DISDI Panels at ESRI FedUC - 10 Jan 07 - Agenda

8:30 - 8:35 - Col Hal Tinsley - DISDI Overview and opening remarks

8:35 – 9:40 - DISDI Strategic Direction - The DISDI executive team will provide an overview of the strategic direction for the coming year with a focus on standards, data sharing, and common goals for the defense installation and environments community. This panel will be facilitated by Col. Hal Tinsley, DISDI executive manager and special assistant for geospatial information policy.

9:40 – 10:00 – SDSFIE Update – Way forward in the re-engineering of the DoD Spatial Data Standard

10:00 - 10:30 – Break

10:30 - 10:45 -- TEC IO - Overview of imagery acquisition service.

10:45 - 11:45 - DISDI Group Panel - Representatives from each of the services will participate in this panel discussion on topics and issues on the use of GIS for installation and environmental management. Col. Hal Tinsley, DISDI executive manager and special assistant for geospatial information policy, will facilitate this panel.

11:45 - 12:45 – Lunch

DISDI Community of Interest

12:45 – 13:00 - COI Kickoff by Col Tinsley

13:00 - 14:00 - Re-defining the DISDI COI
Presentation of the DoD CIO(NII) Community of Interest organizational template to facilitate an open discussion.

The Defense Installation Spatial Data Infrastructure:
2006 and Beyond

Colonel Hal Tinsley, USAF

DISDI Executive Manager

ODUSD I&E (Business Enterprise Integration)

January 10, 2007

DISDI Overview:
Agenda

- Introduction to DISDI

- DISDI Governance

- DISDI Policy Agenda

- Supporting DoD Missions – RPI, EL, Data Sharing

- DISDI Architecture – Global Information Grid Integration

- Standards Alignment & Quality Assurance

- SDSFIE Update – Re-engineering the Standard

    → BREAK: 1000-1030 → → → Imagery Stewardship – TEC IO

What is the Defense Installation Spatial Data Infrastructure (DISDI)?

"**A DoD mission capability comprised of those people, policies, and practices necessary to acquire, steward, and share installation, environmental, and range geospatial data assets for defense, federal, and national goals"**
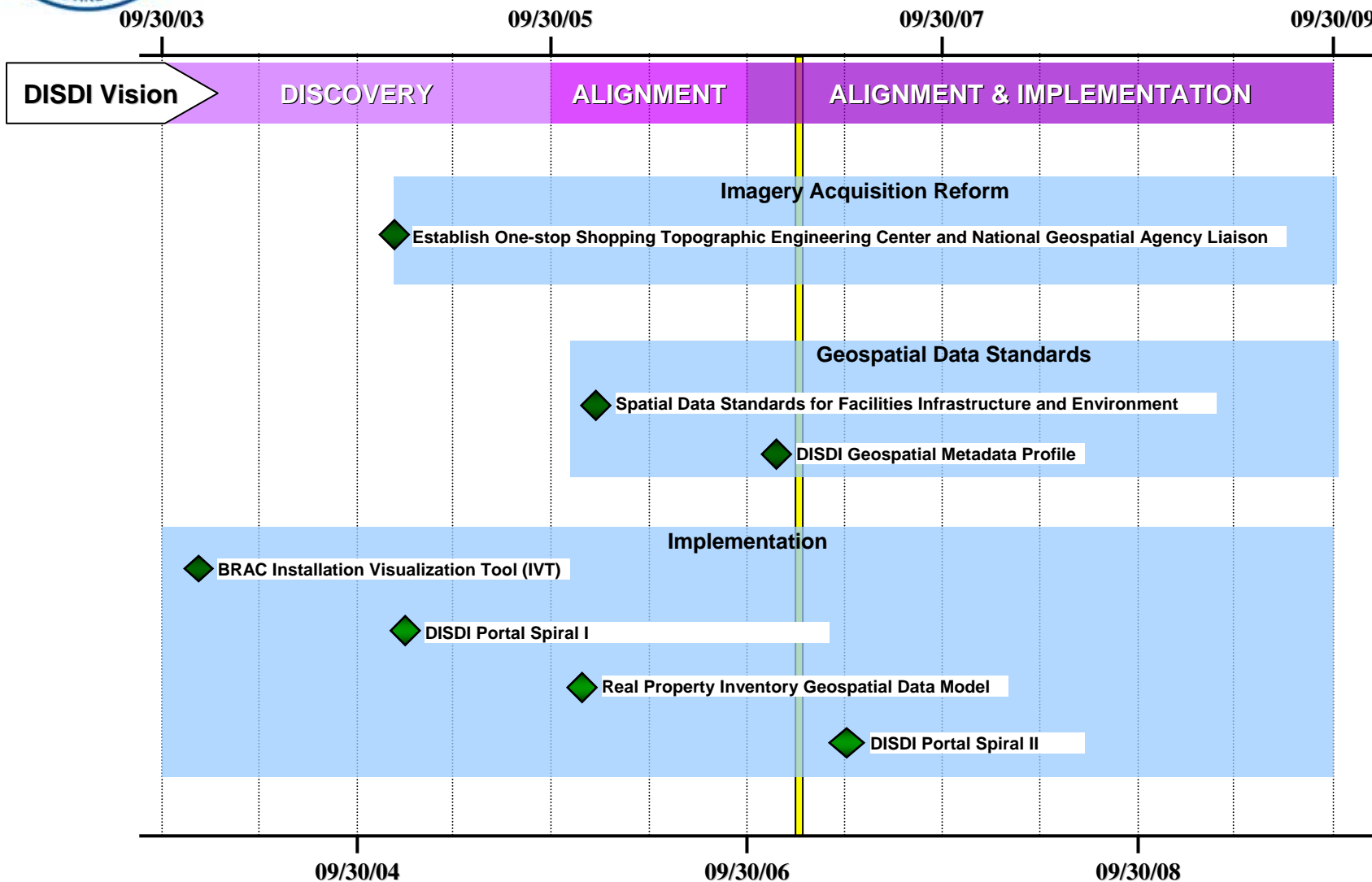
DISDI Key Milestones & Objectives

- **Governance, Policy, & Guidance**
  - Align DISDI Program within the National System for Geospatial Intelligence (NSG)
  - NGA Partnership – Geospatial-Intelligence Working Group (GWG)
  - Clarify Distinctions between Business GI&S, GEOINT
  - Quality Assurance for Mapping

- **Standards**
  - Support for Enhanced Geospatial Data Catalogs and Content
  - "Value-add" to NGA Capabilities via Data Alignment
  - Enhanced Metadata to Synchronize with the DoD Net-Centric Enterprise Strategy Goals

- **Service Architecture**
  - Mapping Portal to Leverage Component Source Data

- **Inventory**
  - Portfolio Management, Tracking, & Accountability

- **Real Property & Installation Lifecycle Management (RP&ILM) Support**
  - Real Property Inventory & Environmental Liability Mapping
  - Support a Transformational Process for Sustaining and Enhancing the SDSFIE

Defense Installation Spatial Data Infrastructure (DISDI) – Vision and Milestones
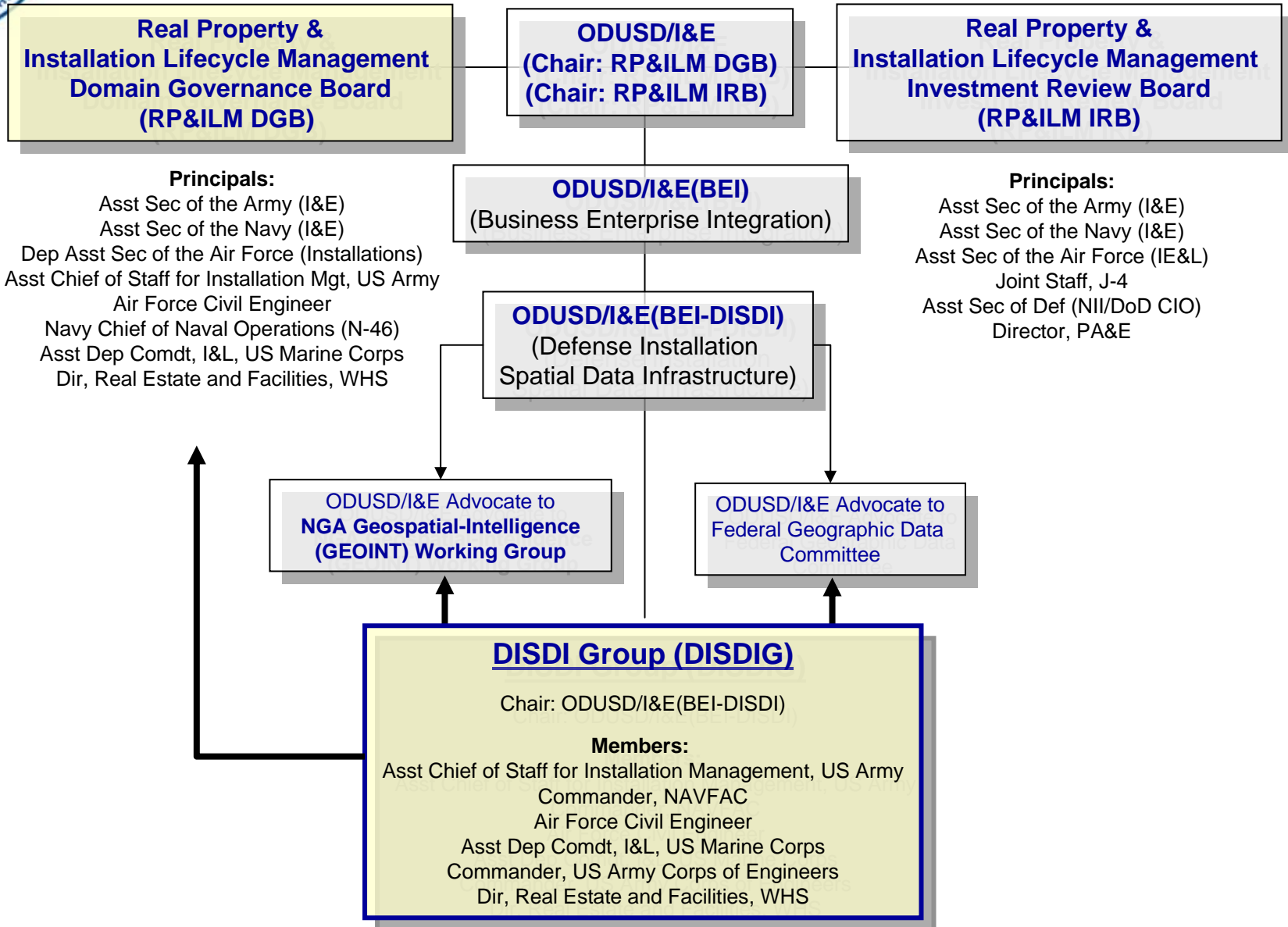
09/30/03 · **09/30/05** · **09/30/07** · **09/30/09**

