



# **The Transforming Army and its Impact on Military Construction (MILCON) Programming**

## **Tri-Service Cost Engineering Conference**



# Presentation Parts

Part 1 - Transforming the Programming process

“How it was, how it is now...”

Part 2 - Transforming the DD Form 1391

Development Process and Hot Topics

Part 3 - The DD Form 1391 and Costing



# How it was...

**HQDA**



**Major  
Commands  
(MACOMS**

***All MILCON Projects***

**Installations**

**Installations**

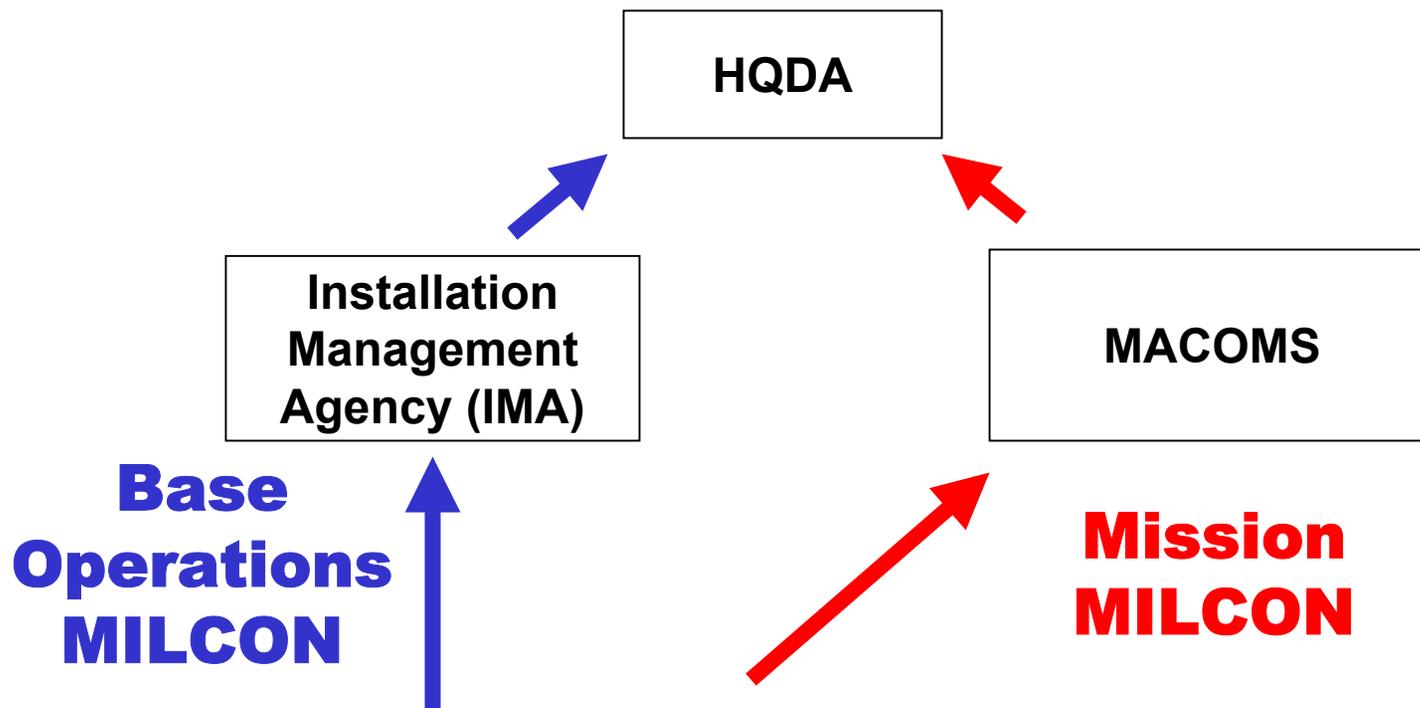
**Installations**

**Installations**

**Installations**



# How it is today...



## Garrison Commanders and **Mission Tenants**





# What types of projects are Mission vs. Base Operations (**DRAFT**)

MISSION

## INDUSTRIAL

- PRODUCTION
- RDTE

## POWER PROJECTION/READINESS

- SURFACED ROADS/TRAILS
- NETWORK RR
- AIRFIELD FACILITIES *DAACGS, FUEL, NAVAIDS*
- AIRFIELD PAVEMENTS
- STRATEGIC MOBILITY *RAILROAD, TRUCKING, INTERMODAL*
- SUPPLY/STORAGE *FUEL, AMMO, GP WAREHOUSE*
- TACTICAL VEHICLE MAINT *MOTOR POOLS & AVN FACILITIES*

