DEFENSE LOGISTICS AGENCY

AMERICA'S COMBAT LOGISTICS SUPPORT AGENCY

DoD Activity Address Directory (DoDAAD) Brief to Supply PRC

October 19, 2016

Agenda

- DoDAAD PRC
- DATA Act & FIAR
- GSA Updates
- DoDAAD Changes
- Discrete Data

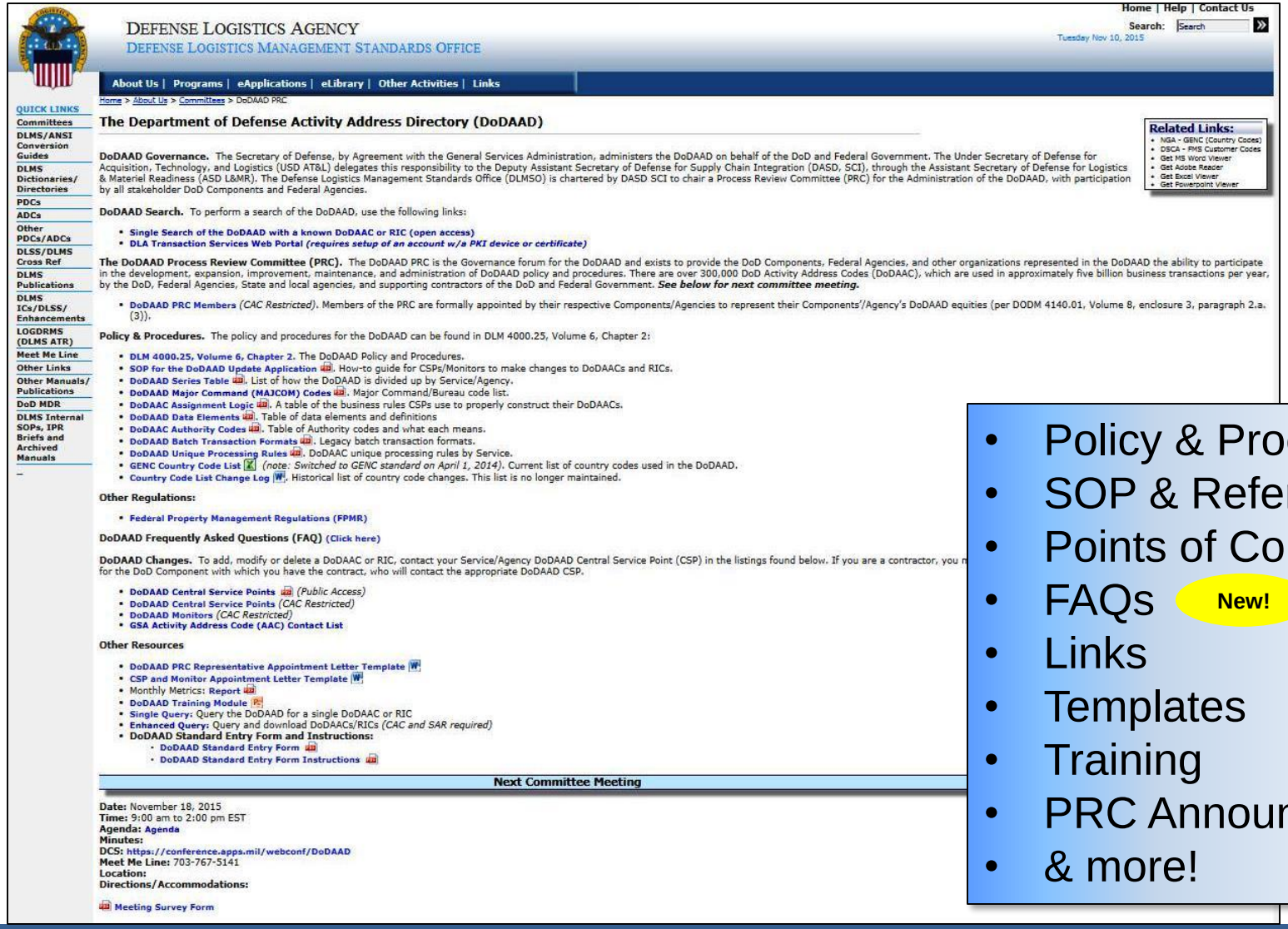
The DPRC – Who we are:

Over 30 Members representing 100's of stakeholders* / 343,755 DoDAACs / 11,373 RICs

