

Defense Cost and Resource Center



Contractor Cost and Software Data Reporting

*Ron Lile
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A collage of various military and defense-related images, including a satellite, a stealth bomber, a rocket launch, a tank, a helicopter, a jet fighter, a submarine, and a large transport aircraft.

**The On-line
DoD Cost
Research
Library**

Enhancing DoD Cost Analysis

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Why Collect Contractor Cost Data?

- ◆ Provide basis of cost estimates of future systems
 - Long and painful DoD experience has shown that “actual” cost of producing systems are, by far, the best basis for cost estimates
- ◆ To be useful for this purpose, definitionally consistent historical data are needed
- ◆ CCDRs are DoD’s only systemic mechanism for capturing actual data



Goal: Collect Data That Are

- ◆ Comparable
- ◆ Meaningful
- ◆ Parsimonious
- ◆ Transparent
- ◆ Accurate
- ◆ Auditable



DoD's CCDR History

- ◆ Over 40 years ago, DoD committed to collecting actual cost data on DoD programs
- ◆ In the early 1990s, the CCDR came under criticism by contractors and the DoD Inspector General as burdensome
- ◆ Dr. Kaminski (OUSD (A&T)) approved a CCDR Re-engineering strategy in a 1996 policy memorandum
 - Chartered a central CCDR office to continue re-engineering and oversee CCDR submissions
 - Service acquisition executives agreed that A&T, PA&E and services would *each provide a “person”* for the CCDR office
 - Made significant changes to CCDR collection system



Changes Since 1996 Policy Revision

- ◆ Recent enlargement of CAIG customer base:
 - USD(AT&L) (Ships)
 - Missile Defense Agency
 - Space
 - USD(I)
 - ASD(C3I)
- ◆ Addition of Software Resource Data Reporting
- ◆ At the same time, DoD acquisition has changed
 - Acquisition reform, evolutionary acquisition, etc
 - Less prescribed burdens on program offices and contractors
- ◆ Crisis in DCARC Resources
 - Services are unable to support the DCARC
 - Software resource data collection approved; will require additional effort
 - Added CAIG scope consequences have yet to be faced



Current ACAT 1 CCDR Status

Pre-MDAP Programs	Pre-Milestone B Programs	Active Programs w/CAIG Approved CSDR Plans & Incoming Data	Active Programs w/Program Office Engaged in CSDR Plan Development	Active Programs w/CAIG Approved CSDR Plans & Data Issues	Active Programs w/o CAIG Approved CSDR Plans & Data Issues	Programs w/CAIG Approved Waivers	Post MDAP Programs
ACS*** ADS AOC-WS B-2 RPP BAMS CH-53X CM*** DCGS ARMY E/A-18G** E-10A GCCS-AF GCSS-A JLENS JOINT UCAS JPALS JTRS CLUSTER 3 JTRS CLUSTER 4 KC-767 KI LCS LHA(R) MKV MMA** MPP(F) MPS NATO SATCOM PREDATOR B PRV SBR** SBSS SDB** SM-6 (ERAM)** T-AOE(X) TSAT* VXX	ABB ABL COBRA JUDY* CVN-21 HPCM JTRS CLUSTER 5 MEADS** MP RTIP* MUOS* STSS T-AKE	AARGM (SDD) AESA ATIRCM/CMWS C-130 AMP C-5 RERP E-2C REPROD FMTV HIMARS JAVELIN JSTARS JTRS WAVEFORMS JTRS CLUSTER 1 LONGBOW HELLFIRE MH-60S STRYKER T-45 TS TAC TOMAHAWK WIN-T*	AEGIS BMD E-2C ADV Hawkeye GMRLS (LRIP) USMC H-1 (PROD)	AAV AEHF AWACS RSIP B-1 CMUP CEC CH-47F DD(X) F-35 FBCB2 FCS GBS GLOBAL HAWK GMD JASSM (EMD) JDAM (EMD) JSOW MCS (ATCCS) MH-60R MM III GRP NAVSTAR GPS NPOESS PATRIOT PAC-3 RAH-66 SBIRS HIGH THAAD UH-60M V-22	ABRAMS UPGRADE AIM-9X AMRAAM ASDS B-2A BRADLEY UPGRADE C-17A CVN-77 DDG 51 EXCALIBUR F/A-18 E/F F/A-22 JPATS (PROD) LAND WARRIOR LHD 1 LONGBOW APACHE LPD-17 MM III PRP NESP SM 2 SSGN SSN 774 TRIDENT II	CHEM DEMIL C-130J CVN-77 EELV JASSM (LRIP) JDAM (LRIP) JPATS (EMD) MIDS-LVT NAS WGS	AV-8B CGS DMSP MILSTAR SMART T SQQ-89 TITAN IV
35	11	18	4	27	23	10	7
TOTAL PROGRAMS	135						
AT&L	94						
INTEL	17						
MDA	10						
SPACE	14						