## TRAINING SUPPORT

- TRAINING RANGES *SMALL ARMS, MAJOR WEAPON SYSTEMS, NON-LIVE FIRE, ETC*
- MANEUVER TRAINING LANDS
- SIMULATIONS/TRAINING AIDS
- TRAINING INSTRUCTION FACILITIES *BCT/AIT CAMPUSES (TRAINEE BKS), NCOAS/BNOC/ANOC SCHOOLS, LEARNING CENTERS, ORG CLASSROOMS, ETC*

BASOPS

## HOUSING/ADMIN

- ADMIN *GEN, UNIT HQ*
- FAMILY HOUSING
- ENLISTED UPH
- OTHER UPH *BOQ, SEBQ, AT*
- DINING FACILITIES

## COMMUNITY SUPPORT

- YOUTH SERVICE FACILITIES
- PHYSICAL FITNESS
- RECREATION
- COMMUNITY *POSTAL, RELIGIOUS, COURTHOUSE, CONT ED, ETC.*
- PUBLIC SAFETY *LAW ENFORCEMENT, FIRE/RESCUE, AT/FP*
- INFRASTRUCTURE *WATER, SEWER, ELECT, HEAT/COOL, IT, DPW COMPLEX*

## “PURPLE” MISSION

- EXCHANGE FACILITIES
- COMMISSARY
- HOSPITAL/MEDICAL
- DEPENDANT SCHOOLS

NOTES: 1. DISCRIMINATORS:

- FUND SOURCE USED TO PERFORM THE SERVICE IN THE FACILITY
  - AR415-28 FCG PROPONENT.
- SOME COULD BE EITHER MISSION OR BASOPS (*UNIT HQ, TRAINEE BLDGS*)
  - EXCEPTIONS PERMITTED.



# Roles

- The IMA consists of 7 worldwide Regions and a HQ that own the installation real property and through the Garrison Commanders manage installation Base Operations functions
- Mission MACOMs are now installation tenants that the Garrisons support



# IMA Programming Responsibilities

## Garrison Commanders

- Coordinate & identify user requirements
- Gather & validate MCA requirements
- **Prepare, receive, coordinate, sign, release,**  
**and submit MCA DD Forms 1391 to**  
**Regions**



# IMA Programming Responsibilities

## Regional Directors

- Prepare MCA POM/Budget requirements
- Obtain DD Forms 1391 certifications
  - US Army Corps of Engineers
  - Information Systems Engineering Command
- Coordinate with the MACOMs to insure that MILCON requirements have been correctly defined for tenant sponsored projects
- Execute Region certification for all MCA projects
- Program MCA requirements in the Region
- Present and justify MCA Program to Working Board of Directors (Project Review Board)



# MACOM Programming Responsibilities

- Coordinate with Installations, Regions, & ACSIM on MILCON projects and priorities for tenant sponsored projects
- Participate on Board of Directors
- Program Operations and Maintenance Army OMA and Other Procurement Army (OPA) tails for installation tenant sponsored projects



# Office of the Assistant Chief of Staff for Installation Management (ACSIM) Programming Responsibilities

ACSIM Construction Division, Facilities and Housing Directorate (DAIM-FDC) will continue to program and manage MCA projects as in the past.

- The Installation Management Agency provides input on revitalization installation support project priorities.
- MACOM provide input on mission unique project priorities



# Transforming the DD Form 1391 Development Process and Hot Topics



# Transforming the 1391 Process and Hot Topics

- Planning Charrettes
- Certifications
- Sustainable Design
- Demolition



# Planning charrettes

A charrette is a process to insure all scope and work items are identified and costed. Part of the process involves an intensive session designed to gather all critical parties together to develop a complete, **quality**, DD form 1391.

- Centrally funded by ACSIM
- Executing through the Corps
- All FY 07 projects will have a charrette or a validated exception



# Certifications

- Corps of Engineers and Regions are responsible for certifying DD Forms 1391 (with others participating)
  - The certification process was implemented to insure projects are buildable and ready to design
- Corps Divisions generally conduct the certification visits and certify the DD forms (some districts performing the certification function)
- Anticipate certifications will continue in some form supplementing the charrette process