SERVICE/AGENCY	DoDAACs	%	DoDAACs Avail	RICs	RICs Avail
US Army	128,977	37.52%	182,949,167	2,397	4,083
GSA (Federal Agencies)	119,887	34.88%	604,541,873	83	NA
DLA	32,865	9.56%	125,938,442	1,139	1,453
US Air Force	26,232	7.63%	181,372,296	2,530	1,358
USN	14,820	4.31%	241,849,884	4,454	2,026
USMC	5,487	1.60%	120,926,865	495	2,097
USTRANSCOM DCD	5,100	1.48%	1,674,516		
USCG	2,794	0.81%	1,676,822	213	1,083
AAFES	2,603	0.76%	1,677,013		
NGA	1,229	0.36%	1,678,387		
WHS (Fourth Estate)	909	0.26%	1,678,707	62	1,234
DECA	517	0.15%	46,139		
DCAA	487	0.14%	1,679,129		
DIA	440	0.13%	1,679,176		
DFAS	305	0.09%	46,351		
DODEA	248	0.07%	1,679,368		
DCMA	229	0.07%	1,679,387		
USSOCOM	131	0.04%	46,525		
DISA	129	0.04%	46,527		
DSS	91	0.03%	1,679,525		
DODIG	73	0.02%	1,679,543		
MPSA	61	0.02%	1,679,555		
DTRA	50	0.01%	1,679,566		
USTRANSCOM ACQ	33	0.01%	46,623		
NSA	31	0.01%	46,625		
USSTRATCOM	12	0.00%	46,644		
USUHS	7	0.00%	1,679,609		
DARPA	6	0.00%	1,679,610		
USCENTCOM	2	0.00%	46,654		
TOTAL	343,755		2,176,438,581	11,373	11,955

* Includes Fed, State/local, CTR, NGO & Foreign

DPRC Webpage



DEFENSE LOGISTICS AGENCY
DEFENSE LOGISTICS MANAGEMENT STANDARDS OFFICE

Home | Help | Contact Us
Search: Search
Tuesday Nov 10, 2015

About Us | Programs | eApplications | eLibrary | Other Activities | Links

QUICK LINKS
Committees
DLMS/ANSI Conversion Guides
DLMS Dictionaries/ Directories
PDCs
ADCs
Other PDCs/ADCs
DLSS/DLMS Cross Ref
DLMS Publications
DLMS ICs/DLSS/ Enhancements
LOGDRMS (DLMS ATR)
Meet Me Line
Other Links
Other Manuals/ Publications
DoD MDR
DLMS Internal SOPs, IPR Briefs and Archived Manuals

Home > About Us > Committees > DoDAAD PRC

The Department of Defense Activity Address Directory (DoDAAD)

Related Links:
- NGA - GENC (Country Codes)
- DSCA - FMS Customer Codes
- Get MS Word Viewer
- Get Adobe Reader
- Get Excel Viewer
- Get Powerpoint Viewer

DoDAAD Governance. The Secretary of Defense, by Agreement with the General Services Administration, administers the DoDAAD on behalf of the DoD and Federal Government. The Under Secretary of Defense for Acquisition, Technology, and Logistics (USD AT&L) delegates this responsibility to the Deputy Assistant Secretary of Defense for Supply Chain Integration (DASD, SCI), through the Assistant Secretary of Defense for Logistics & Materiel Readiness (ASD L&MR). The Defense Logistics Management Standards Office (DLMSO) is chartered by DASD SCI to chair a Process Review Committee (PRC) for the Administration of the DoDAAD, with participation by all stakeholder DoD Components and Federal Agencies.

DoDAAD Search. To perform a search of the DoDAAD, use the following links:

- **Single Search of the DoDAAD with a known DoDAAC or RIC (open access)**
- **DLA Transaction Services Web Portal** ***(requires setup of an account w/a PKI device or certificate)***

The DoDAAD Process Review Committee (PRC). The DoDAAD PRC is the Governance forum for the DoDAAD and exists to provide the DoD Components, Federal Agencies, and other organizations represented in the DoDAAD the ability to participate in the development, expansion, improvement, maintenance, and administration of DoDAAD policy and procedures. There are over 300,000 DoD Activity Address Codes (DoDAAC), which are used in approximately five billion business transactions per year, by the DoD, Federal Agencies, State and local agencies, and supporting contractors of the DoD and Federal Government. ***See below for next committee meeting.***

- **DoDAAD PRC Members** *(CAC Restricted)*. Members of the PRC are formally appointed by their respective Components/Agencies to represent their Components'/Agency's DoDAAD equities (per DODM 4140.01, Volume 8, enclosure 3, paragraph 2.a. (3)).

Policy & Procedures. The policy and procedures for the DoDAAD can be found in DLM 4000.25, Volume 6, Chapter 2:

- **DLM 4000.25, Volume 6, Chapter 2.** The DoDAAD Policy and Procedures.
- **SOP for the DoDAAD Update Application**. How-to guide for CSPs/Monitors to make changes to DoDAACs and RICs.
- **DoDAAD Series Table**. List of how the DoDAAD is divided up by Service/Agency.
- **DoDAAD Major Command (MAJCOM) Codes**. Major Command/Bureau code list.
- **DoDAAC Assignment Logic**. A table of the business rules CSPs use to properly construct their DoDAACs.
- **DoDAAD Data Elements**. Table of data elements and definitions
- **DoDAAC Authority Codes**. Table of Authority codes and what each means.
- **DoDAAD Batch Transaction Formats**. Legacy batch transaction formats.
- **DoDAAD Unique Processing Rules**. DoDAAC unique processing rules by Service.
- **GENC Country Code List** *(note: Switched to GENC standard on April 1, 2014)*. Current list of country codes used in the DoDAAD.
- **Country Code List Change Log**. Historical list of country code changes. This list is no longer maintained.