DISDI Vision

DISCOVERY · **ALIGNMENT** · **ALIGNMENT & IMPLEMENTATION**

Imagery Acquisition Reform

◆ Establish One-stop Shopping Topographic Engineering Center and National Geospatial Agency Liaison

Geospatial Data Standards

◆ Spatial Data Standards for Facilities Infrastructure and Environment

◆ DISDI Geospatial Metadata Profile

Implementation

◆ BRAC Installation Visualization Tool (IVT)

◆ DISDI Portal Spiral I

◆ Real Property Inventory Geospatial Data Model

◆ DISDI Portal Spiral II

09/30/04 · **09/30/06** · **09/30/08**

6

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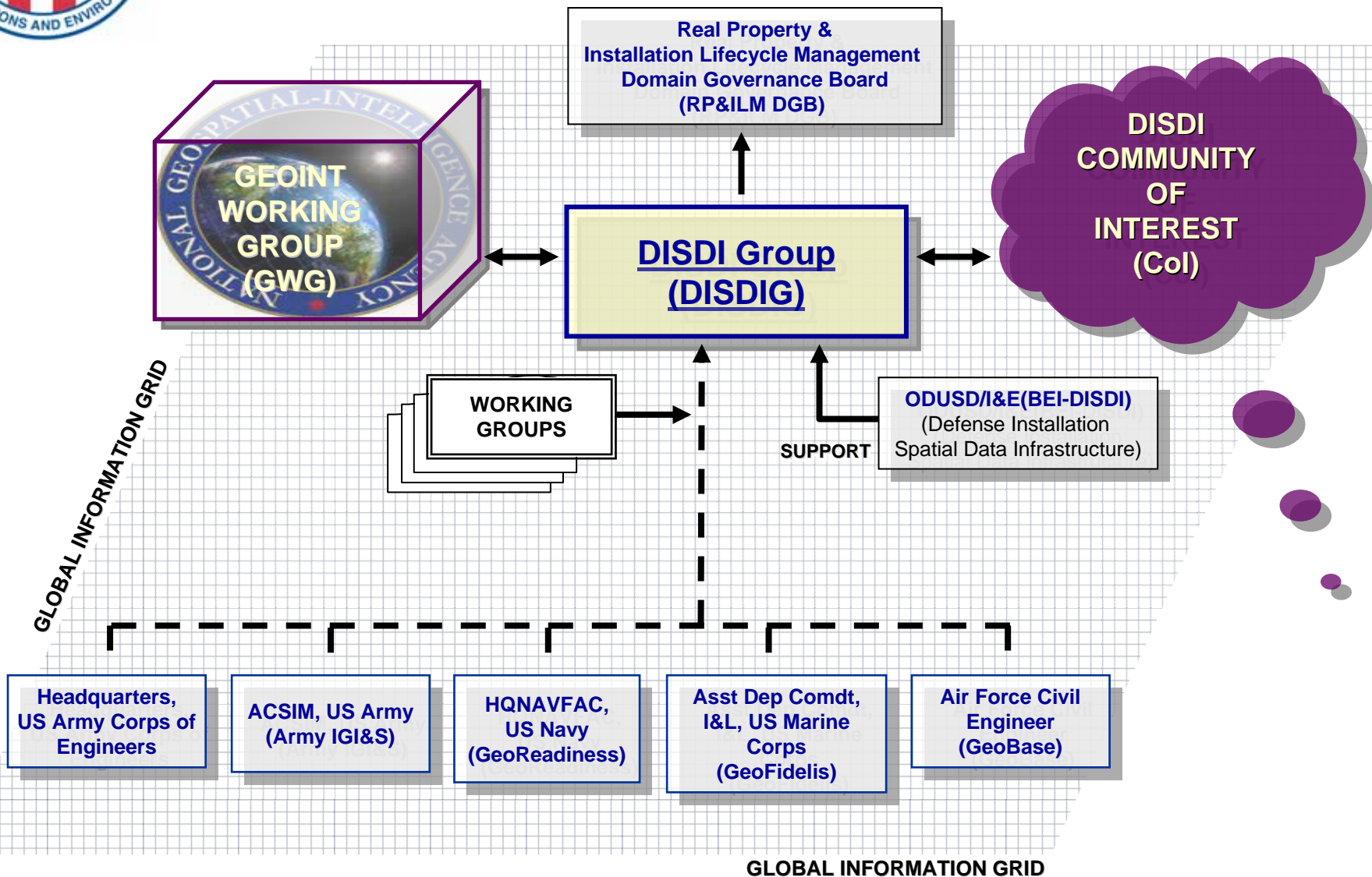 → BREAK: 1000-1030 → → → Imagery Stewardship – TEC IO

DISDI Governance:
Top Level

**Real Property &
Installation Lifecycle Management
Domain Governance Board
(RP&ILM DGB)**

**ODUSD/I&E
(Chair: RP&ILM DGB)
(Chair: RP&ILM IRB)**

**Real Property &
Installation Lifecycle Management
Investment Review Board
(RP&ILM IRB)**

Principals:
Asst Sec of the Army (I&E)
Asst Sec of the Navy (I&E)
Dep Asst Sec of the Air Force (Installations)
Asst Chief of Staff for Installation Mgt, US Army
Air Force Civil Engineer
Navy Chief of Naval Operations (N-46)
Asst Dep Comdt, I&L, US Marine Corps
Dir, Real Estate and Facilities, WHS

ODUSD/I&E(BEI)
(Business Enterprise Integration)

Principals:
Asst Sec of the Army (I&E)
Asst Sec of the Navy (I&E)
Asst Sec of the Air Force (IE&L)
Joint Staff, J-4
Asst Sec of Def (NII/DoD CIO)
Director, PA&E

ODUSD/I&E(BEI-DISDI)
(Defense Installation
Spatial Data Infrastructure)

ODUSD/I&E Advocate to
**NGA Geospatial-Intelligence
(GEOINT) Working Group**

ODUSD/I&E Advocate to
Federal Geographic Data
Committee

DISDI Group (DISDIG)

Chair: ODUSD/I&E(BEI-DISDI)

Members:
Asst Chief of Staff for Installation Management, US Army
Commander, NAVFAC
Air Force Civil Engineer
Asst Dep Comdt, I&L, US Marine Corps
Commander, US Army Corps of Engineers
Dir, Real Estate and Facilities, WHS

8

DISDI Governance and the GIG

Real Property & Installation Lifecycle Management Domain Governance Board (RP&ILM DGB)

GEOINT WORKING GROUP (GWG)

DISDI Group (DISDIG)

DISDI COMMUNITY OF INTEREST (CoI)

WORKING GROUPS

ODUSD/I&E(BEI-DISDI) (Defense Installation Spatial Data Infrastructure)

SUPPORT

GLOBAL INFORMATION GRID

| Headquarters, US Army Corps of Engineers | ACSIM, US Army (Army IGI&S) | HQNAVFAC, US Navy (GeoReadiness) | Asst Dep Comdt, I&L, US Marine Corps (GeoFidelis) | Air Force Civil Engineer (GeoBase) |

GLOBAL INFORMATION GRID

DISDI Staff Alignment for Implementing Business Transformation

Colonel Hal Tinsley (USAF)

- DISDI Resource Sustainment
- DISDI Information Security
- DISDI Policy & Guidance
- Federal Accountability

Dave LaBranche (CTR)

- RPI/Installations Mission Integration
- ESOH Mission Integration
- Range Sustainment Integration
- Data Sharing (Cross-Service / Federal)
- Partnership Coordinator

John Kochanowski (CTR)

- Data Standards Integration Strategy (NSG-Federal-DoD)
- Metadata Standards Strategy (NSG-Federal-DoD)
- DISDI Geospatial Systems Compliance with BEA

Sustainment

Mission Assurance

DISDI

Quality Assurance
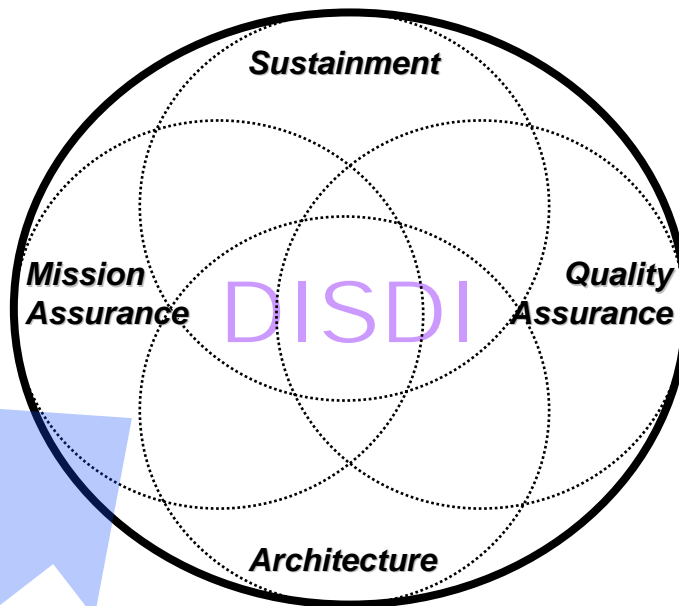
Architecture

Acquisition Assurance - Imagery

Patrick Easton (CTR)
Amy Roth (CTR)

Costi Tudan (CTR)

- DISDI Architecture
  - BEA Integration
  - FEA – Geospatial Profile
  - NGA Palanterra/Project Homeland
- DISDI Portal
- DISDI Information Assurance

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    → BREAK: 1000-1030 → → → Imagery Stewardship – TEC IO

DISDI Policy Alignment and Guidance Objectives

FY06 Goals Met, FY07 Goals Remaining

Objective: Align the DISDI Staff to Plan Business Transformation

    Strategy: Optimize the DISDI Staff to focus on architecture, quality, acquisition, and mission integration.