*-CAIG Approved Program CSDR Plan

**-Program Office engaged in Program CSDR Plan Development

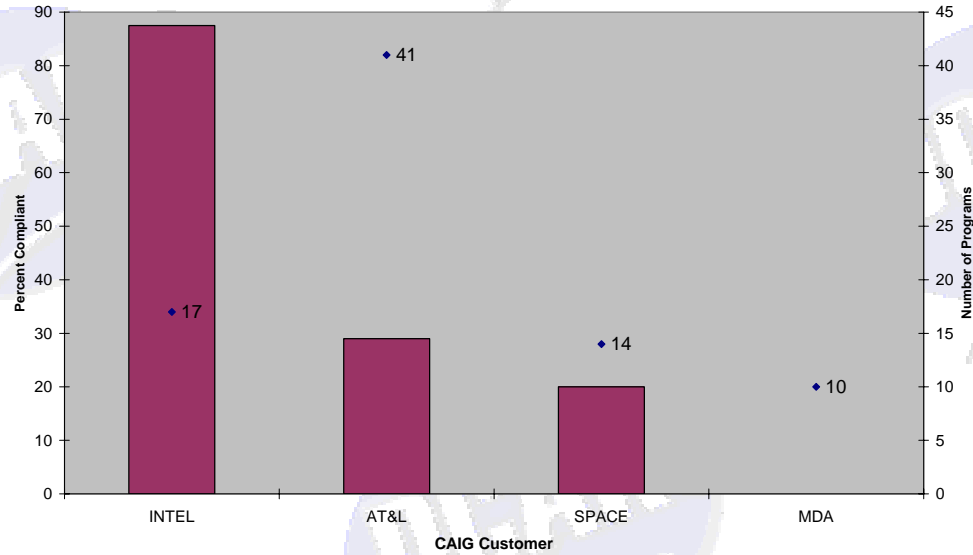
***-CARD missing CSDR Plans. Program Office non-responsive

Programs Never Designated ACAT iD

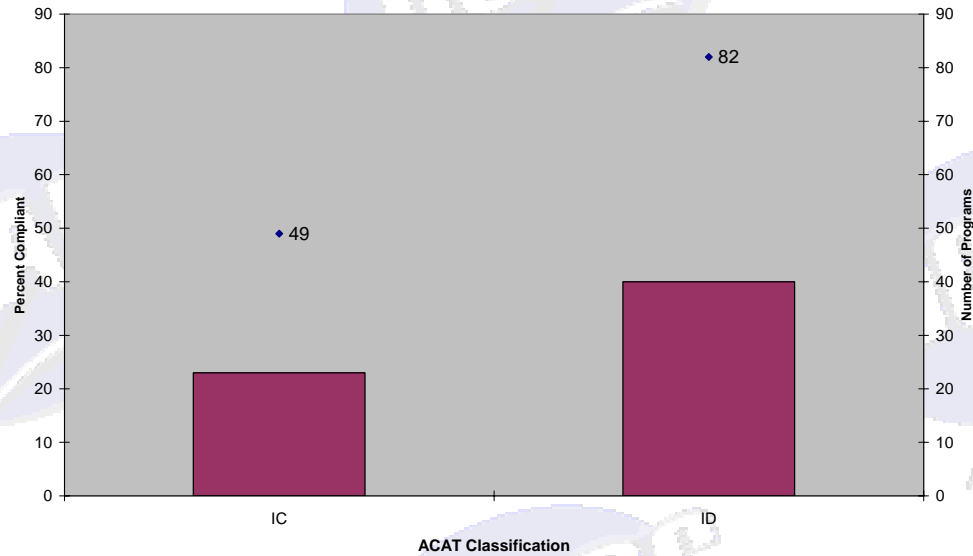
Note: Data based on USD(AT&L) Memo dated July 1, 2003 re Addendum to FY2003 MDAP Lists

