



The Defense Cost & Resource Center

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February 2003

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

**Defense Cost and Resource Center
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A collage of various military and defense-related images, including a satellite in space, a stealth bomber, a rocket launch, a tank, a military vehicle, and various aircraft.

Our Mission & Vision

Become **THE** comprehensive,
readily usable, secure,
high quality source of
weapon system cost information
for DoD analysts

One-stop shop for cost analysts



DoD Firewall

DACIMS Firewall

Internal PA&E Systems

DACIMS
User Search/Query
Interface to
Unclassified
Systems

CCDR Data Library

V2.1
Current System
2 Libraries
1 Search Engine

Cost Research
Document
Library

Completed in FY01

Unclassified
Internet

- V2.X**
DACIMS Automated Tools
 - V2.2**
Other Data Sources:
Card Catalog
Software Metrics
 - V2.3**
SAR Cost Growth Database
 - V2.4**
Automated Cost Database (ACDB)
- FY03 Objectives

Future Releases will Interface with External DoD Systems

V3.0
Operations & Support Cost Data Systems

Army Air Navy Force

C4I Cost Data

Still in conceptual stages

System Databases

Army Air Navy Force

Not currently Web-enabled

Objective
Improve access to data
...not replace existing systems



Historical \$\$\$

CCDR Database

New Weapons Systems

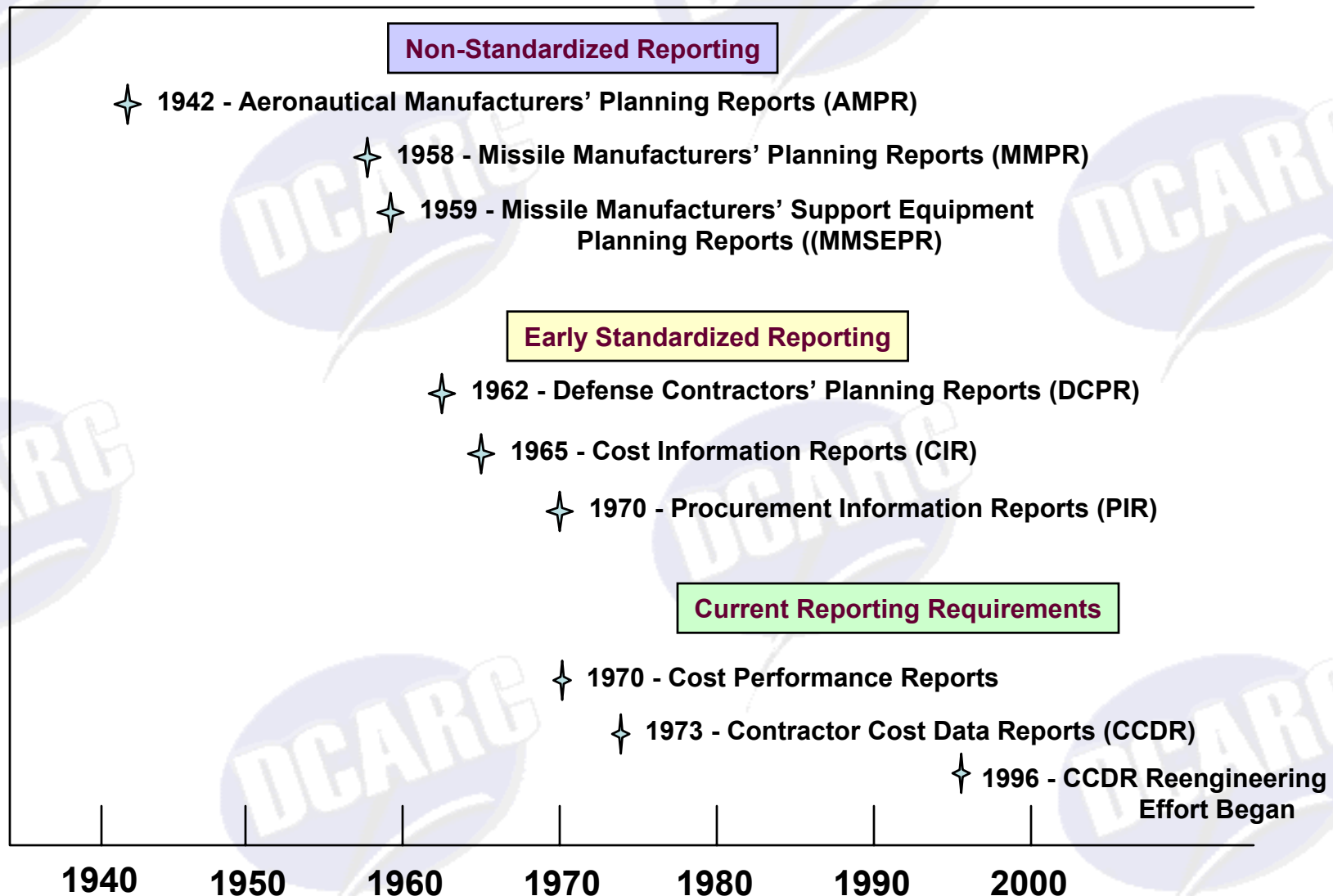
Cost Analyst

Estimates

Estimates

\$\$\$

History of DoD Cost Reporting



CCDR Mission & Objectives

- Mission
 - To collect historical Major Defense Acquisition Program cost data in a joint service environment and make those data available for use by authorized government analysts to estimate the cost of ongoing and future government programs, particularly DoD weapon systems.
- Objectives
 - Make CCDR reporting as inexpensive and least disruptive as possible for contractors.
 - Provide wide availability of CCDR data to legitimate government users.
 - Maintain integrity and accuracy of data collected.
 - Improve quality of data reported by industry.

Primary Objective:

Ensure that DoD cost estimates provided to senior management reflect as accurately as possible DoD's cost experience.

Before and After Re-engineering

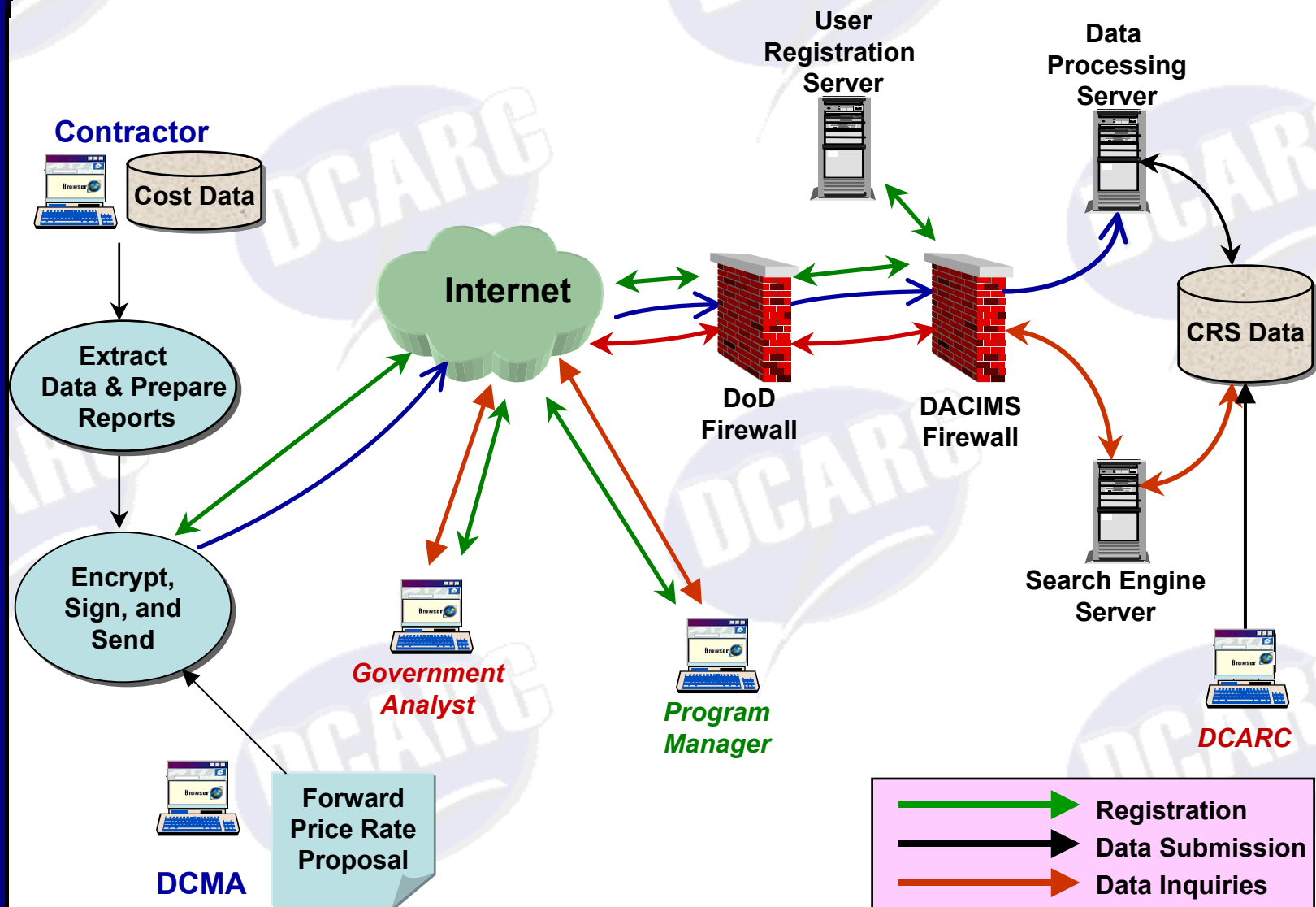


36,000 Paper Records



Fully Automated, Content
Searchable Database

CCDR System



CCDR Library

As of January 21, 2003

MIL HDBK 881 Category	# of Reports
Aircraft	17761
Missile	13311
Electronic/Automated Software	4810
Space	1570
Ordnance	816
Surface Vehicle	601
Ship	73
Other	441
Grand Total	39383