Complete – FY06

Objective: Align the DISDI Program to Coordinate and Implement Business Transformation
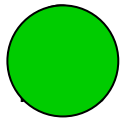
    Strategy: Charter a formal DISDI working group under the BGC and IRB to secure strategic consensus across the Services

Complete – FY07

Objective: Align the DISDI Program Within the Federal Geographic Data Committee

    Strategy: Modify the Federal Geographic Data Committee charter to reflect ODUSD/I&E as a core member (DoD business mission), joining NGA and USACE-Civil Works

Complete – FY07

Objective: Align the DISDI Program Within the National System for Geospatial Intelligence
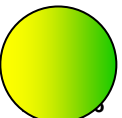
    Strategy: Partner with NGA/CIO in formally revising DODD 5105.60 to delegate Business Mission Area GI&S to OUSD/AT&L

In Progress – FY07

Objective: Align the DISDI Program to Leverage USACE/ERDC Talent Pools

    Strategy: Partner with the Components and the USACE Cold Regions Research Laboratory, the Topographic Engineer Center, and the Information Technology Laboratory to secure quality architecture, acquisition and data standards

Complete – FY06

DoDD 5105.60 (revised): NIMA Becomes NGA

• **The NGA shall provide timely, relevant, and accurate geospatial intelligence (GEOINT) in support of the national security objectives of the United States**, and shall provide the DoD, Intelligence Community, and other Federal departments and agencies with GEOINT needed to meet national intelligence requirements…provide combat support to the Armed Forces of the United States, provide for safety of navigation, and other activities that may be prescribed by the President, the SECDEF, or the DNI. **The NGA shall function within the following broad areas:**

- • GEOINT Data, Products, Information and Services.

- • Education and Training Services.

- • National System for Geospatial Intelligence (NSG) Operations.

- • Procedures and Standards.

- • GEOINT Systems.

- • Information Assurance (IA).

- • NSG Functional Management.

- • New Missions as Assigned.

DoD Directive 5105.60 (revised)
Defining Complementary Roles for GEOINT and Installation Geospatial Information & Services

INSTALLATION GI&S

Unclassified Installation Imagery → Installation Situational Awareness ← Installation Geospatial Information

GEOINT

Imagery | Imagery Intelligence | Geospatial Information

Geospatial Intelligence

Intelligence and Warfighting Domains

14
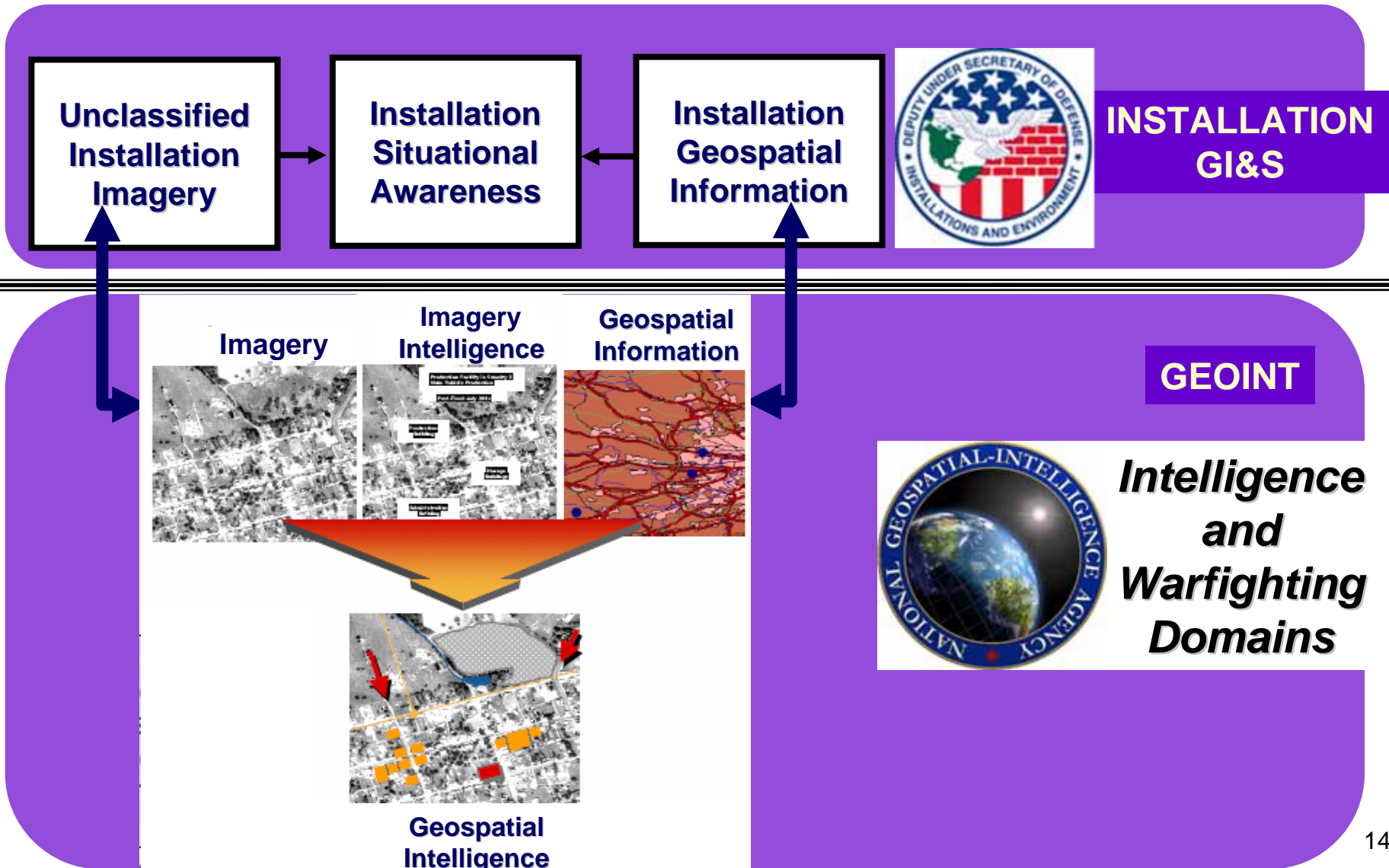
Organizing DoD Precedents for New DISDI Policy

- Executive Order 12906, "Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure", April 11, 1994
- DoD Directive 8000.1, "Management of DoD Information Resources and Information Technology," February 27, 2002
- DoD Directive 5105.60, "National Imagery and Mapping Agency (NIMA)", October 11, 1996
- DoD Directive 8320.2, "Data Sharing in a Net-Centric Department of Defense", 2 December 2004
- DOD Directive 811
- DoD Instruction 52
- Executive Order 1
  Requiring Protecti
- DoD Directive 503
  Imagery or Geospa
- DoD Directive 302
- DoD Directive 520
- DoD Directive 514
  Chief Information (
- DoD 5200.1-R, "Inf
- DoD Directive 520
- DoD Directive, "D
- DoD 5400.7-R, "D
- DoD Directive 850
- CJCSI 3901.01B, "
- CJCSM 3150.15B,
- DoD Directive 302
- DoD Directive 850..., "Information Assurance (IA)", October 24, 2002

Department of Defense
INSTRUCTION

NUMBER

SUBJECT: Management of DoD Installations & Environment Spatial Information Resources

References: (a) Executive Order 12906, "Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure", April 11, 1994
(b) DoD Directive 8000.1, "Management of DoD Information Resources and Information Technology," February 27, 2002
(c) DoD Directive 5105.60, "National Imagery and Mapping Agency (NIMA)", October 11, 1996
(d) DoD Directive 8320.2, "Data Sharing in a Net-Centric Department of Defense", 2 December 2004
(e) through (w), see enclosure 1

Potential Topics for
DISDI Policy and/or Instruction

- **Organizational roles and responsibilities**

- **Interagency data sharing protocols**

- **Reporting requirements (DoD, Federal)**

- **Portfolio management requirements**

- **Data requirements**
  - "Common installation picture"
  - Based on enterprise (DoD-wide) requirements

- **Technical requirements**
  - Standards alignment
  - Architectural alignment

- **Information Assurance (IA) and Information Security (INFOSEC) requirements**

The Defense Installation Spatial
Data Infrastructure (DISDI) Group

Questions?

DISDI Overview:
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    → BREAK: 1000-1030 → → → Imagery Stewardship – TEC IO

DISDI Mission Assurance

Implementing DISDI Capabilities, Enhancing Mission Execution

Mr. David LaBranche, P.E.
ODUSD I&E (BEI)
10 January 2007

Agenda

- What is Mission Assurance?