CCDR Compliance

- ◆ By CAIG Customer

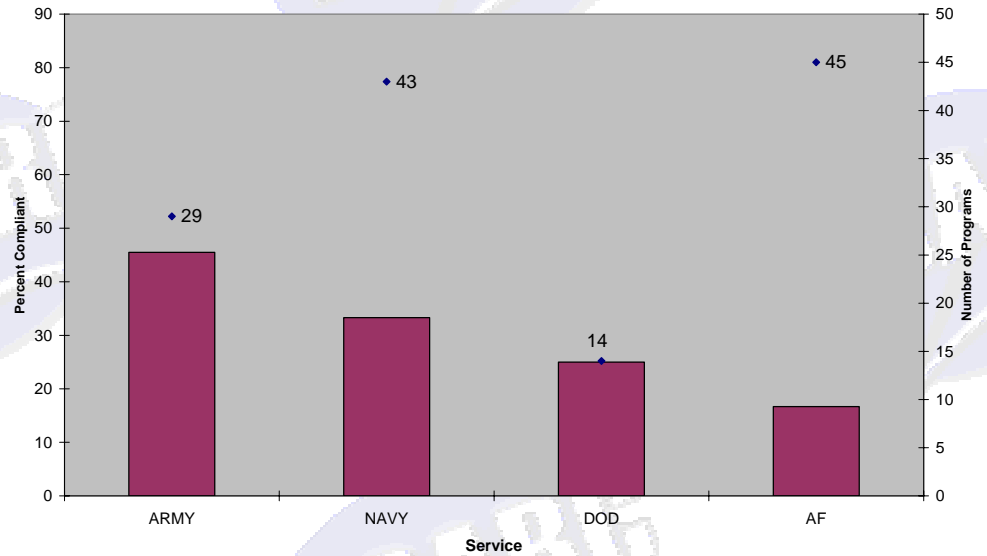


- ◆ By ACAT

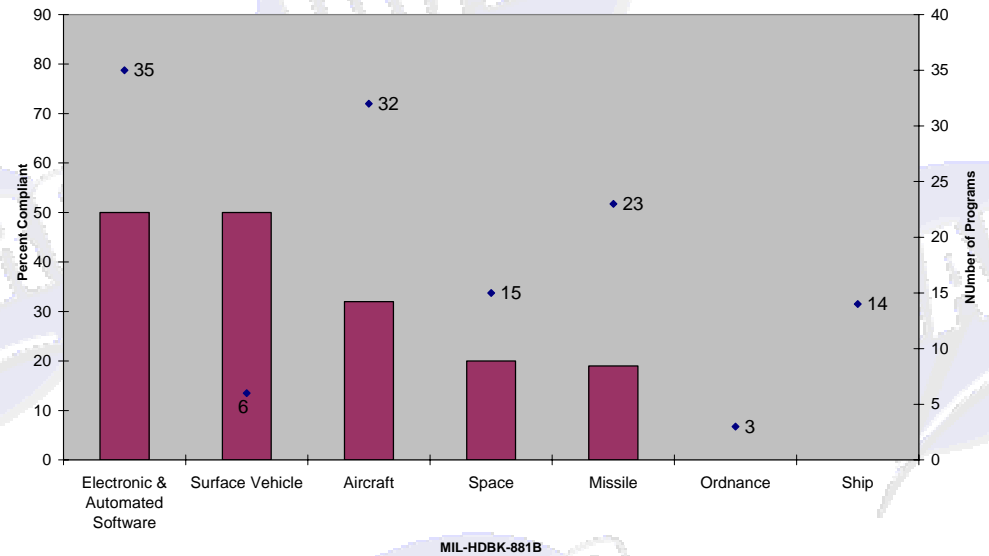


CCDR Compliance

◆ By Service



◆ By MIL-HDBK-881B



Overall Issues

- ◆ Institutional Bias against CCDRs
 - Recurring effort to justify CCDRs to PMs in light of on-going Earned Value Reporting
 - Program Managers not fully endorsing CCDRs
- ◆ MIL-HNBK 881 WBS is outdated
- ◆ Constant Struggle between IPT vs Product Oriented WBS Reporting Structures
- ◆ Bottom line:
 - Program Managers: *Not Interested in CCDRs*
 - Defense Contracting Officials: *Uninformed*
 - Material Developers: *Do what PMs want*