Other Regulations:

- **Federal Property Management Regulations (FPMR)**

DoDAAD Frequently Asked Questions (FAQ) **(Click here)**

DoDAAD Changes. To add, modify or delete a DoDAAC or RIC, contact your Service/Agency DoDAAD Central Service Point (CSP) in the listings found below. If you are a contractor, you n
for the DoD Component with which you have the contract, who will contact the appropriate DoDAAD CSP.

- **DoDAAD Central Service Points** *(Public Access)*
- **DoDAAD Central Service Points** *(CAC Restricted)*
- **DoDAAD Monitors** *(CAC Restricted)*
- **GSA Activity Address Code (AAC) Contact List**

Other Resources

- **DoDAAD PRC Representative Appointment Letter Template**
- **CSP and Monitor Appointment Letter Template**
- Monthly Metrics: **Report**
- **DoDAAD Training Module**
- **Single Query:** Query the DoDAAD for a single DoDAAC or RIC
- **Enhanced Query:** Query and download DoDAACs/RICs *(CAC and SAR required)*
- **DoDAAD Standard Entry Form and Instructions:**
  - **DoDAAD Standard Entry Form**
  - **DoDAAD Standard Entry Form Instructions**

Next Committee Meeting

Date: November 18, 2015
Time: 9:00 am to 2:00 pm EST
Agenda: **Agenda**
Minutes:
DCS: **https://conference.apps.mil/webconf/DoDAAD**
Meet Me Line: 703-767-5141
Location:
Directions/Accommodations:

Meeting Survey Form

- Policy & Procedures
- SOP & References
- Points of Contact
- FAQs **New!**
- Links
- Templates
- Training
- PRC Announcements
- & more!

The DATA Act

- The Digital Accountability and Transparency Act (P.L. 113-101) was signed into law in May 2014.
- The DATA Act is the nation's first legislative mandate for data transparency. It requires the Department of the Treasury and the Office of Management and Budget (OMB) to transform U.S. federal spending from disconnected documents into open, standardized data, and to publish that data online. It:
  - Expands the Federal Funding Accountability and Transparency Act of 2006 by requiring the disclosure of direct federal agency expenditures and linking federal contract, loan, and grant spending information to federal programs to enable taxpayers and policy makers to track federal spending more effectively,
  - Establishes government-wide data standards for financial data and provides consistent, reliable, and searchable government-wide spending data that is displayed accurately for taxpayers and policy makers on USASpending.gov,
  - Simplifies reporting for entities receiving federal funds by streamlining reporting requirements and reducing compliance costs while improving transparency,
- DoD (AT&L) has worked closely with OMB and Treasury leaders to implement the DATA Act in the procurement and grants communities.

The DATA Act and DoDAAC

- The DATA Act and related FAR updates require that all federal agencies
  - Identify their contracting and funding offices using DoDAACs
  - Use a standard contract action numbering schema, including the DoDAAC of the contracting office issuing an award as the first six (6) characters
- These changes have resulted in increased focus on the DoDAAC and an opportunity to enhance the data elements within the records
- Several new data elements have been or will be introduced to improve:
  - Identification of what type of organization the DoDAAC represents
  - Identification of the DoDAAC's "owning" organization/place in the hierarchy
  - Identification of the role(s) the DoDAAC activity has in the business process

FIAR

- The culminating amalgamation of three Acts:
- **Federal Managers' Financial Integrity Act (FMFIA) of 1982**
  Requires agencies to evaluate their system of internal accounting and administrative controls and to report on the effectiveness of these controls in an annual statement of assurance. Appendix A of OMB Circular A-123 provides specific requirements for conducting management's assessment of internal control over financial reporting, and also requires the agency head to provide an assurance statement on the effectiveness of internal controls over financial reporting.

FIAR

- **Chief Financial Officers Act of 1990**
  Charged OMB with overseeing various managerial functions and policy for information, procurement, and property management, and in particular charged OMB with establishing government-wide financial management policies and requirements and monitoring the establishment and operation of financial management systems, amongst other provisions.
- **Federal Financial Management Improvement Act (FFMIA) of 1996**
  Requires agencies to implement and maintain financial management systems that comply substantially with Federal financial management systems requirements, applicable Federal accounting standards, and the U.S. Standard General Ledger (USSGL) **at the transaction level**. FFMIA supports the same objectives as the Chief Financial Officers Act of 1990 **but with a systems emphasis.**