- Aligning DISDI Resources with DoD Business Mission Areas

- Goals & Status of ODUSD(I&E) Geospatial Mapping Pilot Projects to Support Real Property Inventory (RPI) and Environmental Liabilities Reconciliation (total value $5.5M)

- DISDI Data Sharing – Status & Trends

DISDI Mission Assurance

- **Objective:** Support OSD Staff and Components' implementation of OMB Circular A-16, DoDD 5105.60, and DISDI goals and objectives; *assure business process reengineering tasks to implement visualization and mapping capabilities in I&E are coordinated with the Components and aligned with the DoD Business Enterprise Architecture (BEA).*

- **Mission Assurance Goals:**

Dimension	*Goal*
Acquisition	"Acquire Once… Share Many"
Architecture	"One Enterprise…One Architecture"
Information	"Maximize Leverage… Minimize Risk"
Quality	"Standards-Based Stewardship"
Sustainment	"From Awareness to Adoption"

focus

Functional Alignment - not Technical Alignment

The "I and E" of DoD

DUSD
(Installations & Environment)
Mr. Philip W. Grone
703-695-2880

Integrated Management Support

Office of Economic Adjustment
Mr. Patrick J. O'Brien
703-604-6020

ADUSD (Installations)
Mr. Chuck Williams
703-571-9066

ADUSD (Environment, Safety & Occupational Health)
Mr. Alex Beehler
703-571-9066

Base Realignment & Closure

Business Enterprise Integration

Environmental Management

Environmental Readiness & Safety

Housing & Competitive Sourcing

Installations Requirements & Management

Armed Forces Pest Management Board

Defense Explosives Safety Board

Special Assistant for Emerging Contaminants

The Facilities Assessment Database (FAD)

22

DoD Business Mission Areas of Interest

SDSFIE v2.5

Auditory
Boundary
Buildings
Cadastre
Climate
Common
Communications
Cultural
Demographics
Ecology
Environmental Hazards
Fauna
Flora
Future Projects
Geodetic
Geology
Hydrography
Improvement
Land Status
Landform
Military Operations
Olfactory
Soil
Transportation
Utilities
Visual

Authoritative Sources for Enhancing the SDSFIE

In progress

Business Transformation Drivers:

Real Property Inventory

Environmental Liabilities Recognition, Valuation, and Reporting Requirements

Hazardous Materials Process Controls and Information Management Requirements

Explosives Safety Management Requirements

BEA 4.0

Range Sustainment

Natural Resource Managment

Emerging Contaminants

Historic Preservation

Munitions Response

DISDI Support for
DoD Real Property Inventory (RPI)

- **Goal: Formal registry of accurate real property data, including site locations**

- **Site Registry**
  - Authoritative, non-spatial repository of all DoD "sites"

- **Mapping Site locations (legal boundaries) is a key component of the RPI**
  - Based on Audited Tract Maps or land descriptions from acquisition deeds, lease agreements, SOFA agreements, etc.
  - Entered using Coordinate Geometry (COGO) using legal (parcel) land descriptions
  - Prototyping at ~70 installations

- **Relevance to DoD Installations**
  - New boundary layer (CIP or MDS)
  - Changes to the SDSFIE
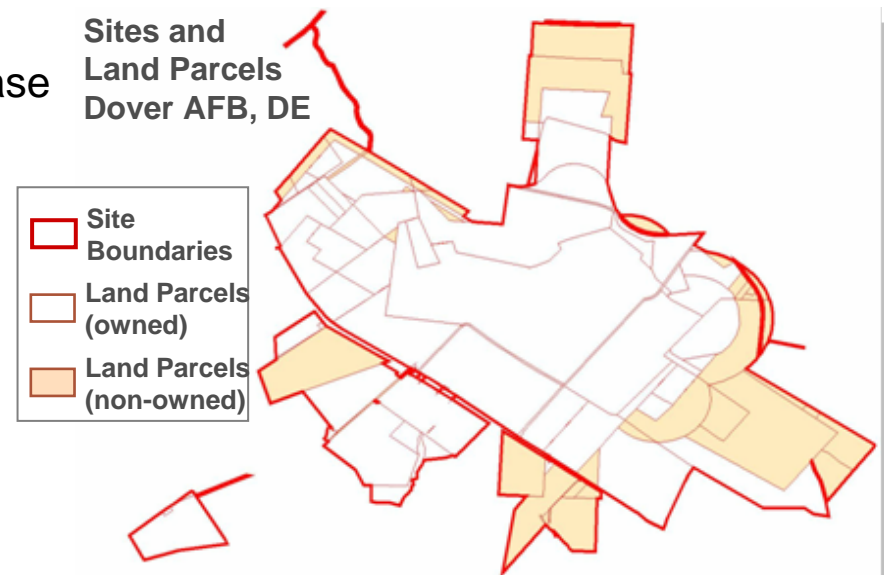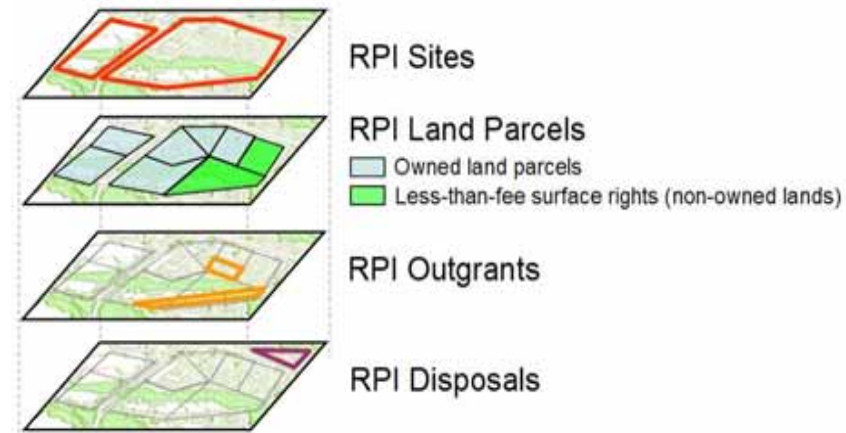
RPI Sites

RPI Land Parcels
- Owned land parcels
- Less-than-fee surface rights (non-owned lands)

RPI Outgrants

RPI Disposals

Sites and Land Parcels Dover AFB, DE

- Site Boundaries
- Land Parcels (owned)
- Land Parcels (non-owned)

Why Are Accurate DoD Boundaries Needed?
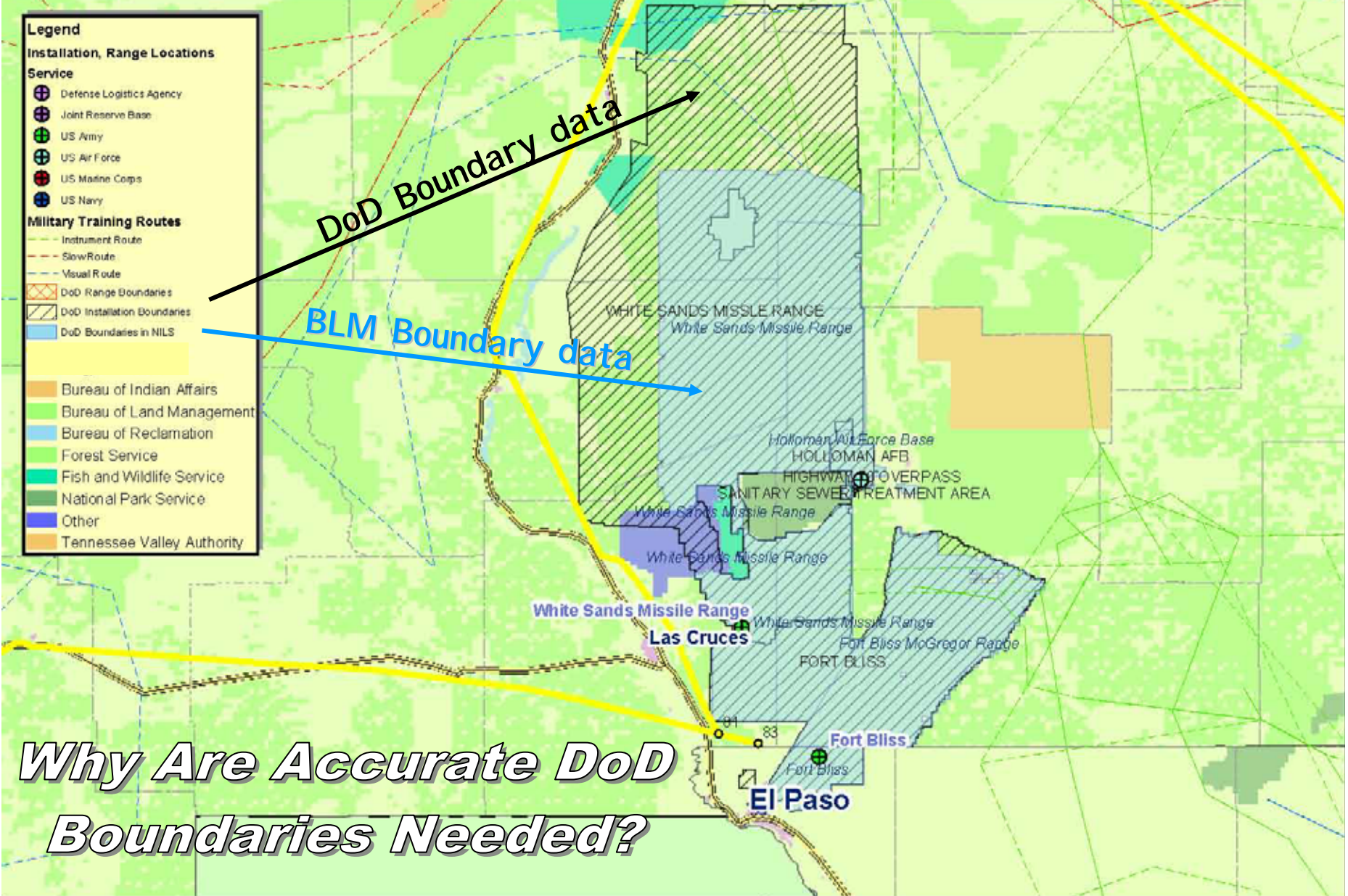
DoD Installations & Ranges - DISDI Boundary Data (2004) versus DoD Lands as Depicted on the National Map (USGS, 2005)

EL Mapping & Reconciliation Pilot

Non-DERP Sites

DERP Sites

RPI Site & Parcels
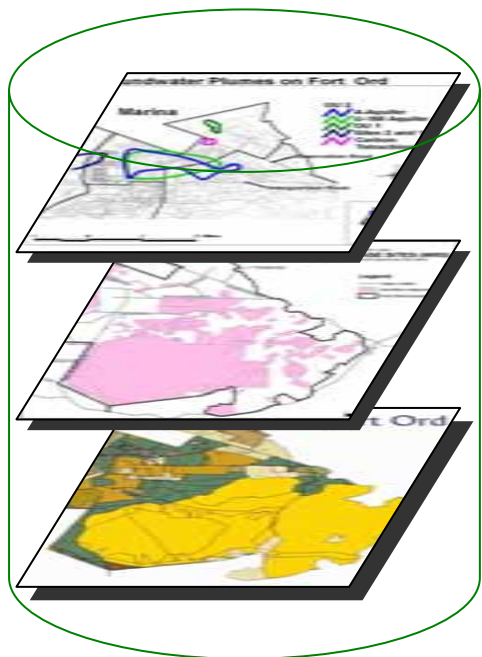
ENVIRONMENTAL LIABILITIES

Objective: Develop a department-wide Environmental Liabilities reconciliation process and standards to enable the Components to **demonstrate completeness of the EL site records** at each installation.

