

The Dawn of Enterprise Architecture in the Department of the Air Force

Jeffrey W. Eggers
Air Force ISR Chief Architect
Defense Intelligence Senior Leader
UAF Summit 2024
March 20, 2024

VISION

Optimize our force design and organizational structures

Ensure integration across the force at both the mission and technical levels

Develop capabilities cohesively across the mission areas

Approach

Develop all future requirements and capabilities using UAF and SysML Models

Develop an enterprise-level architecture framework

Develop a common government architecture repository

Levels of Architecture

Enterprise

Mission, Organization, Force Design



Functions, Requirements, Investments

System

Detailed Design of Fielding Systems







Challenges

Expense

Senior Sponsorship

Legacy Processes

Herding the Cats

OAG UNIFIED ARCHITECTURE FRAMEWORK 300	Motivation Mv	Taxonomy Tx	Structure Sr	Connectivity Cn	Processes Pr	States St	Sequences Sq	Information If	Parameters Pm	Constraints Ct	Roadmap	Traceability Tr
Architecture Management Am	Architecture Principles Am-Mv	Architecture Extensions Am-Tx	Architecture Views Am-Sr	Architectural References Am-Cn	Architecture Development Method Am-Pr	-	-	Dictionary Am-If	Architecture Parameters Am-Pm	Architecture Constraints Am-Ct	Architecture Roadmap Am-Rm	Architecture Traceab [*]
Summary & Overview Sm-Ov												
Strategic St	Strategic Motivation St-Mv	Strategic Taxonomy St-Tx	Strategic Structure St-Sr	Strategic Connectivity St-Cn	Strategic Processes St-Pr	Strategic States St-St	-	Strategic Information St-If		Strategic Constraints St-Ct	Strategic Roadmaps: Deployment, Phasing St-Rm-D, -P	Strate Traceability St-Tr
		Ор-тх	Op-Si	Vor for	Operational Processes Op-Pr	Operational States Op-St	Operational Sequences Op-Sq	Operational		Operational Constraints Op-Ct	-	Operational Tracea sility Op-Tr
Servic S Sv		D [svic] (eade sv-sr	CSices Collectivity Sv-Cn	Services Processes Sv-Pr	Services States Sv-St	Services Sequences Sv-Sq	Information Model Op-If	Environment En-Pm	Services Constraints Sv-Ct	Services Roadmap Sv-Rm	Services Traceability Sv-Tr
Personnel Ps		Personnel Taxonomy Ps-Tx	Personnel Structure Ps-Sr	Personnel Connectivity Ps-Cn	Personnel Processes Ps-Pr	Personnel States Ps-St	Personnel Sequences Ps-Sq		and Measurements Me-Pm	Competence, Drivers, Performance Ps-Ct-C, -D, -P	Availability, Evolution, Forecast PS-Rm-A,-E,-F	Personriel Traceability Ps-Tr
Resources Rs		Resources Taxonomy Rs-Tx	Resources Structure Rs-Sr	Resources Connectivity Rs-Cn	Resources Processes Rs-Pr	Resources States Rs-St	Resources Sequences Rs-Sq	Resources Information Model Rs-If	and Risks	Resources Constraints Rs-Ct	Resources Roadmaps: Evolution, Forecast Rs-Rm-E, -F	Resources Traceabinty Rs-Tr
Security Sc	Security Controls Sc-Mv	Security Taxonomy Sc-Tx	Security Structure Sc-Sr	Security Connectivity Sc-Cn	Security Processes Sc-Pr	-	-		Rk-Pm	Security Constraints Sc-Ct	-	Security Traceability Sc-Tr
Projects Pj	-	Projects Taxonomy Pj-Tx	Projects Structure Pj-Sr	Projects Connectivity Pj-Cn	Projects Processes Pj-Pr	-	-	-		-	Projects Roadmap Pj-Rm	Projects Traceability Pj-Tr
Standards Sd	-	Standards Taxonomy Sd-Tx	Standards Structure Sd-Sr	-	-	-	-	-		-	Standards Roadmap Sd-Rm	Standards Traceability Sd-7r

Senior Leader View

ISR-T Internal Roles

- Collection Operations
- Collection Orchestration
- All-source Exploitation
- Problem-Centric Analysis
- Threat Training

