



# Command Cost Model Document

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## AMC Research, Development and Engineering Command (RDECOM)

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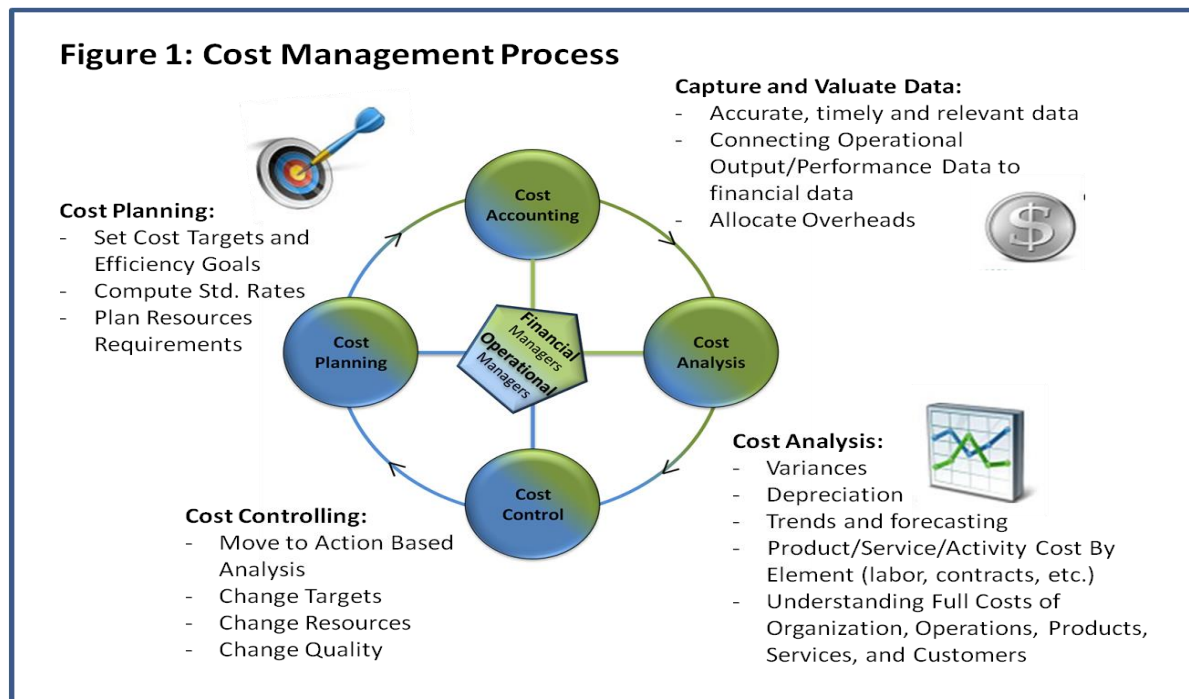
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## Statement of Purpose

The purpose of the *ERP Command Cost Model (CCM)* document (hereinafter the “Cost Model”) is to provide a living document, which contains the necessary information to be utilized as a reference guide to aid in the understanding of how the command’s current Cost Model is represented in the multiple ARMY ERP platforms, such as the General Fund Enterprise Business System (GFEBS), Global Combat Support System (GCSS), and Logistics Modernization Program (LMP) ERPs. Each command’s Cost Model and corresponding utilization of supporting capabilities within the ERP’s has been adapted to meet the requirements of each command and the Army-Wide cost objectives. The Cost Model consists of the defined system master data and supporting transactions necessary to support the Cost Management Process (see Figure 1). Therefore the Cost Model consists of:

- identification of the cost objectives
- definition for the master data elements
- execution of various kinds of planning
- capturing of ‘actuals’
- allocations/cost assignments and corresponding data loads necessary for driver data
- various reporting requirements



The intended audience of this document consists of readers already familiar with the ERP applications and the cost management concepts within the Cost Management Handbook.



## **Command Overview**

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This section of the AMC Command Cost Model document covers the portion of the AMC Cost Model associated with the U.S. Army Research, Development and Engineering Command (RDECOM) only.

RDECOM is the Army's technology leader and developer. RDECOM's team of soldiers, civilian employees and direct contractors are scientists, engineers, and researchers working to provide technology solutions to meet current operational needs as well as researching innovative, breakthrough technologies. RDECOM works in partnership with an extensive network of academic, industry and international partners. RDECOM conducts basic and applied research and technical development across a wide spectrum of focus areas such as, but not limited to, aviation, electronics, communications, ballistics, ammunition systems, clothing, protective equipment, and military automotive. Additionally, RDECOM provides research for chemical, biological, radiological, nuclear, and explosive (CBRNE) threats including emerging threats and naturally occurring threats such as Ebola, bird flu, etc.