Approach: The pilot will establish and test the technical approach and work flow for the **acquisition of EL geospatial data and reconciliation of EL sites to one or more real property assets** (RPA), i.e. land parcels

26

What is an Environmental Liability?

- **Environmental Liabilities (EL)**
  - A Sub-set or Type of "ESOH Interest Area" as Defined in BEA 4.0

  "An environmental liability is a probable and measurable future outflow or expenditure of resources that exist as of the financial reporting date for environmental cleanup costs resulting from past transactions or events."

- **EL Site Categories Are Defined in Guidance**
  - Financial Management Regulation (FMR) Volume 4, Chapter 13
  - DUSD(I&E) Management Guidance for the Defense Environmental Restoration Program (DERP)
  - DUSD(I&E) Guidance for Recognizing, Measuring, and Reporting Environmental Liabilities Not Eligible for DERP Funding

The Spatial Component of EL Sites

- **EL Occur in Three Broad I&E Areas:**

EL Area	Spatial Component	Geoloc. in BEA?
1. Real Property	Have unique points, lines, or polygons	Yes
2. Facilities and Equipment	Primarily associated with building # or address	Yes & No
3. Weapons Systems	Primarily associated with a maintenance or storage facility	No

Keys to Success
for the RPI and EL Mapping Pilot Project

- Contractors (3) provide weekly progress reports that communicate progress made, % complete, issues requiring government resolution

- RPI and EL Mapping contractual 'deliverables' will be reviewed by Components during draft and final stages

- Strong need for good lines of communication between Real Property, Environmental and GI&S staff elements

- BEI to lead an "RPI Mapping Working Group" and an "EL Mapping Pilot Working Group"
  - Member from each Component
  - Forum for resolution of issues & questions, feedback conduit between headquarters/contractor/staff/installation

DISDI Data Sharing – Status & Trends

- DISDI has coordinated 22 data sharing exchanges over three fiscal years; dozens of requests redirected or maps provided instead
- No data has been (or will be) shared without permission of the Components; some data is already in public realm (e.g. IVT)

DISDI Data Request Elements:

Purpose of request; requesting Agency's project or requirement

Specific data types and installations/locations desired

Intended use of data

How requestor will limit further distribution

Technical specifications & POCs

People, Technology, or Both?
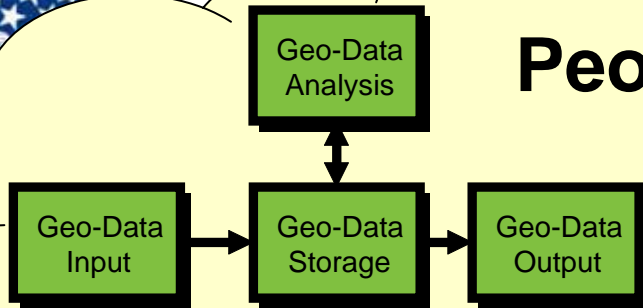
- **What is the "right" data source – what sources are authoritative?**
  - How can you tell? → Organizational Hierarchy, METADATA, professional standards

- **How will the data be used – for what purpose?**
  - Scale, accuracy, level of detail, map format, etc.
  - Is the data or analysis based on scientific rigor? ("sound science," documentation, peer review, etc.)

- **It's about both DATA and PEOPLE**
  - Avoid "If we build, it they will come"
  - Audience? Goals? Information Culture?
  - Data → Information → Knowledge

Technology is LESS important than many think it is...

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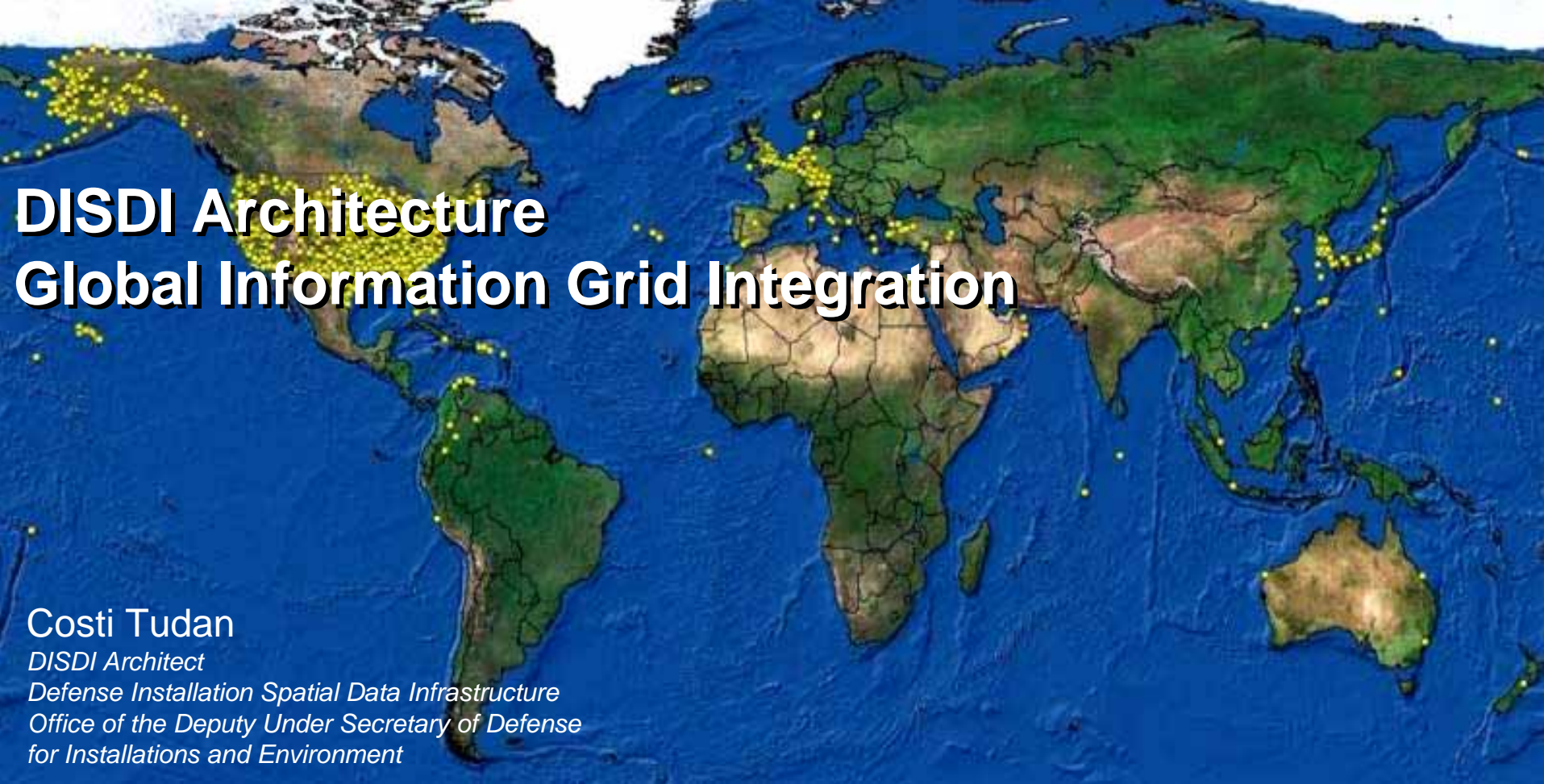
DISDI Architecture
Global Information Grid Integration

Costi Tudan
DISDI Architect
Defense Installation Spatial Data Infrastructure
Office of the Deputy Under Secretary of Defense
for Installations and Environment

Department of Defense

Deputy Under Secretary for Installations & Environment

DISDI

USACE CorpsMap	US Army IGI&S	US Navy GeoReadiness	USMC GeoFIDELIS	US Air Force GeoBase

Enabling Net-Centricity → *Data Strategy*

The Department's Strategy

To move from privately owned and stored data in disparate networks and within legacy systems and applications to an enterprise information environment where authorized known and authorized unanticipated users can access any information and can post their contributions for enterprise-wide access.

Producer and Developer

Consumer

System 1 Data

System 2 Data

System N Data

Consumer

Ubiquitous Global Network

Producer

Metadata Catalogs

Security Services (e.g., PKI, SAML)

Shared Data Space

Enterprise & Community Services

Application Services (e.g., Web)

Metadata Registries
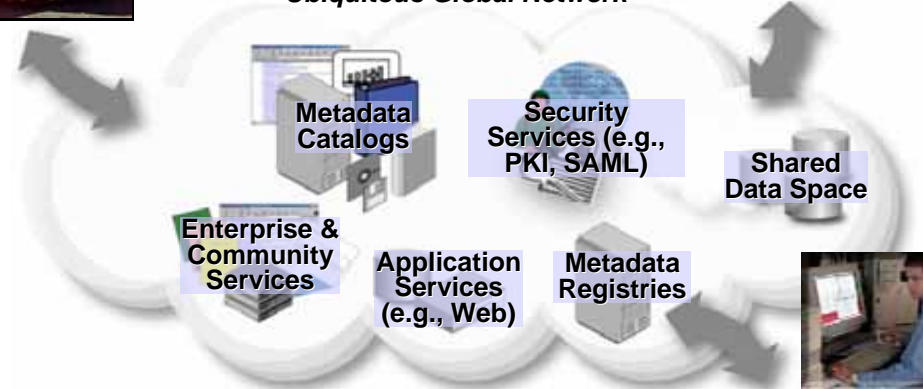
Developer

From *Producer-centric:*
- Multiple calls to find data
- Private data – only supports planned consumers
- Data translation needed for understanding when pulled from multiple sources

To *Consumer-centric:*
- Data is visible, accessible and understandable
- Shared data – supports planned and unplanned consumers
- Shared meaning of the data enables understanding

Strategic Guidance

- The Net-Centric Data Strategy (signed May 9, 2003) is a key enabler of the Department's transformation.