Recent Examples

- ◆ HIMARS
 - Contractor claimed the could not report CCDR data as being asked
 - DCARC requested, from DCAA/DCMA, contractor's EVMS documentation
 - Contractor changed position
 - Review of contractor's EVMS documentation showed EVMS set up identical to CCDR structure being asked
- ◆ CH-47F
 - Contractor already reporting data in IPT structure
 - Contractor asked to map into CCDR product-oriented WBS
 - Contractor claimed effort would be \$18M
 - DCARC requested estimate be place on company letterhead and signed
 - Contractor changed position—will map free of charge
- ◆ SM-6
 - Government PM asked for 325 line IPT reporting structure
 - Currently shifted to product-oriented WBS and 190 lines
 - Goal: an approx 75 line product-oriented WBS (like SM-3)

Internal DCARC Actions Taken

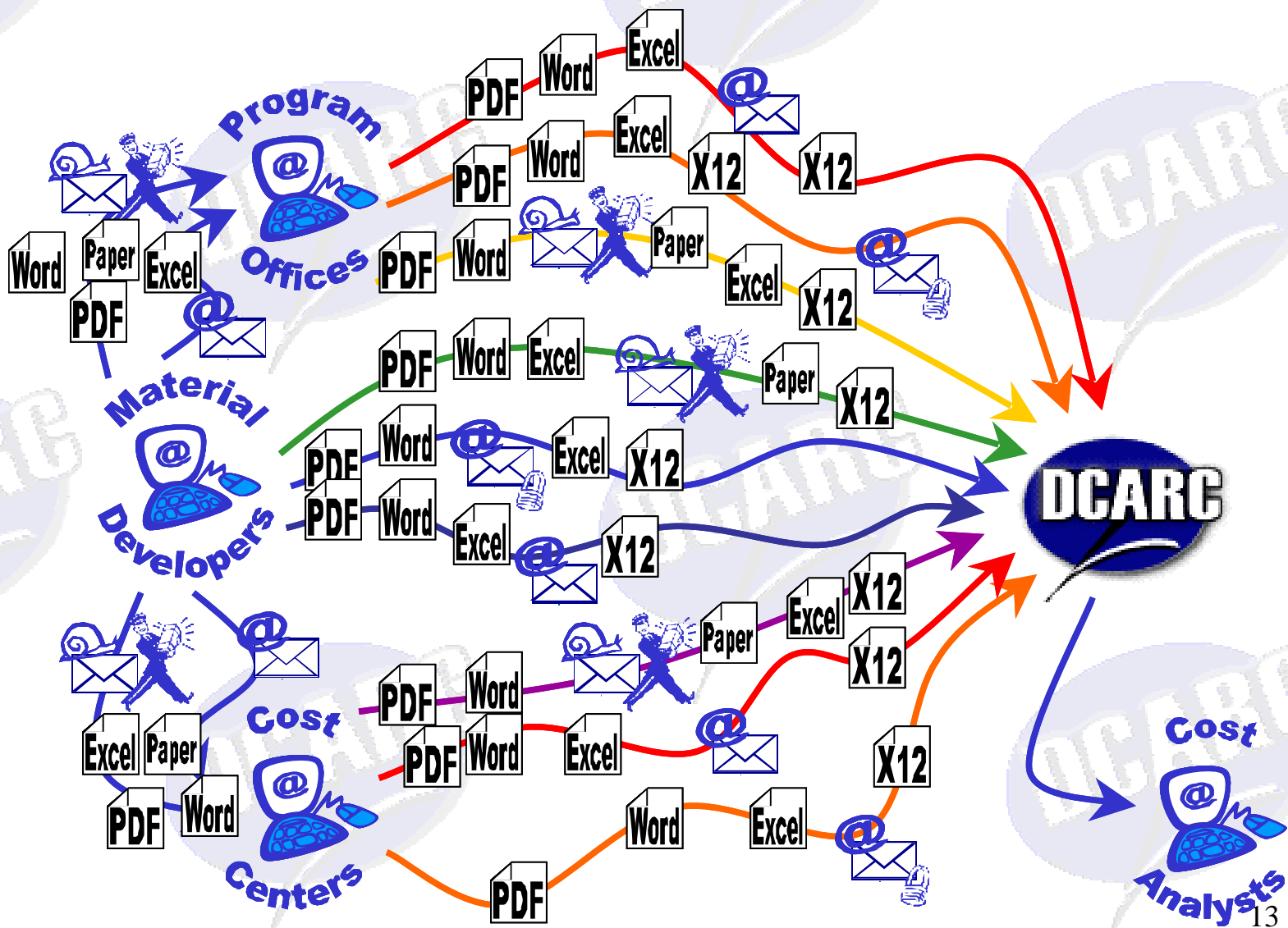
- ◆ Shifted resources towards analytical activities
 - Cost and Software Data Reporting (CSDR) Plans
 - Validation of submissions
 - Tracking compliance
 - Starting SRDR training
- ◆ IT activities focused on three main areas
 - Data/System access (i.e., helpdesk, certificates)
 - Data collection (i.e., pre-processor, validator, XML)
 - Automating business process (i.e., eRooms)