Current Data Collection Efforts

As of January 23, 2003

- Currently 96 programs being tracked
 - Not shown: Pre-MDAP (10), Post-MDAP (6), Pre-MS B (7)

ACTIVE PROGRAMS	PLANS IN PROGRESS	APPROVED PLANS NO DATA COLLECT	PROGRAMS WITH NO PLANS	PROGRAMS WITH WAIVERS
AESA AV-8B REMANUFACTURE B-1 CMUP B-2A BLACKHAWK UPGRADE BMDS C-130 AMP C-5 RERP CEC CH-47F COMANCHE DD(X) E-2C REPRODUCTION F/A-18 E/F F-22 F414 ENGINE FBCB2 FMTV JSF JSTARS LONGBOW HELLFIRE MH-60S NAVSTAR GPS SMART-T TAC TOMAHAWK THAAD	AAV ABRAMS UPGRADE ATACMS BAT BRADLEY UPGRADE F135 ENGINE F136 ENGINE F405 ENGINE GLOBAL HAWK GMLRS HIMARS STRYKER JAVELIN JSOW JTRS CLUSTER I LPD-17 MEADS PATRIOT PAC-3 T406 ENGINE T56 ENGINE USMC H-1 UPGRADE V-22	AAV AEHF AWACS RSIP (E-3) LONGBOW APACHE MCS (ATCCS) MINUTEMAN III GRP NPOESS SBIRS-HIGH T700 ENGINE	AIM-9X AMRAAM ATIRCM/CMWS F402 ENGINE GBS GPS OCS JSIMS LAND WARRIOR MH-60R MILSTAR MINUTEMAN III PRP NESF SM-2 T55 ENGINE TRIDENT II	C-130J C-17A CHEM DEMIL EELV JASSM JDAM JPATS MIDS-LVT NAS WGS
10	25	16	8	15

Summary

- Over 90% of all Programs are non-compliant due to the following:
 - Program versus Contract Plans
 - Most Programs develop only contract plans
 - GFE contracts (Engines, Cockpits, etc) omitted from CCDR requirements
 - Subcontract Plans
 - Prime contractors do not roll down CCDR requirements
 - Program Managers
 - Do not submit CCDR Plans and/or WBS dictionaries with CARDS
 - Do not forward RFP CCDR requirements language to DCARC
 - CDRLs and WBS dictionaries are not forwarded to DCARC
 - CCDRs are approved by Program Office prior to DCARC validation
 - Defense Contracting Officials
 - Release RFP without CCDR requirements
 - Omit or delete CCDR Requirements from contracts
 - Allow Contractor formatted reporting
 - Require no approval of CCDRs
 - Organizational Consistency
 - Reporting not consistent with various contractor locations

DoD Acquisition Policy

- DoDD 5000.1 “Defense Acquisition System”
- DoDI 5000.2 “Operation of the Defense Acquisition System”
- DoD 5000.2-R “Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information Systems (MAIS)”
- Interim Guidance contains requirements for
 - ICE, CAIG, CCDR, Software Metrics, AOA

**Superseded by
Interim Guidance**

CCDR Requirements

- Required on all ACAT I Programs
 - Required on all contracts and subcontracts greater than \$50M (FY02)
 - Required on high-risk or high interest contracts between \$7M-\$50M (FY02)
- 1921-2 (Progress Curve Report) – Required only for high quantity or high risk from Phase A (Concept and Technology Development) through LRIP in Phase C

Guidance - Implementing Policy

- DoD 5000.4 “OSD Cost Analysis Improvement Group (CAIG)”
- DoD 5000.4-M-1 – The OADR Manual
- MIL-HDBK-881 – Work Breakdown Structures

Going to Change



Software Metrics Data

- Cost community needs historical data on software intensive systems to develop credible estimates of future similar systems
- Proposed to collect software data on all contracts within Acquisition Category (ACAT I) with software content that is expected to exceed \$25 million (FY 2002\$)
- Software data contains four basic metrics: size, labor resources, schedule, and quality
- Coordinated with government (cost centers and various PMs) and industry
- Effective on all applicable ACAT I contracts (or contract mods) after October 30, 2002