# Certifications cont...

## 1391 signatures/certifications

<u>Documentation Item</u>	<u>TAB</u>	<u>Signature Required</u>	<u>Signature Obtained By</u>
DD Form 1391	A	<b>1.</b> Installation Commander	Installation
Environmental	J	<b>2.</b> Environmental Officer <b>3.</b> Director of Public Works (DPW)	Installation
Anti-Terrorism/ Force Protection (AT/FP)	G	<b>4.</b> Provost Marshall (PM) <b>5.</b> Anti-Terrorism Officer (A-TO) <b>6.</b> Director of Public Works	Installation Installation Installation
Information Systems Cost Estimate (ISCE)	F	<b>7.</b> Director of Information Management (DOIM)	Installation
USACE Certification	B	<b>8.</b> Division/District Engineer	REGION
REGION Certification	C	<b>9.</b> REGION Engineer	REGION
ISEC Certification	F	<b>10.</b> ISEC-FDEO	REGION
CA Analysis (if required)	J	<b>?.</b> DCSR/DRM	Installation



# Sustainable Design

- Meets the needs of the present without compromising the quality of life of future generations.
- Maintains economic growth while producing an absolute minimum of pollution, repairing environmental damages of the past, producing less waste, and extending opportunities to life in a pleasant and healthy environment.
- Meets human needs by maintaining a balance between development, social equality, ecology, and economics
- Demands systematic considerations of environmental impact, energy use, natural resources, economy, and quality of life.
- Has optimal benefit only when addressed at the inception of a project, and throughout the entire life cycle of a project -- from concept to planning, to programming, design, construction, and ownership.



# Sustainable Design cont...

## Spirit Rating Tool

Derived from the US Green Building Council Leadership in Energy and Environmental Design Green Building Rating System

100 point self assessing system

Bronze	25 – 34 pts
Silver	35 – 49 pts
Gold	50 – 75 pts
Platinum	76 – 100 pts

Is there an additional  
Cost for a Gold  
Rating?

IAW Assistant SecArmy for Installations and Housing memo, implement starting FY 06.



# Demolition

- There will be matching square footage of demolition for every square foot of building built with MCA (and listed on the DD form 1391)
- Demolition can be MCA or OMA funded
  - Via MILCON project, Facility Reduction Program, other
- Demolition costs vary greatly
  - “location, location, location”
  - Involve move-arounds?
  - Disposal method (give away, sell, tear down, other?)

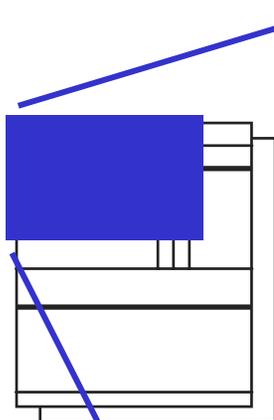


# The DD Form 1391, PAX System and Costing

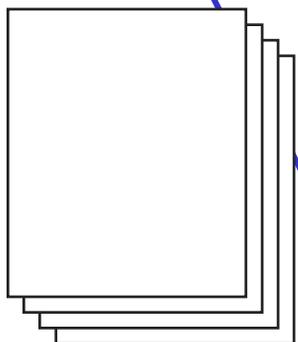


# The DD Form 1391

**DD Form 1391**  
**1391 Processor**  
**(TAB A)**



**Supporting Documentation**  
**1391 Processor**  
**(TABs B-J)**



1. COMPONENT ARMY		FY 2005	50499F S	REVISION DA
3. INSTALLATION AND LOCATION Anniston Army Depot Alabama			LAF=.83	4. PROJECT TITLE Powertrain Componer Facility
5. PROGRAM ELEMENT	6. CATEGORY CODE 214 40	7. PROJECT NUMBER 50499	8. PROJEC	
9. COST ESTIMATES				
ITEM			U/M	QUANTITY
<b>PRIMARY FACILITY</b>				
Component Rebuild Shop, Depot Le			m2	13,239
AT/FP			LS	--
Building Information Systems			LS	--
<b>SUPPORTING FACILITIES</b>				
Electric Service			LS	--
Water, Sewer, Gas			LS	--
Steam And/Or Chilled Water Distr			LS	--
Paving, Walks, Curbs And Gutters			LS	--
Storm Drainage			LS	--
Site Imp( 442) Demo( )			LS	--
Information Systems			LS	--
Antiterrorism/Force Protection			LS	--
Bridges			T.C	--