- DoDD 8320.2 (signed Dec 2, 2004) directs implementation of the Net-Centric Data Strategy.

- DoD 8320.2 – G (signed April 12, 2006) provides guidance for implementing the DoD Net-Centric Data Strategy.

- The Strategy provides the foundation for managing the Department's data in a net-centric environment, including:

  - ✓ Ensuring data are **visible, accessible,** and **understandable** when needed and where needed to **accelerate** decision making

  - ✓ "**Tagging**" of all data (intelligence, non-intelligence, raw, and processed) with **metadata to enable discovery** by known and **unanticipated** users in the Enterprise

  - ✓ **Posting** of all data to **shared spaces for users to access** except when limited by security, policy, or regulations

  - ✓ **Organizing around Communities of Interest (COIs)**

  - ✓ Establish Communities of Interest to understand the nature of the change.

Data Sharing Responsibilities

Key Goal of DoD Directive 8320.2	Scope of Enterprise Role	Scope of COI Role
Make data visible *Contextual Data*	* Develop, maintain DoD Discovery Metadata Specification (DDMS) to facilitate DoD-wide search * Direct development of Enterprise search capability	* Tag data holdings with DDMS * Extend for COI specific search criteria
Make data accessible *Sharing Data*	* Maintain repository of acceptable commercial standards for web-based services * Direct development of federated service registry for web-services	* Implement access services * Register access services in federated service registry
Make data understandable *Structural & Semantic Data Descriptions*	* Direct development of federated metadata registry for semantic and structural metadata	* Develop vocabularies, taxonomies for data exchange * Register these agreements in federated DoD metadata Registry

DepSecDef sees this as a DoD transformational priority !

DoD 8320.2 Directive, Data Sharing in a Net Centric Department of Defense

DoD 8320.2 Directive codifies DoD Net-Centric Data Strategy (DoD CIO)

Metadata, metadata, metadata

Three types of metadata are relevant to DISDI:

- **Geospatial Data**
  - e.g. "This GIS file includes boundaries for Langley AFB"
  - How? FGDC metadata (CSDGM, ISO 19115)

- **Services**
  - e.g., "Use this web service to access boundaries for Langley AFB"
  - How? OGC WMS, WFS, DDMS (Dod Discovery Metadata Specification)

- **Vocabulary and taxonomy**
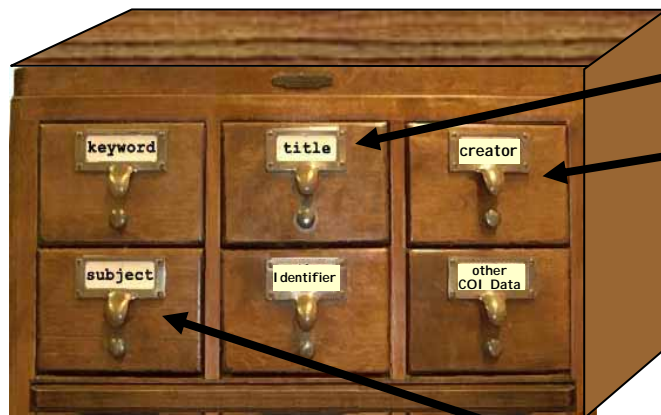 - e.g., "I can access the boundary file for Langley AFB, but I

Make Data Visible

DoD Discovery Metadata Specification (DDMS)

Data Catalog (historical)

DDMS Attributes
Security *
Title *
Identifier *
Creator *
Publisher
Contributor
Date
Rights
Language
Type
Source
Subject *
Geospatial Coverage
Temporal Coverage
Virtual Coverage
Description
Format

DISDI ISO 19115 Metadata Profile Alignment

keyword **title** **creator**

subject **Identifier** **other COI Data**

DDMS endorsed by Executive Order 13388

"Further Strengthening The Sharing Of Terrorism Information To Protect Americans"

* mandatory

DDMS: Leverages Industry Standards

Make Data Accessible

- Documents
  - Use common formats
  - Store in shared spaces accessible via URL
- Systems
  - For applications: Expose data via web services
    - Web services = "API for the web"
  - For end-user: Web-enable via browser or application
- Enablers
  - DISDI Portal
  - Expose map services

DISDI Concept of Operations (CONOPS)

DISDI Concept of Operations (CONOPS)

Acquisition, Technology and Logistics

Component data merge, Joint analysis portal implementaion

data analysis, integration portal implementation

data management and QA/QC

data collection and maintenance

The technology perspective

DISDI Concept of Operations (CONOPS)

Acquisition, Technology and Logistics

DoD discovery, metadata, access, information assurance, portal implementation

DB of record, development, metadata, portal implementation

desktop GIS, geospatial repository

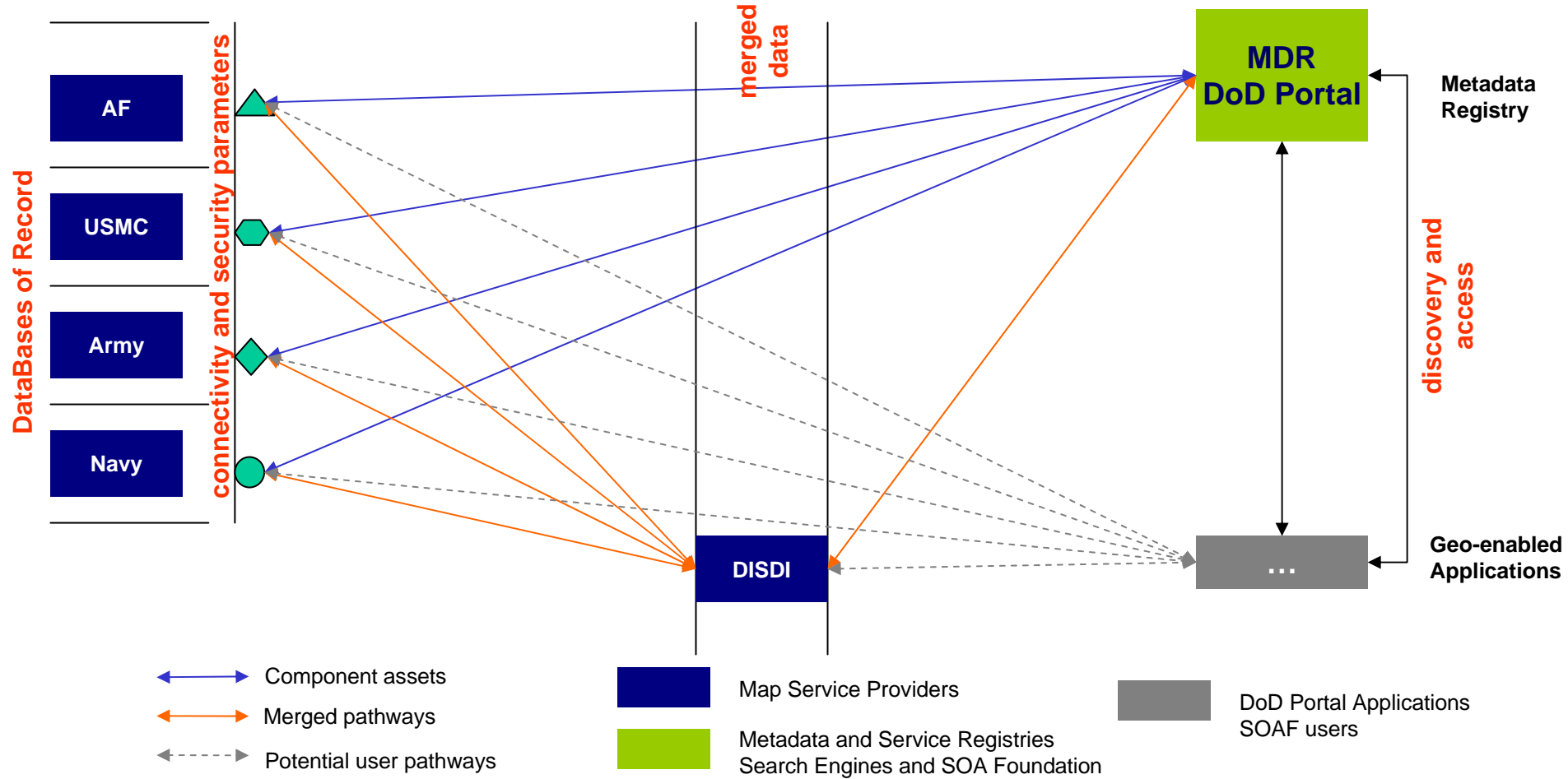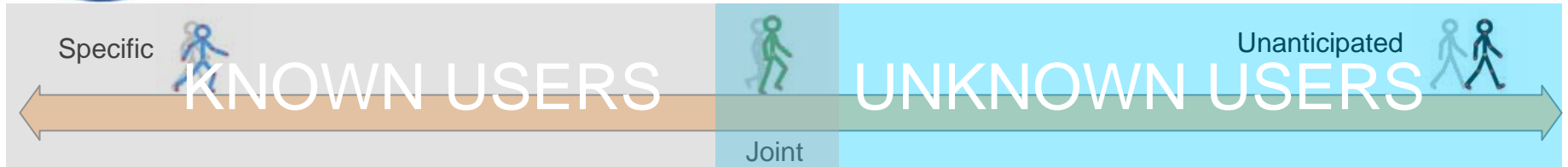**QA/QC, intranet map services**