DACIMS 2.X Tools

- Cost Information Resource Tracking System (CIRTS)
 - Relational database architecture complete
 - Reports capability complete
 - Populating with data
- Validation Tool
 - Version 1.0 ready
 - Limited mathematical checks
 - Version 2.0 in development
 - Complete metadata and mathematical checks
- Pre-Processor
 - New version in development
 - Manual entry and Batch loads
 - Output in Standard Format
 - Validation tool integral part
- User Surveys



Business Process Review

- Purpose
 - understand the existing process
 - identify recommendations, if needed, to improve the process
 - implement system to track and monitor the process
- Approach
 - interview functional experts to identify:
 - “as is” and “to be” processes
 - nonrecurring tasks and related schedule and resources
 - document results
 - identify areas for improvement
 - plan and implement recommendations

Types of Activities

- Analyses
 - developing CCDR Plans
 - receiving and validating CCDR Reports
 - other activities
- Automation
 - developing hardware and software requirements
 - software development, testing, and acceptance
- Support
 - register DACIMS users
 - provide customer support
 - DACIMS computer support
- Policy and Training
 - lead policy discussions
 - provide training

Developing CCDDR Plans

- “As is” process:
 - ***primarily reactive: plans are developed late in the process***
 - when proactive, prepares program/contract plan
- “To be” process:
 - develop and implement a semi-automated tracking system:
 - Ensure plans are in place for inclusion in RFPs
 - close coordination with CAIG, USD/AT&L and Service SAE
 - provide early identification of programs and CCDDR requirements

Executing CCDR Plans

- “As is” Process
 - *multiple* formats, and *several different* transmission means
 - *difficult* to be checked for compliance
 - *no* standard notification procedures
- “To be” Process
 - develop and implement a semi-automated tracking system:
 - include event dates, plan reporting requirements, and program status
 - automatic notification of acceptance, rejections, and data availability
 - stream line plan/report formats and transmission paths
 - expand automated validation beyond mathematical calculations

Policy/Training

- “As is” Process
 - *informally established* and *not coordinated* with all stakeholders
 - training requirements, course content, target audience, and schedule
 - *limited* internal training
 - strategic planning and marketing have been *ad hoc* and *limited*
 - responsible for WBS-based reporting *without* policy responsibility
- “To be” Process
 - systematically develop and implement training program
 - survey stakeholders
 - expand delivery methods (e.g., computer based, DAU)
 - develop and implement strategic and marketing plans
 - coordinate with USD/AT&L to transfer WBS policy responsibility

Key Focus Group Issues

- CCDDR planning and reporting issues
- Interim DoD Directive 5000 guidance including new software metrics reporting requirements beginning October 30, 2002
- New CCDDR tools and electronic reporting
- Revised CCDDR report formats and the new CCDDR Manual
- CCDDR data access for support contractors

CCDR Reporting Summary

- Past and current practices
 - CCDR submitted in many formats and paths:
 - CCDRs submitted to various Gov't agencies instead of DCARC
- Current Process isn't standardized
- Events forcing change
 - Some are out of our control
- Need to consolidate data submission paths & formats
 - One or two formats
 - One or two paths
- Recognize the need for a phase-in period
 - individually negotiated time frame

CCDR Manual Summary

- Schedule
 - March 12th: revised draft manual will be posted to web site
 - April 1st: FG comments deadline
 - April 30th: Formal coordination begins
 - June 1st: approved manual on web site
 - June 1st: forms and manual become effective
- Changes:
 - Manual language has been strengthened
 - Documents significant policy changes including
 - Mandatory electronic reporting for new plans and reports
 - Separate program, contract, and subcontract plans must be prepared and submitted to CAIG for approval
 - Subcontractors must report directly to DCARC
 - Implementation of new DD Form 1921-1 effective on October 1, 2003

CCDR Data Access Summary

- Current access for Support Contractors is limited
 - Memo from government agency
 - Requires NDAs from each material developer
 - Language in statement of work
 - No internet access; Data on CD
 - GC approved
- Government continues to outsource much of its estimating
- Possible changes
 - Stronger CCDR language in statement of work
 - List of support contractors and specific work
 - Restricted and monitored internet access from government computers
 - Get GC buy in

2003 Training Schedule

- Los Angeles February 26
- Dallas/Ft Worth Late March
- Boeing (Chicago) April 9-11
- Ft Monmouth, NJ April 23-24
- Raytheon (Boston) May 7-8
- Dayton, OH June 5-6
- Washington, DC July 9-10
- TACOM TBD
- Northrop Grumman TBD

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
- Some weaknesses in current execution
 - Developing CCDR plans and monitoring compliance
 - Visibility to systems commands and program offices
- Other challenges
 - Resource constraints
 - **Primarily people**
 - Technical risk