FIAR and the DoDAAC

- Auditability requires data in systems.
- Nearly every business event transaction in the DoD is created with a DoDAAC.
- Traceability is further facilitated by common data standards (of which the DoDAAC is but one, albeit nearly universal, code).
- Auditability relies upon effective management internal controls.
- Management internal controls (MIC) exist when practices are in place that ensure data is accurate and compliant with regulations. Ergo, **MIC relies on *effective policy* to ensure these practices are maintained,** and that a mechanism of compliance is being exercised to safeguard auditable (and transparent) data.
- No policy = no MIC.
- No MIC = no accurate data.
- No accurate data = no clean opinion.
- ***It is critical that policy and procedures identify how and when DoDAACs are used to facilitate a Service's various business processes in systems, and how that data supports auditability.***

DoDAAD Policy & Procedures

DoD DoDAAD Policy and Procedures

DLM 4000.25, Volume 6, Chapter 2

Top Tier-level Policies and Procedures for DoDAAD

Federal Agencies: CFR 41, Federal Property Management Regulations
U.S. Army: AR 725-50
U.S. Air Force: AFI 24-230
U.S. Marine Corps: MCO 4400.201, Volume 2
U.S. Coast Guard: COMDTINST M4000.2
Defense Information Systems Agency: DISA Instruction 270-50-10

No Policies and Procedures for DoDAAD

Navy	DECA	DTRA	USUHS	WHS
DLA	DCAA	DODEA	USSOCOM	
DCMA	DFAS	DODIG	USSTRATCOM	
AAFES	DIA	MPSA	USTRANSCOM ACQ	
DARPA	DSS	NSA	USTRANSCOM DCD	

GSA AAC "Projects"

The Data Act has required the Civilian Federal agencies and GSA to take a hard look at their AACs:

- Implement the Activity Address Code (AAC) as the office code in FPDS-NG
  - Between mid 2015 through March 31, 2016 we created 3,378 new AACs and modified 2,287 existing AACs for use in FPDS-NG reporting. Work still continues.
  - We have deleted another 3071 AACs with many thousands more to go
- Required use of a valid AAC for GSA Advantage requisitions
  - For many years we have assigned "dummy" codes that begin with GY or GU
  - Plan is to implement August 8th, 2016
  - Most users probably will not know their AAC
  - Messaging will go out to current users to "be prepared"
  - GSA will rely heavily on CSPs, Monitors, and POCs to provide the user their AAC
- Current and future clean up continues
  - We have completely overhauled and updated our POC list
  - Deleting AACs for Agencies that no longer exist
  - State/Local Fire support AAC cleanup and/or deletion
  - Come in to compliance with Authority Code and Addressing rules

GSA Component Data Corrections

Federal Changes:

- *7,329 DoDAACs (2.15% of the total). Changes needed:*
  - *Org type code incorrect*
  - *Contractor flag not set*
  - *State DoDAACs incorrectly shown as Federal*

State Changes:

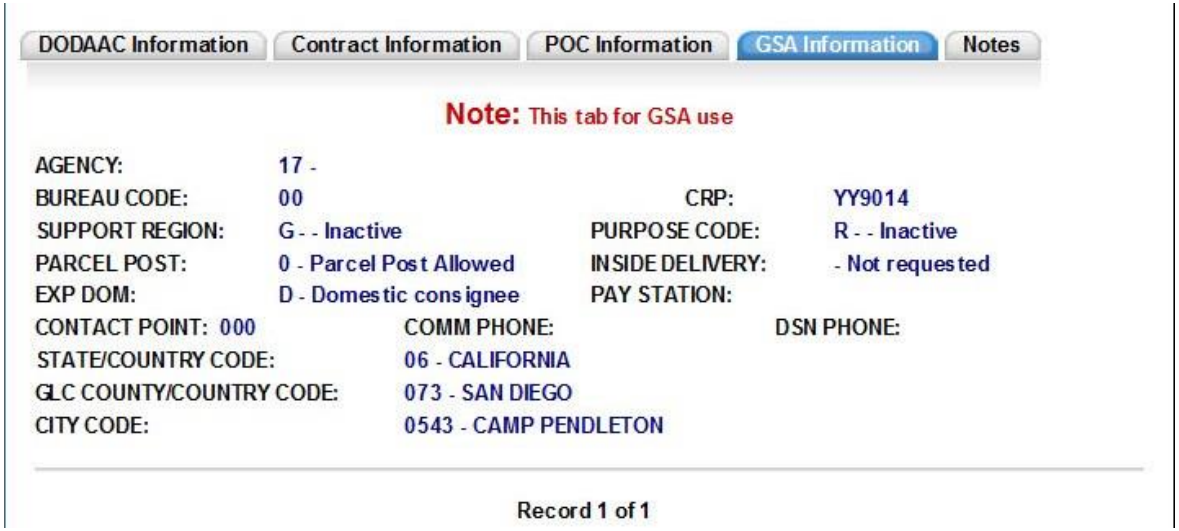
- *1,187 DoDAACs (.35% of the total). Changes needed:*
  - *Incorrect Special Program designation. Actually contractor DoDAACs.*
  - *Federal DoDAACs incorrectly shown as State*

Other Changes:

- *696 DoDAACs are foreign owners*
- *3 DoDAACs are designated as HB series (but this series does not official exist)*

DoDAAD and the Customer Address File (CAF)

- GSA's CAF has been in existence nearly as long as the DoDAAD (decades)
- GSA systems use data that is unique to GSA, as well as data in the DoDAAD. The CAF thus contains both DoD and GSA data.
- The DoDAAD has a module that allows the entering of this GSA data, but it can only be done by GSA.
- This GSA Data is maintained in a separate table at DAAS from the DoDAAD table.
- With the advent of GSA's dissolution of its Distribution Centers, GSA relies on the DoD distribution pipeline. This requires DoDAAD data and not the data previously unique to GSA.
- *GSA and DLMSO are currently working to hone in on the core essential data necessary for GSA's requirements*.



