum, the number of as	sets affected, the number of assets in compliance, and the number	
Input: IM - IAV Corrective Ac Verification	ction	Output: IM - IAV Compliance Report	Control:	
IM 1.5.3 - Monitor Component Comm Links and Networks			Operational Architecture activities received from AFIWC, Derived from AFSPC Almanac and Air University article "Force Support - AFSCN	
Monitoring the current operational s	status	and availability of communications	s links and networks for the Air Component.	
Input: IM - IAV Compliance Report; CROP - Communications and Network Status; CROP - Computer Network Operations; IO Warnings	Outp Com STA Notif	out: IM - munications/Networks TREP; Event/Indication ication; Indications and Warning	Control: Communications Plan; Info Management Plan (IMP) - Air and Space Component	
IM 1.5.4 - Manage Network Attack Impact Assessment			JTF-IM, pg. V-9	
Input: IM - Communications/Networks STATREP; Event/Indication Notification; Indications and	Outp Asse	out: IM - Network Attack Impact	Control: IA Direction and Guidance; Info Management Plan (IMP) - Air and Space Component	

IM 1.5.4.1 - Identify Critical Information Systems Targeted

Warning; IM - Critical Information

Nodes

JTF-IM, pg. V-10, para 10c

C2 Warriors begin assessment process by examining the critical information systems that are or may be affected by an impending attack.

Input: IM - Critical Information Nodes; IM - Communications/Networks STATREP; Event/Indication Notification; Indications and Warning	Output: IM - Impact Assessment of Affected Systems	Control:		
IM 1.5.4.2 - List Missions/Operations A	ffected	JTF-IM, pg. V-10, para 10c		
C2 Warriors list missions or operation affected by this activity.	ons the component is currently sup	porting, or projected to support in the near future, that may be		
Input: IM - Impact Assessment of Affected Systems	Output: IM - Impact Assessment of Affected Missions/Operations	Control: Info Management Plan (IMP) - Air and Space Component		
IM 1.5.4.3 - Determine Technical Impac	t	JTF-IM, pg. V-10, para 10c		
For each information system targeted, determine the technical impact, i.e., to what degree are confidentiality, integrity, availability, authentication, and non-repudiation affected? What critical applications and databases are impacted? Determine how the technical impact of the malicious activity affects the unit's ability to execute its mission. Determine how the impact of the unit's ability to function affects support to current/projected operations. If no specific operations are ongoing or projected, make a determination of how general capability/readiness is affected.				
Affected Missions/Operations	Assessment			
IM 1.5.4.4 - Estimate Time Resources t	o Restore Functionality	JTF-IM, pg. V-10, para 10c		
For the technical impacts identified, interim workarounds.	C2 Warriors estimate the time and	resources required to restore functionality. They identify any		
Input: IM - Technical Impact Assessment	Output: IM - Restoration Assessment	Control:		
IM 1.5.4.5 - Compile Impact Assessment		This activity is not referenced.		
C2 Warriors build and submit the ne	etwork attack Impact Assessment.			

Input: IM - Impact Assessment of	Output: IM - Network Attack	Control: IA Direction and Guidance
Affected Systems; IM - Impact	Impact Assessment	
Assessment of Affected		
Missions/Operations; IM -		
Technical Impact Assessment; IM		
- Restoration Assessment		

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