desktop GIS, GPS, fieldwork

User Access Continuum

Acquisition, Technology and Logistics

User Access Continuum

Specific

Unanticipated

KNOWN USERS

UNKNOWN USERS

User Access
Joint

merged data

connectivity and security parameters

MDR DoD Portal

Metadata Registry

discovery and use

AF

USMC

Army

Navy

DISDI

Geo-enabled Applications
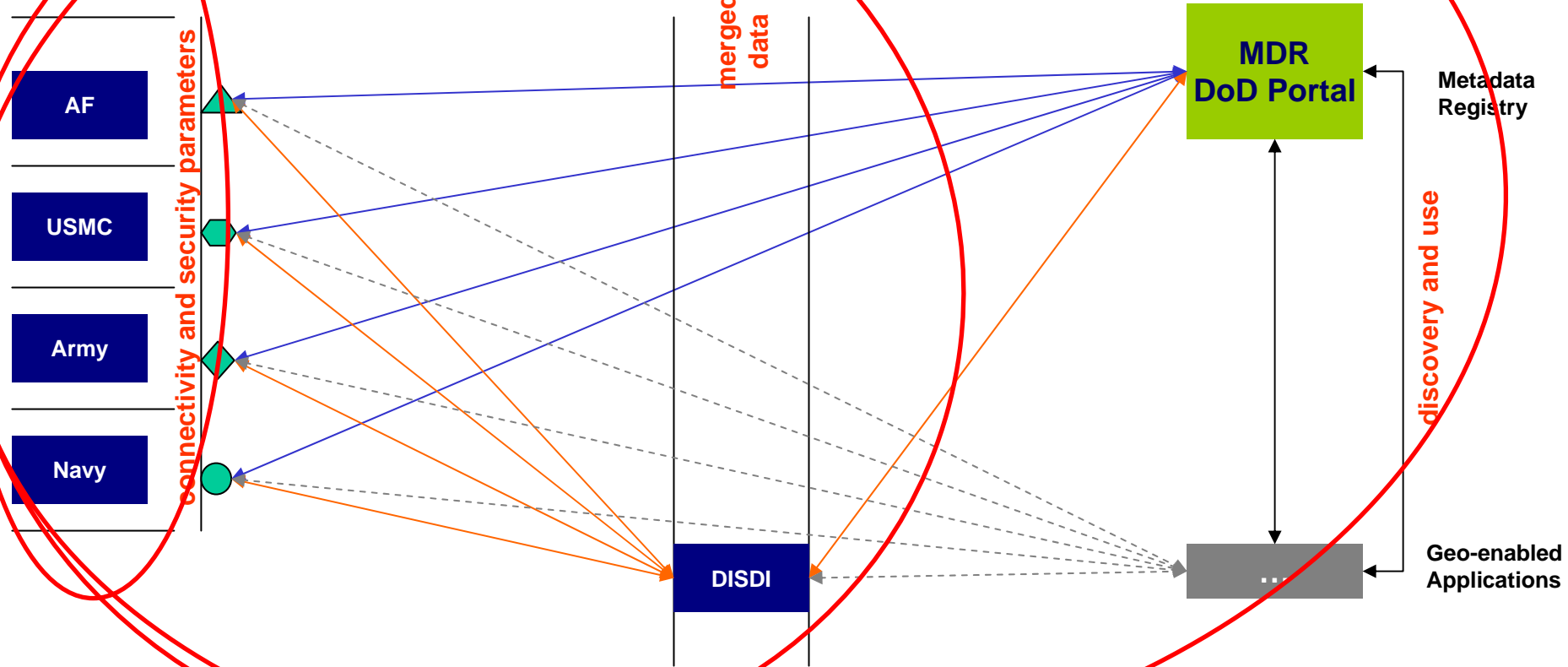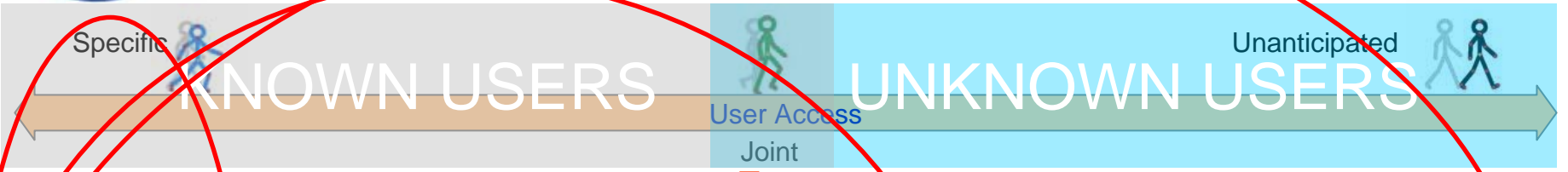
Component assets

Merged pathways

Potential user pathways

Map Service Providers

Metadata and Service Registries
Search Engines and SOA Foundation

DoD Portal Applications
SOAF users

How do we get there?

- Leverage **existing** Component portal implementation efforts, and the DoD portal Enterprise Services and Product Lines
    - Services' DB of record are the foundation
    - Register metadata (of all types) to the MDR and DoD Portal
- Solve the data merge problem **once**
    - Define joint Common Installation Picture
- Provide a **common access** location/standard **without modifying the supplying architectures**
    - DISDI Portal acts as the broker to Joint and merged geospatial data
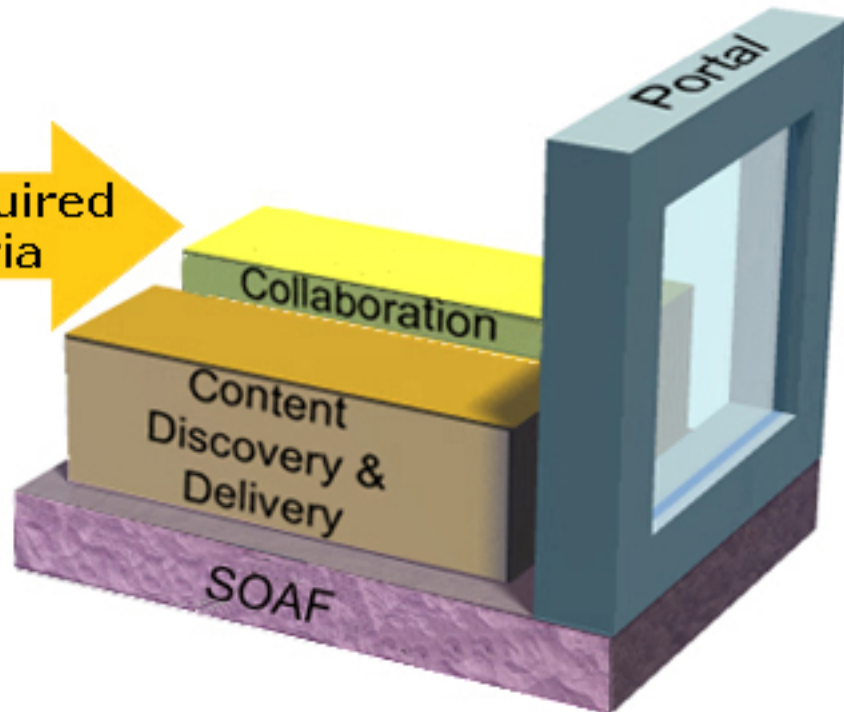- User/provider transparent security model – joint access

DoD Global Enterprise Services Portal Framework

# How do we get there: Information Assurance Strategy

> *DoD has developed a new DoD C&A instruction and two DoD-owned Web-based services based on COTS applications to transform the DoD C&A process in support of the Net-Centric, GIG-based environment*

- DIACAP ("DoD Information Assurance Certification and Accreditation Process" - DoDI 8510.bb)
  - Supersedes DoDI 5200.40, "DoD Information Technology Security Certification and Accreditation Process (DITSCAP)"
  - Adjudication of Formal SD 106 comments is near-completion

- DIACAP Knowledge Service (KS)
  - Web-based resource for DIACAP implementation;
  - Enterprise Mission Assurance Support Service (eMASS)
  - IA program management service; automates C&A workflow;
  pilots in progress
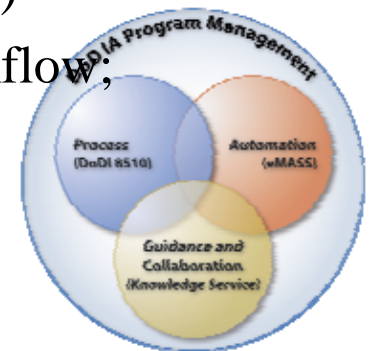
DISDI Architecture Strategy: Summary

- There are *known* and *unknown* users of installation geospatial data
  - The DISDI CoI needs to accommodate <u>both</u> types of users by aligning with DoD Net-Centric Data Strategy

- DoD's Net-Centric Data Strategy defines goals for making our data available to the DoD enterprise
  - Make data **visible**
  - Make data **accessible**
  - Make data **understandable**

- DISDI architecture strategy will meet these goals by:
  - Leveraging Service Component geospatial databases of record
  - Providing the DISDI Portal as a broker to common/joint (merged) data
  - Registering data, services, metadata and vocabularies to the DoD Metadata Registry and DoD Portal