Recent Changes

1190 Org Type Code indicator- D, F, S, N, & X

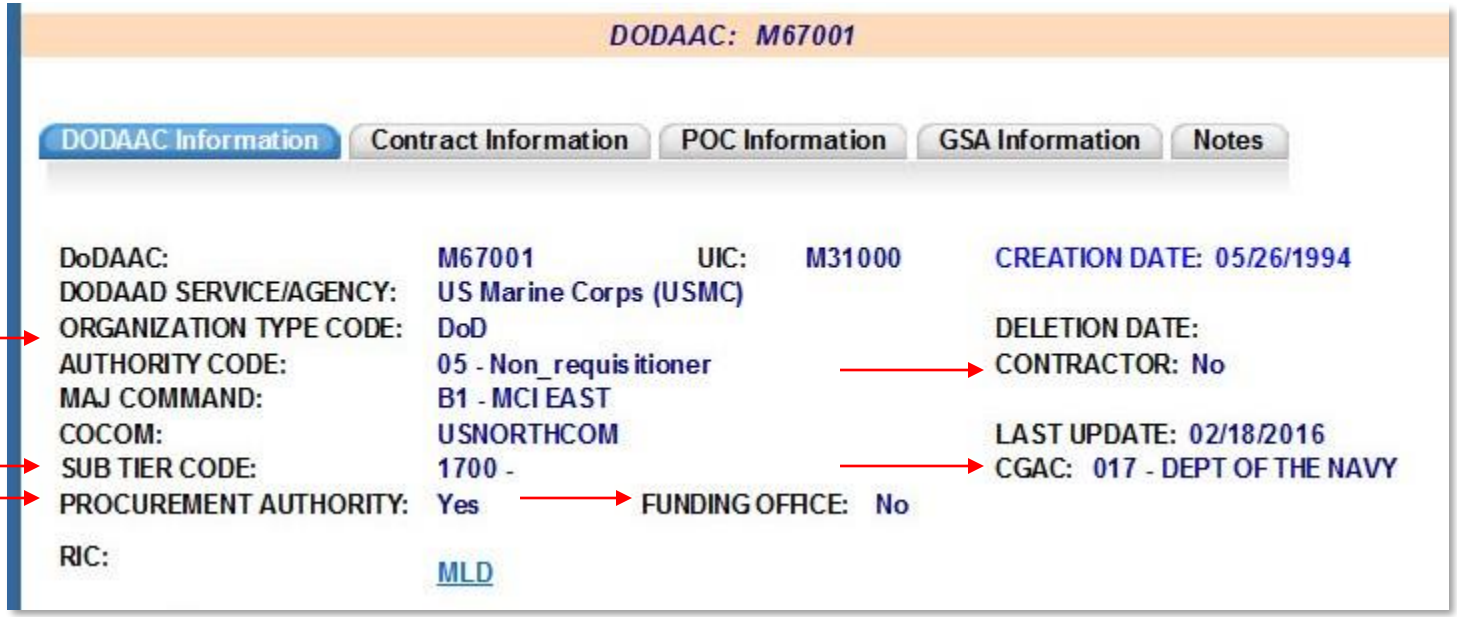
1191 Contractor flag – Yes/No

1192 Procurement Authority flag – Yes/No

1194 Sub Tier Code – 4-digit: 2-digit Treas Agcy + 2-digit Sub Tier

1195 Common Government-wide Accounting Code (CGAC) – 3-digit

1201 Funding Office flag – Yes/No



Contractor Flag

1191 Contractor flag – Yes/No

Impacts

MILS	VS	DLMS +
Service/Agency Code		Indicator – discrete data element
C, E, HG, L, Q9, U, Z0		Based on data not RP
Record Position-based		Would require read of indicator
HGC123-6275-0001		Enables expansion
DoDAAC HGC123 = Acme Inc.		Facilitates current uses
DoDAAC HGD123 = Stuff Inc.		
DoDAAC H12345 = WidgetsRUs Inc.		
Restricts using all permutations		

Funding Office Flag

1201 Funding Office flag – Yes/No

Impacts

The Flag exists in the database; however, the business rules are still being defined:

- What is a funding office (activity)? Ability to provide funding
- Can the activity execute a budget (i.e., requisitions, MIPRs, etc.)? TBD
- What will the inter-relationship be between this flag and authority codes/fund codes? TBD