## **Cost Management Objectives**

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### **Current Objectives**

RDECOM's current cost objective is to track the costs of organizations and the work efforts those organizations perform.

### **Future Objectives**

As requirements change within the areas of focus, objectives should continually be reviewed to ensure the Cost Model is providing the level of information required to make resource informed decisions and/or provide transparency for external reporting and requirements justifications.

## **Command Master Data**

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### **Cost Centers**

#### **Overview**

Cost Centers (CCs) represent the organizations (e.g. Company A) listed within the Modification Table of Organization and Equipment (MTOE) or Table of Distribution and Allowances (TDAs) entities (e.g. RDT&E PROGRAM & BUDGET). Cost Centers are established to collect and manage costs incurred within an organization for the corresponding capacity output provided (e.g. Labor



Hours). Cost Centers align to the UIC-Paragraph structure of the TDAs or the MTOE structured authorized UICs (e.g. Company A). RDECOM has TDA related Cost Centers only.

## Coding Logic

Currently, RDECOM is utilizing 3\* series Cost Center numbers for the reflection of the organizations. RDECOM will integrate with the Army's Global Combat Support System (GCSS-A) ERP and therefore needs to have Federated 4\* series Cost Centers. RDECOM Cost Centers will be converted to Federated 4\* series Cost Center coding within FY15. To maintain consistency between GFEBs and GCSS-A, Cost Center changes are allowed under specific conditions. Creating a new Cost Center requires a unique combination of the UIC-Paragraph on an approved Force Structure document or a structure Derivative UIC (DUIC) to reflect the MTOE units (e.g. WXXXA0 for Company A).

## Informational Fields

In addition to the Cost Center code, there are many other data elements defined on the Cost Center master data record that are utilized for reporting or interfacing with other systems, such as (but not limited to), Standard Hierarchy, Area of Responsibility, Name 4 and Interface Indicator (utilized if using ATAAPS for time tracking).

## Activity Types

### Overview

Activity Types, (i.e. Resource Pools) describes the kind of capacity of a specified resource within a Cost Center, typically measured in units of time, hours (HRS) or volume (BTUs), etc. Therefore, Activity Types (AcTypes) are used to assign capacity-related costs to consuming cost objects. Activity Types are used to plan, allocate and control costs. Activity Types are categorized as Labor Related versus Non-Labor Related. The most prevalent category is Labor Related which is structured to reflect the different types of Labor Related Resource Pools such as Civilians, Military, etc. Additionally, Non-Labor Related Activity Types are created as needed to reflect the capacity costs of Machines (e.g. Bulldozer \$/Hour) or Facilities (e.g. \$/Sqft).

### Usage & Calculations

RDECOM's main capacity is work force, and therefore Labor Related. The transaction for associating the capacity consumed requires a *quantity* and *rate* to exist for the Cost Center and Activity Type. Refer to Table 1: Summary Utilization of Activity Types that lists a summary of Activity Types utilized by RDECOM.

- Labor Related Activity Types – the Labor Related Activity Types have been defined for the ARMY as a whole, based on various Pay Plans and Series and encompasses all of the kinds of skills provided by labor resources utilized by RDECOM.



- Civilian – For all Civilian related labor charges, the payroll costs remain on the Cost Center where the Primary expense posting occurs. For entities tracking Civilian Labor to products/services, then Civilian Labor Activity Types are utilized to perform time tracking. RDECOM does currently perform Time Tracking for Civilian Labor hours and as such Labor Activity Types are needed to support both the payroll and labor tracking processes.
- Military – Currently, RDECOM is not tracking time related to Military labor hours and output worked within GFEBS.
- Local National – RDECOM does not have Local National (LN) Payroll and therefore does not utilize LN Activity Types.
- Contractor – RDECOM currently does not track Contractor labor hours to outputs.
- Non-Labor Related Activity Types – Currently, RDECOM does not utilize non-Labor Related Activity Types to assign out cost of capacity.

**TABLE 1: SUMMARY UTILIZATION OF ACTIVITY TYPES**

Type	Area	Utilized
Labor	Civilians	Yes
Labor	Military	No
Labor	Local Nationals	No
Labor	Contractors	No
Non-Labor	NA	No

## Internal Orders

### Overview

Orders are a type of cost object utilized to capture the cost of an event (e.g. maintenance request, reason for travel) or a repetitive service (e.g. Military Card Processing). There are various kinds of Orders, such as Internal Orders (IOs) and Plant Maintenance Orders (PMOs). Within each kind of Order there are various Order Types which support the segregation of like-kind events.

### Command Usage

RDECOM utilizes Internal Orders (Order Types ZRDE, ZTAC, ZCEC) within its Cost Model mainly to manage indirect overhead costs utilizing Costing Sheets (see **Error! Reference source not found.**) and the labor variance liquidation process.