DISDI Overview: Agenda

- Introduction to DISDI

- DISDI Governance

- DISDI Policy Agenda

- Supporting DoD Missions – RPI, EL, Data Sharing

- DISDI Architecture – Global Information Grid Integration

- Standards Alignment & Quality Assurance

- SDSFIE Update – Re-engineering the Standard

    → BREAK: 1000-1030 → → → Imagery Stewardship – TEC IO
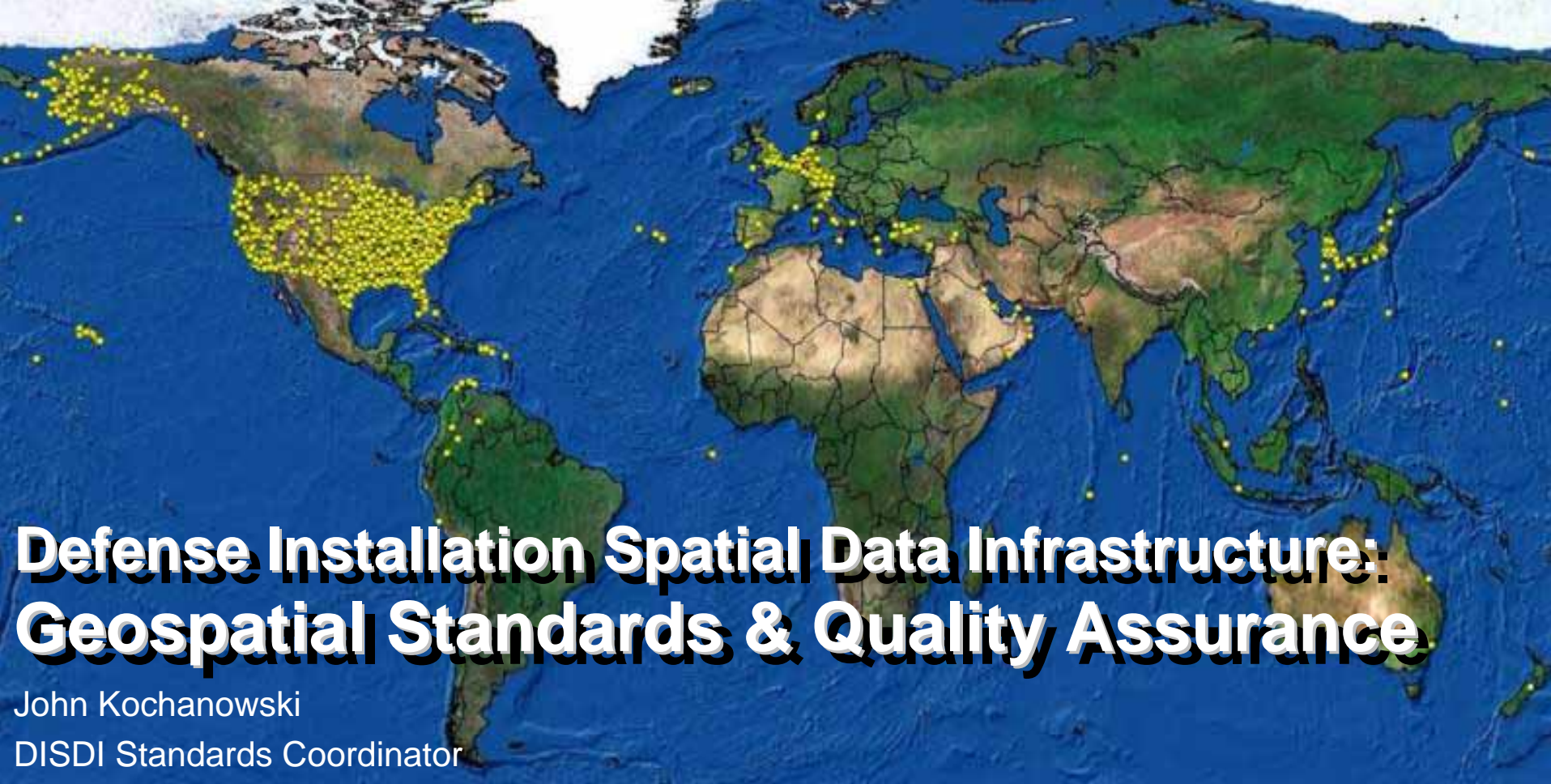
Defense Installation Spatial Data Infrastructure: Geospatial Standards & Quality Assurance

John Kochanowski

DISDI Standards Coordinator

Department of Defense

Deputy Under Secretary for Installations & Environment

US Army Installation Geospatial Information & Services

US Navy GeoReadiness

USMC GeoFIDELIS

US Air Force GeoBase

DISDI

Agenda

- **DISDI Standards Coordination - Primary Focus**

- **DISDI Geospatial Standards - Objectives & Progress**
  - **Standards Alignment**

  - **Metadata**

  - **Quality Assurance Planning**

DISDI Standards Coordination
Primary Focus

1. Geospatial Data Standards & Content Strategies
   - Geospatial Data Alignment
     - Spatial Data Standard for Facilities, Infrastructure, and Environment (SDSFIE)
     - National System for Geospatial-Intelligence (NSG)
     - Federal Geographic Data Committee (FGDC)
     - DoD Business Enterprise Architecture (BEA)

2. Geospatial Metadata Strategies
   - Developing a new geospatial metadata profile
   - Discoverable, Accessible, Understandable
   - Uniform Quantitative & Qualitative Measurements of Data

3. Quality Assurance Planning & Reporting
   - Establish **Common** Geospatial Data Quality Reporting
   - Maturing DoD User Community Expectations

Standards:
Precursor to the Establishment of Quality Assurance

SDSFIE & DISDI Involvement

- DoD Business Mission Area Liaison for Geospatial Data Standards
  - Ensure new standard legitimately meets DoD enterprise data strategies
    - DoD Net-centric Enterprise Data Strategy (DoD Directive 8320.2)
    - Business Enterprise Architecture (BEA)

- Geospatial-Intelligence Working Group (GWG) Coordination
  - Application Schema Feature Encoding (ASFE) Focus Group
    - **Finalizing creation of an SDSFIE Technical Panel**
    - Support SDSFIE guidance, harmonization, and alignment with NSG Feature Catalog
    - Establish procedures for managing SDSFIE updates to the DoD IT Standards Registry

- FGDC Alignment
  - Framework data standards
  - Metadata linkages

Metadata

➢ **Migrate Business Mission Area CSDGM Metadata to ISO 19115 *AND* support _ALL_ DoD metadata reporting requirements with a new DISDI Metadata Profile**

- DDMS
- IVT
- Army
- Navy
- Air Force
- Marines
- NGA
- CSDGM

CSDGM 2.0

NSDI

National Spatial Data Infrastructure

DDMS

Common Core

IVT

INTERNATIONAL STANDARD

ISO 19115

First edition 2003-05-01

Geographic information — Metadata

Information géographique — Métadonnées

Adopted by INCITS (InterNational Committee for Information Technology Standards) as an American National Standard.

Date of ANSI Approval: 12/24/2003

Published by American National Standards Institute, 25 West 43rd Street, New York, New York 10036

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DISDI Metadata Profile

Metadata
Why Change???

- **Net-Centric Enterprise Strategy (NCES)**
  - Defense Discovery Metadata Specification (DDMS)
  - Defense Information Technology Standards Registry (DISR)

- **National System for Geospatial-Intelligence (NSG) Geospatial-Intelligence Working Group (GWG)**
  - GWG Metadata Focus Group (MFG)
  - GWG Application Schema and Feature Encoding (ASFE) Focus Group

- **Installation Visualization Tool (IVT)**

- **DISDI Spiral II Architecture**

- **Federal Geographic Data Committee (FGDC)**
  - DRAFT North American Profile (NAP)

Minimize Mission Impact to DoD Components

- **DISDI Metadata Working Group**
  - Established 27 Oct 06
  - Army, Navy, Air Force, Marine representation
  - Identified and drafted a set of standard metadata elements based on ISO 19115.

- **DISDI Geospatial Metadata Profile Draft Specification**
  - Scheduled comment review NLT 26 Jan 07
  - Three week Component review/comment
  - DISDI Geospatial Metadata Profile 1.0 to be delivered to DISDI Group for approval NLT mid-March

- **Next Steps**
  - XML Schema Development
  - Translation Tools
  - Editor/Publishing Tool

56

Quality Assurance Standards & Planning

Bringing It All Together - Quality Assurance Plans

QAP… a specification based on a common set of authoritative guidelines
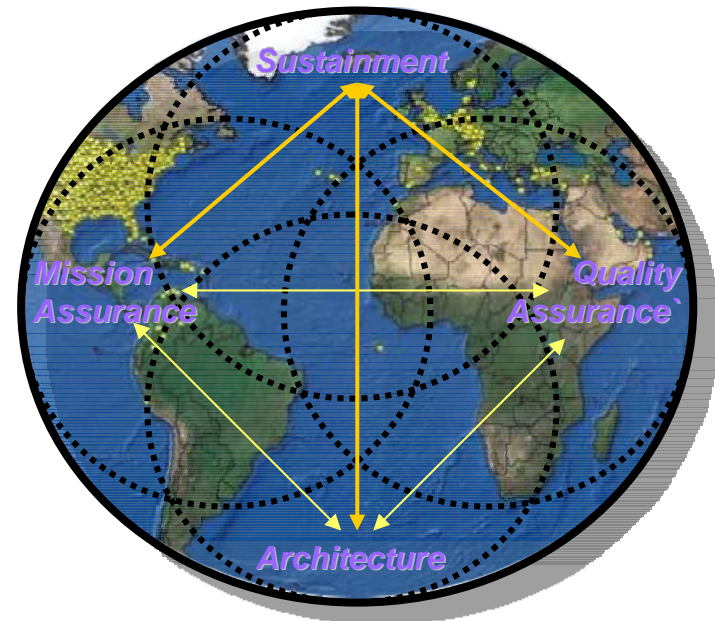
Standards-Based Data Requirements

– Content

– Organization

– Extent

– Metadata

Collection Guidelines

– Data Sources

– Positional Accuracy

– Content Accuracy

Certification, Acceptance, & Ownership

– Validation Guidelines

– Data Submission Requirements

– Security Requirements

Initial Development To Begin in conjunction with DISDI Common Installation Picture (CIP)

**Standards:
Precursor to the Establishment of Quality Assurance**

The Defense Installation Spatial
Data Infrastructure (DISDI) Group

Questions?