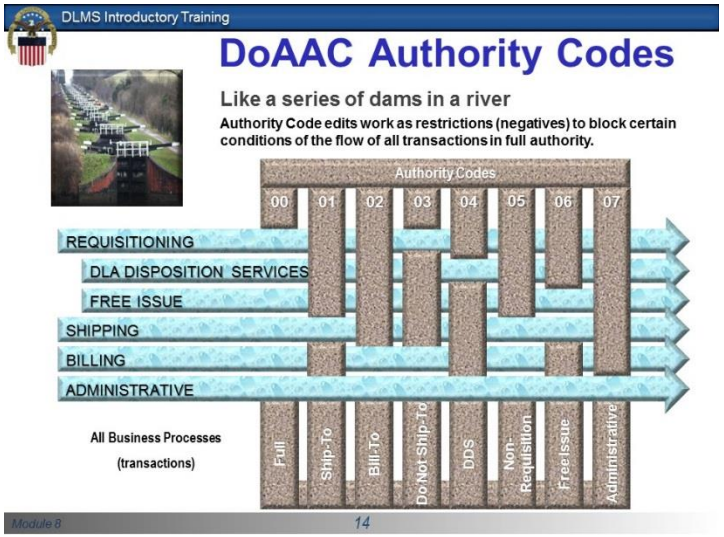
Additional DoDAAC Purposes

Original Purpose of a DoDAAC: Get it, ship it, pay for it.

Type Address "Code" 1 = Who can get it

Type Address "Code" 2 = Where to send it

Type Address "Code" 3 = Who to bill for it



Authority Codes (2007):

00 – Can do all three

01 – Can only be shipped to

02 – Can only be billed

03 – Can only get it and and pay for it (can't be shipped to)

04 – Can only be used for DLA Dispo Svcs

05 – Can only be shipped to and billed

06 – Can only get free stuff and have it shipped to them

07 – Administrative use only

Additional DoDAAC Purposes

DoDAAC uses today: supply requisition, procurement, transportation control number, MIPR, PIID, Funding, Pay, Disbursing, Bill, NAF, Grants, EIN, Receiving, Inspection, Acceptance, Shipping, Security, Property, contract administration, maintenance, storage, inventory, HR, readiness, etc.

Which of the current three addresses should be used for each of these?

Authority Codes do not meet the need.

New paradigm: Function requires data & data includes address information

New Purpose “Codes” (flags/indicators) for each of these uses.

Each will beget a new section of information in the DoDAAC.

Additional DoDAAC Purposes

Today: TACs 1, 2, & 3 (Get it, Ship it, Bill it)

Tomorrow: If/then…

TAC 1 becomes Record Information (official mailing address of activity)

Procurement Flag = Procurement Information section (and address)

Funding Office Flag = Funding Information section (and address)

Requisitioning Flag (?) = Requisitioning Information section (and address)

Receiving Flag (?) = TAC2 becomes Receiving Information (and address)

Pay Office Flag (?) = TAC3 becomes Payment Office Information ?

Shipping Flag (?) = BLOC information for authorized shipping activities

Etc.

Authority Codes would eventually be replaced by these flags

Forthcoming Purposes

Near Term:

Procurement

Funding Office

Grant Office

Pay Office

Longer Term:

Requisitioning	Receiving	Shipping
Acceptance	Inspection	Property
NAF	Reimbursable	CAO
Disbursing	Security	Storage
More…		

Forthcoming Changes

ADC 1218 CAGE Code Lookup

PDC 1197 Automated Request

PDC 1243 “The Last of the RICs”