New Warfighting Concepts

- Joint Warfighting Concept
- AF Future Operating Concept
- Artificial Intelligence, Automation
- Problem Centric Analysis

AF ISR-T Operational Roles

- Battlespace Characterization
- Collection Operations
- Targeting
- Intelligence Mission Data
- Intelligence Support to Acquisition

Future ISR-T Operational Roles

- Operations Planning
- Battlespace Characterization
- Targeting
- Direct Mission Support
- Threat Characterization
- Acquisition Intelligence

ISR-T Strategic Development Goals

- Global Disposition of Forces
- Multi-Agency Sensing Orchestration
- Accelerated Targeting
- Digital Information Environment

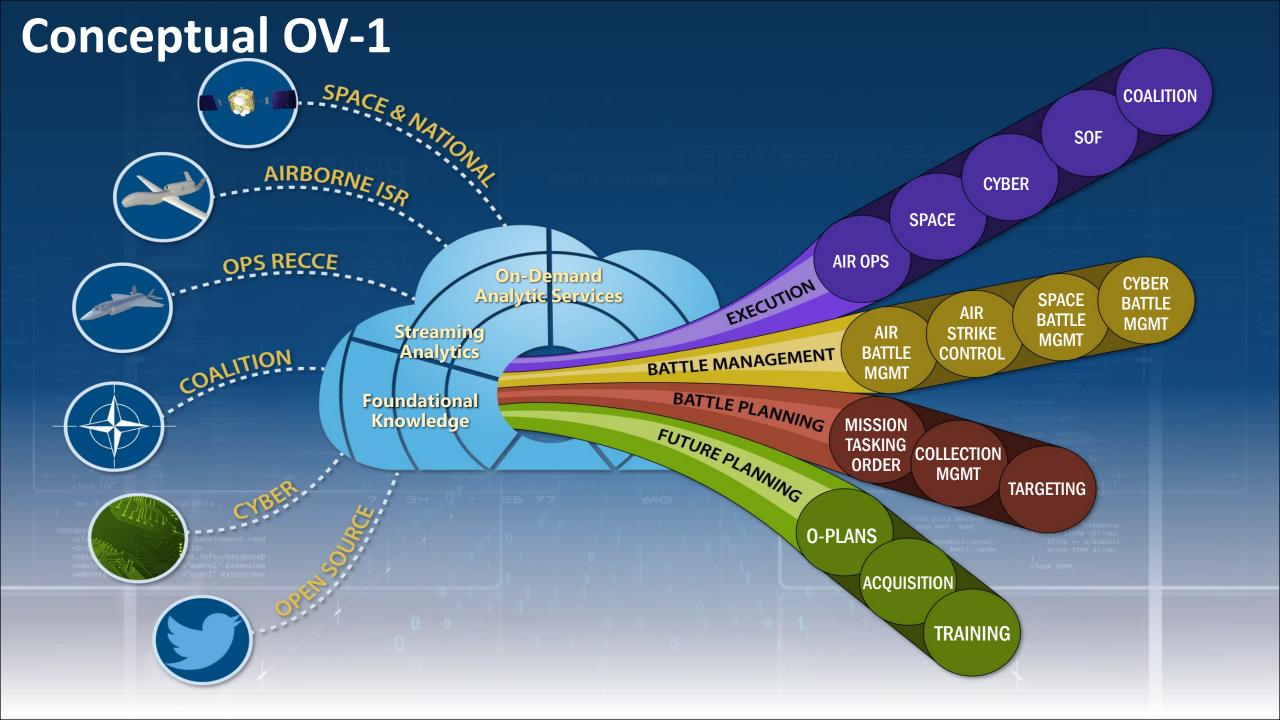
Intelligence Inputs to Capability Development

- Threat Forecasts
- ISR-T Support Needs
- ISR-T Architecture Compatibility

Capability Development Planning

- Operational Imperatives
- Funded ISR-T Programs
- ISR-T POM Initiatives
- Intel Community Requirements
- AF Requirements

Drivers
Goals
Plans



Current Effort: Collaborative Architecture Working Group

Unify ongoing requirements modeling efforts

Stand up federated architecture repository

Establish model framework and governance

Model Air Force ISR development strategy

How You Can Help

Develop views focused on leadership decision making

Model to support professional analysis and simulation

Develop standardized analysis products

Listen...agree...come together