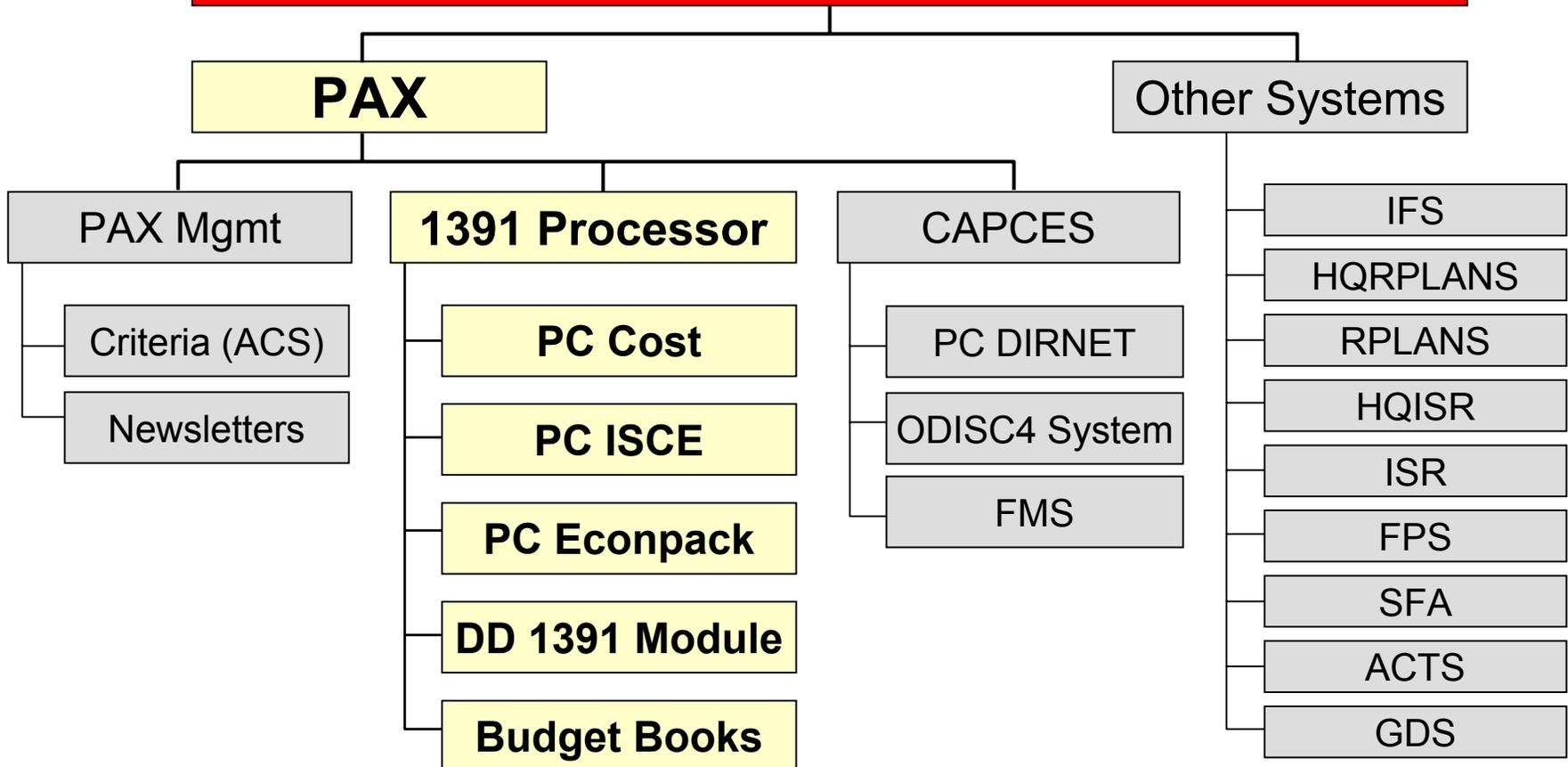
# The PAX System

- The Programming, Administration and Execution System (PAX)
  - is a worldwide system of both Mainframe and PC applications accessed via an internet connection for processing electronic DD forms 1391.
  - <https://pax.mech.disa.mil/>
- The PAX system provides practical and consistent real-time information processing capability



# The PAX System cont...

## MILCON Programming Automation





“A DD Form 1391 should be a..

**..concise, complete, comprehensive,  
logical, and objective form..**

..that includes all the necessary supporting  
documentation.”



# How Long Does it Take..?

“...Approximately **400 hours** of research, data collection and document preparation is needed to “**FULLY**” develop a DD Form 1391....”



# Cost Estimating

(TAB A)



PC Cost

## The importance of a GOOD Initial Cost Estimate

- It serves as a basis for Project Approval
- It is a major factor in how projects are executed

### Great Lies in Estimating

“just give me a quick cost estimate, I won’t hold you to it !”

### Great Lies in Programming

“I can give you more scope and it won’t cost any more !”