PDC 1046 RIC / DoDAAC Relationship Rules

PDC 1116 CTR DoDAAC Unique to a Single Contract Number

PDC 1212 End Contract Period of Performance Date

PDC 1145 DoDAAD Output

PDC 1196 GSA Bureau Codes

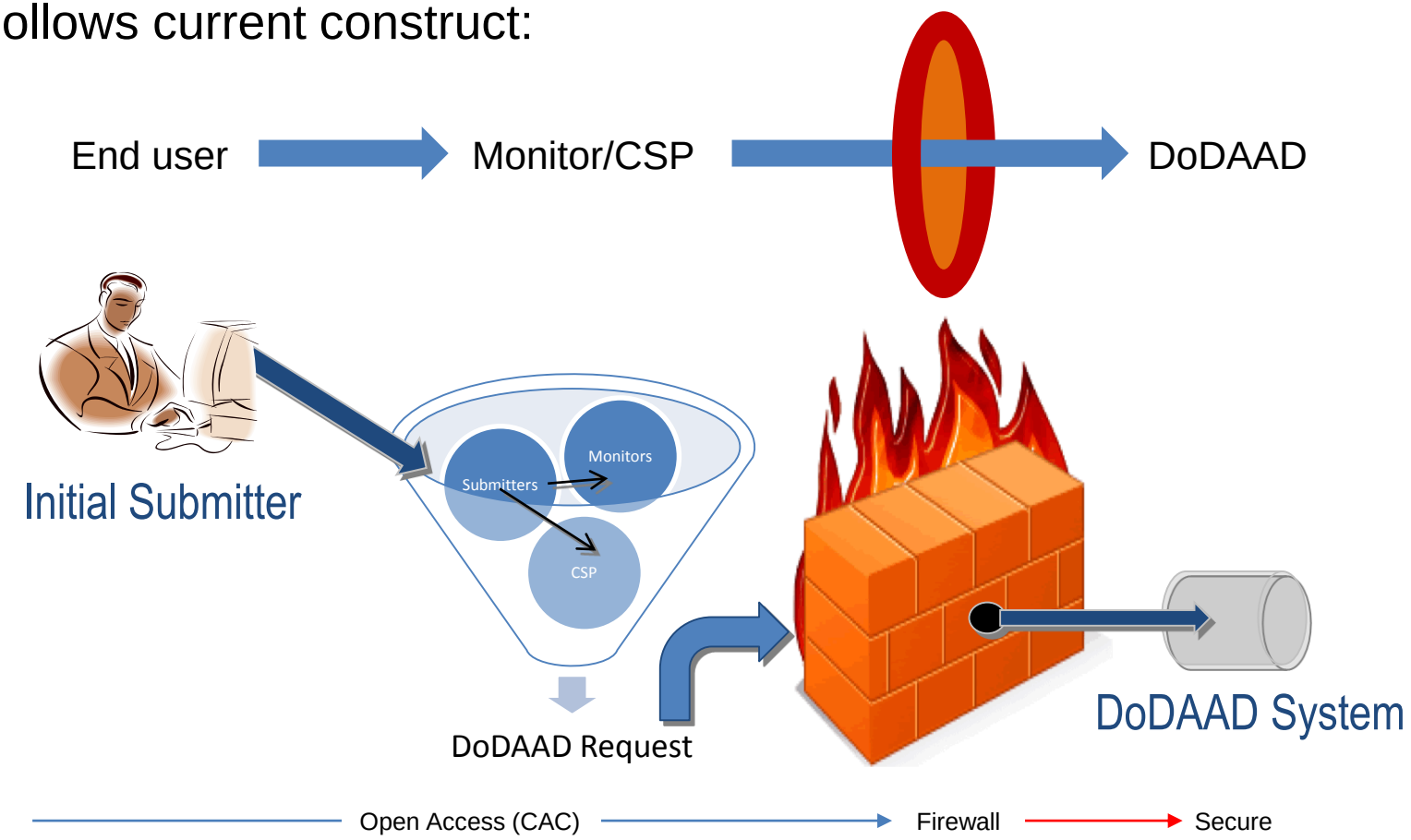
*Inter-related

ADC 1218 CAGE Code Lookup

CSP's will be afforded an ability from this screen to actually query the CAGE System to view the CAGE data for the CAGE Code to ensure that (a) the CAGE Code is valid, and (b) that the address being entered for the CTR DoDAAC matches that which is recorded in the CAGE System for the CAGE Code.

Automated Request Process

- Simple approach to automating front-end data entry
- Facilitates user access to CSPs/Monitors for updating data
- Follows current construct:



Automated Request Process

What does this give us?

1. Any user has the ability to create a request and provide the data at the front end.
2. Request goes to a cue based on type.
3. CSP/Monitor acts on request and “pulls” the data behind the firewall to update to the DoDAAD.
4. Automates a decades-old, paper/phone call-based process.
5. Enables users “access” to the process/system (without actually having access to the DoDAAD directly).
6. Decentralized execution (Monitors vice CSPs) for making updates.
7. More timely and accurate data in the database.

RICs

PDC 1243 “The Last of the RICs”

PDC 1046: RIC & DoDAAC Relationship

PDC 1116: CTR DoDAAC Unique to a Contract

PDC 1212: End Contract PoP Date

- *We will run out.*
- *The problem is a matter of simple math…*
- 3 digits = 29,808 permutations
- ***IF*** a RIC continues to be used to identify locations of resources to fulfill a requirement, 29,000 is not enough.
- The RIC was intended to afford a means of vectoring a transaction to a “node,” without taking up too many record positions within an 80cc transaction. That “node” was associated to a DoDAAC.
- The RIC is now being used as a way to identify a “holder” of inventory, ***and*** as the basis of all routing of transactions, be they MILS or even in ERPs via the Plant Code

Continued reliance upon the RIC will restrict modernization.

Output

How systems obtain/maintain DoDAAD data

Background

- **OSD GFP WG Data Call of 2013 identified the problem.**
- **DoDAAD data is unsecure and in the open.**
- **There are only FIVE ways of getting DoDAAD data:**
  - **Data Replication**
  - **Web Services**
  - **Secure File Transfer Protocol**
  - **eDAASINQ (TA_ & delimited downloads, manual queries)**
  - **DAASINQ (single query print)**

Goal: Point-to-point data management at the enterprise level.