Full Compliance with CSDR Policy is the goal

DACIMS QA Effort

- ◆ As of September 30, 2002:
 - Only ~18,000 CCDR documents had gone through a quality assurance (QA) check
 - QA check, however, did not have standardized/normalized entries
 - No consistency across libraries
- ◆ As of December 31, 2003
 - Revised basis of meta-data classification to military designation system standards per MIL-HDBK881 category
 - Standardized/normalized fields across & within libraries
 - Completed a more rigorous and aggressive QA of:
 - Cost Research Bibliography Library
 - Automated Cost Databases
 - ~40,000 CCDRs documents (100%)
 - ~26,000 CCDRs remain
 - Finishing the 1200 documents in the Cost Research Library
 - ***Result: Much easier to find reports in the CCDR Library***

CCDR Submissions Today



Our Short Term Goal



DCARC

1 Means of transmission:

Secure Email

2 or 3 Formats:

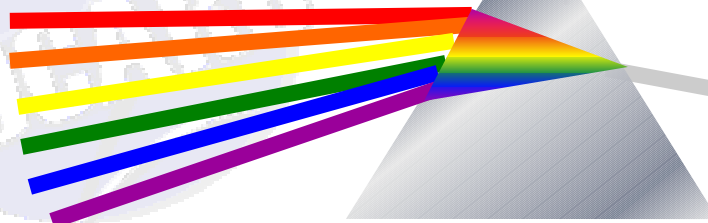
Excel, X12, XML



Submission Address: ccdrpo@osd.mil
Information Address: dcarcweb@osd.mil

The Future is XML

Material
Developers



XML

DCARC

- ◆ Started Industry Conversations
 - May 2003: Lockheed Martin Ft Worth
 - July 2003: WINSIGHT
 - ????

Pre-Processor & Validator

- ◆ The CCDR XML standards will replace the CCDR Electronic Data Interchange (EDI) standard.
- ◆ Each CCDR XML structure is defined by Report Group:
 - AUG 96
 - AUG 00
 - MAR 03
- ◆ The new Pre-Processor 2.0 and the new Validator 3.0
 - Will accept CCDR XML data
 - Validation Rule Categories:
 - Calculations
 - Data Links
 - Data Types
 - Meta-Data
 - Conditional
 - Unique

eRoom Features

- ◆ Shared Spaces (by project or process)
- ◆ Access Control
- ◆ Change Notification
- ◆ Version Tracking
- ◆ Project Calendars
- ◆ Discussion Forums
- ◆ Simple Databases
- ◆ Workflow



External Steps Being Taken

- ◆ Closer coordination with OSD(AT&L)
 - Acquisition Management
 - Already in progress
 - Defense Procurement & Acquisition Policy
- ◆ Implement “intent” of previous agreement
 - AFCAA in process of bringing funds to DCARC
 - MDA promised funds or person
- ◆ Include status of CCDR in periodic reports
 - DAES Assessments started in January 2004
- ◆ Update CAIG and CCDR Policy and Procedures
 - Already in progress
- ◆ Strengthen CCDR requirements and language

The DoD must emphasize that CCDRs are important

Where We Are Today

- ◆ Launched in directions that are beneficial and consistent with our core mission and our vision
 - Entire team is committed to both our mission and vision; also committed to continuous re-engineering
- ◆ Starting to see improvements
 - Developing CCDR plans and monitoring compliance
 - Senior DoD leadership getting involved
- ◆ Challenges
 - Coordination of efforts
 - Resource constraints
 - *Primarily people*