# Types of Cost Estimates

- **Programming** (*usually completed by installations*)
  - Estimate based on user defined requirements
  - Estimate based on No Design work
  - Used by MACOM and HQDA for Programming MILCON Requirement
- **Budgetary** (*usually completed by Corps of Engineers*)
  - A Parametric (code 3) or Concept (Code 2) design estimate replaces the initial programming estimate.
  - Used to develop the Army MILCON Budget for project authorization and appropriation.
  - Used as baseline for cost control during project design.
- **Final Design Estimate** (*usually completed by Corps of Engineers*)



# Cost Estimating

**Very Important**

## Rules

- Use standard procedures...
  - ...to achieve a high degree of uniformity, accuracy, and reliability of costs
- Accurately identify all items of construction and the associated costs
- Provide enough detail for a meaningful review (avoid lump sum prices) by Army and OSD
- Guidance located in
  - AR 415-15, DA Pam 415-15, TM 5-800-4, ER 1110-3-1300, AR 415-28, Engineer Instructions, PAX Newsletters, Corps of Engineer Divisions and Districts, other



# Cost Estimating cont...

- Key Elements
  - Category Code
  - Description of work to be accomplished (Tasks)
  - Quantity of work required for each task
  - Cost of each task quantity or unit cost
- Contingencies – 5%
- Supervision, Inspection and Overhead (SIOH)-

**CONUS**  
**MILCON - 5.7%**  
**O&M - 6.5%**



**OCONUS**  
**MILCON - 6.5%**  
**O&M 8.0%**



# Cost Estimating cont...

## Other project costs

- Information Systems - Tab F
- Furniture and Furnishings - Tab E
- Equipment - Tab E



PC ISCE

**Warning...**

- **MCA will usually ONLY pay for those items integral to the facility.**
  - See AR415-15, appendix H for details.
- **Listing items here does not get you the money for those non-MCA funded items. The user must program for those items.**



# Final Exam

Question: What constitutes the Perfect Cost Estimate...

Answer: Depends upon who you ask...

**OACSIM?** – *“Those cost didn’t change 1 cent from the first time we saw the project 1391 until the building was completed.”*

**Contractor?** – *“Oh man, look at all those change orders \$\$\$...”*

**OSD?** – *“All these similar type facilities, regardless of the service, are priced the same and match my cost guide.”*

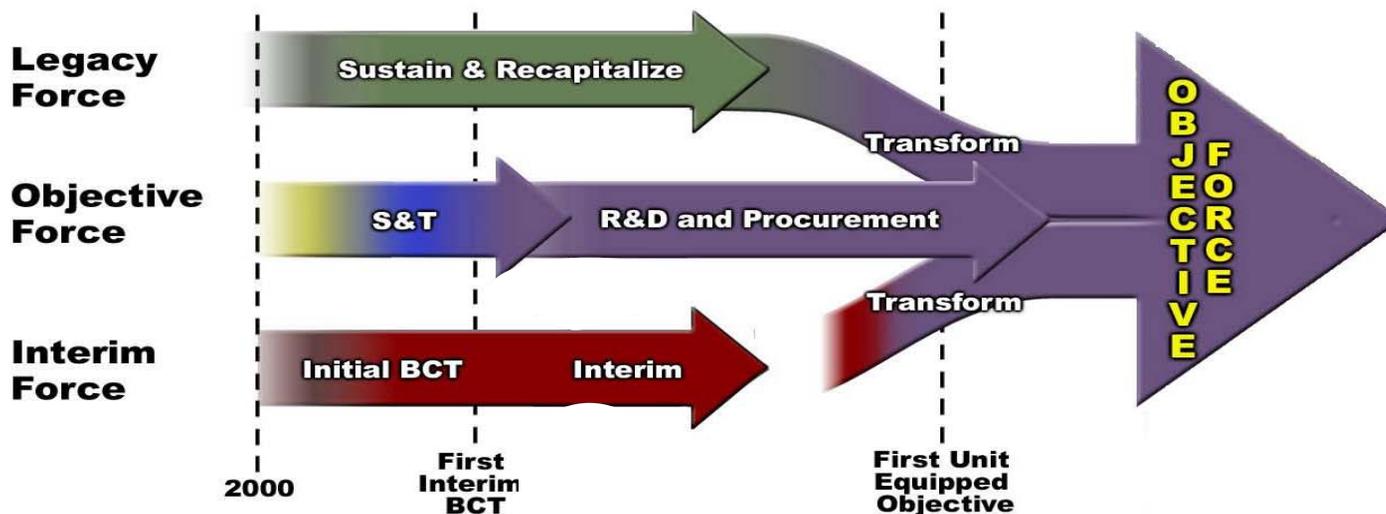


Thank you...

applause accepted



# Army Transformation and Programming



## Programming Timelines