- **Reengineering the DoDAAD (2005) was the first step.**
- **ADC 1143 was the next step.**

Output

How systems obtain/maintain DoDAAD data

- **Next Steps:**
  1. Identify Consumer Systems.
  2. Identify where those systems are getting the data.
  3. Identify how those systems are getting the data.
  4. Identify how those systems are maintaining the data.
  5. Create plan(s) to get data to those systems via a web service.
  6. Migration plan for existing Replication accounts to Web Services.

PDC 1196 GSA Bureau Codes

- GSA's Customer Address File (CAF) has existed almost as long as the DoDAAD.
- Contains data unique to GSA.
- GSA Bureau Codes are used for internal GSA billing.
- At one time, they were linked to the DoD MAJCOM code in the DoDAAD.
- Need to realign these codes for GSA use and de-conflict with MAJCOM.
- Cannot move forward with this until Federal Agencies stop using the MAJCOM as a Sub Tier.
- Will also allow DoD to use MAJCOM for its original intent without it being "hijacked" by unforeseen use as a temporary, "pseudo" sub tier for the Federal Agencies.

Discrete & Enhanced Data

- As part of the mandate in DODD 8190.1 to migrate from legacy MILS to Electronic Data Interchange Standards, it is necessary to adapt that same migration from legacy DoDAAD data (i.e., MILS-based rules) to use of discrete data elements that enable modernization and the ability to referentially derive data.

Navy

T3_ADDR1	T3_ADDR2	T3_ADDR3		T3_ADDR4		ADSN_FSN
DEFENSE FINANCE AND ACCOUNTING SERV	CLEVELAND-CHARLESTON	P O BOX 998022	N68892	CLEVELAND	OH 44199-8022	N68892

USAF

ACCTG DISB STA NR 667100	DFAS LI JAQBDD	27 ARKANSAS RD		LIMESTONE	ME 04751-6216	_____

Army

DFAS INDIANAPOLIS (GFEBS) 21001	8899 E. 56TH STREET	INDIANAPOLIS	IN 46249-3120			21001

We need to start using discrete data fields instead of imbedding data in TAC lines.

Discrete & Enhanced Data

TA1 Output

Header	CC	Explanation
Document Identifier	1-3	TA_
Routing Identifier	4-6	RIC
Type of Address	7	TAC
Activity Address	8-13	DoDAAC
Clear-Text Name And Address	14-48	35 character line of TAC
Air Terminal	49-51	3-digit APOD
Standard Point Location Code	52-57	6-digit SPLC (which is actually 9 digits)
Effective date	58-62	Date change to be effected
Change Number	63-66	DAASC controlled.
Break Bulk Point	67-72	DoDAAC of BBP
Port Designator	73-75	3-digit WPOD
Multiuse	76	User defined (1 digit)
Blank	77-79	Reserved for future use
Line Number	80	Enter line sequence number beginning with 1.

*There are currently **84** data elements in use by DoD.*
*Only **21** are carried in a TA1 version of DoDAAD data output.*

Here's what you're missing:

UIC, ***AUTHORITY_CODE***, MAJ_COMMAND, COCOM, CREATE_DATE, LAST_UPDATE, PROCUREMENT, CGAC, SUB TIER, MESSAGE_ENTRY, FUNDING OFFICE, ORG_TYPE_CD, CTR, T1_ADDR4, T1_ADDR5, T1_CITY, T1_STATE_A, T1_STATE_N, T1_ZIP, T1_CNTRY_2, T1_CNTRY_3, T1_IPC, T1_CNTRY_MILS, T1_CNTRY_FIPS, T1_CNTRY_FMS, T2_ADDR4, T2_ADDR5, T2_CITY, T2_STATE_A, T2_STATE_N, T2_ZIP, T2_CNTRY_2, T2_CNTRY_3, T2_IPC, T2_CNTRY_MILS, T2_CNTRY_FIPS, T2_CNTRY_FMS, T3_ADDR4, T3_ADDR5, ***ADSN_FSN***, T3_CITY, T3_STATE_A, T3_STATE_N, T3_ZIP, T3_CNTRY_2, T3_CNTRY_3, T3_IPC, T3_CNTRY_MILS, T3_CNTRY_FIPS, T3_CNTRY_FMS, CCP, ALOC, BLOC, CONUS_OCONUS, CONTRACT_NO, CAGE_CODE, CONT_EXP_DTE, CONT_ADMIN_OFF, CONT_SVC_AGCY, POC, PHONE, EMAIL, NOTES, DELIND, DEMAND_CHAIN, DIST_CD, T1_CHGNO, T2_CHGNO, T3_CHGNO,
and ALL GSA Data Elements!

Discrete & Enhanced Data
Action Item

- Services need to identify instances in their own internal processes where data is being imbedded (e.g., MILS) instead of using discrete fields, and document them as service-unique processing rules.

- Services should identify instances where discrete fields could be used.

- Services should always be actively looking at ways to modernize the DoDAAD to proffer new fields that could harness the power and functionality of the database.