## **WBS Elements**

### **Overview**

Work Breakdown Structure (WBS) Elements are utilized to identify the sub-activities required to perform a Project. Additionally, WBS Elements are utilized to support the reimbursable processes (via the Sales Orders or the Direct Charge processes) for services provided within and external to the Army.

### **Command Usage**

The main cost collector for RDECOM is the WBS Element in order to track the transparency, visibility and activity of the efforts being supported. RDECOM uses WBS Elements for many various reasons, some of which are:

- Collect any reimbursable costs for services provided
- Provide funding to other entities via the Direct Charge process
- Manage Official Representation Funding (ORF)
- Track costs of Functional Cost Accounts (FCAs) such as F1201 – OPERATION ENDURING FREEDOM (OEF), Counter Narcotic Y9204 – CENTCOM CN OPERATIONAL SUPPORT (OPS)
- Capture non-labor costs of organizations
- Track the costs of equipment and kits
- Manage the costs of specific research and development projects

### **Statistical Key Figures (Non-Financial Measures)**

Statistical Key Figures (SKFs) represent the non-financial measures a command might want to track to support performance reporting and/or to be utilized to support Allocations. Currently, RDECOM does not utilize SKFs to track non-financial measures.

## **Cost Elements**

### **Primary Cost Elements**

Primary Cost Elements track initial expenditures within the system and are defined ARMY-wide. Therefore, nothing specific for the RDECOM command has been developed related to Primary Cost Elements.



## **Secondary Cost Elements**

Secondary Cost Elements are utilized to track cost flows from initial expenditure to final cost objects. There have not been any Secondary Cost Elements generated specifically to address RDECOM requirements.

## **Business Processes**

Currently the RDECOM Cost Model does not use Business Processes to track cross-functional business activities or Activity-based Costing.

## **Real Property**

RDECOM does not have Real Property and therefore this cost object is not present within the RDECOM Cost Model.

## **Attributes (Custom Fields)**

Currently, RDECOM uses Custom Fields added to the base SAP master data elements of Cost Centers, Internal Orders and WBS Elements:

- Functional Cost Account – tracking FCA codes issued for tracking of Hurricanes and deployment related events.
- Command Defined Field – Starting in FY15, AMC has issued policy on utilization of the Command Defined Field in order to provide transparency into the reimbursable customer source of funding. See Table 2: Sample of AMC-wide Command Defined Field Values for sample values (not all-inclusive list). The AMC General Funds Customer Codes are 5 alphanumeric digits and are representative of organizations only (e.g. the fund center requesting such as A5XA0 or external entities). Within GFEBS, the AMC Customer Code must be populated on all WBS Elements that will execute reimbursable funds. The AMC Customer Code must be input as the FIRST five characters in the “Command Defined Field” of the execution level WBS Elements. Additionally, the AMC MSC/LCMC must input the LAST four digits of the supplying Funds Center immediately after the AMC Customer Code.





TABLE 2: SAMPLE OF AMC-WIDE COMMAND DEFINED FIELD VALUES

Customer Defined Code	Customer	Description
A5XB0	PEO Ammunition	PEO Ammunition - includes all Fund Centers A5XB*
A5XC0	PEO Aviation	PEO Aviation - includes all Fund Centers A5XC*
D4A00	Air Force	Air Force
D4C00	Defense Advanced Research Projects Agency (DARPA)	Defense Advanced Research Projects Agency (DARPA)
F5A00	Department of Agriculture (USDA)	Department of Agriculture (USDA)
N6A00	Private Industry	Private Industry
N6B00	Academia/Universities	Academia/Universities

## Planning

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RDECOM currently does not utilize any Cost Planning capabilities.

## Capture Actuals

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### Payroll

Civilian Payroll will be disbursed out of the Defense Civilian Payroll System (DCPS) with financial transactions being recorded on a bi-weekly basis. The Budget LOA is defined within the Human Resources (HR) master data record for each employee. One item to note is the Funds Center for the paying Budget LOA is actually determined by the Funds Management business logic (i.e. FMDERIVE – a custom table inside the ERP platforms that associate Cost Management master data with Funds Management master data).

RDECOM is responsible to maintain both the Faces-to-Spaces document identifying the association of Activity Types to Cost Centers and the calculations of the Rates. Additionally, RDECOM maintains the HR LOA within ERPs and requests updates to the FMDERIVE related business rules necessary for payroll to post against the correct funding. For more information on Faces-to-Spaces see <http://www.opm.gov/oca/10tables/indexGS.asp>.

Military Payroll currently comprises a portion of RDECOM's overall cost of operations. Currently, the MILPAY appropriation is not being recorded in GFEBs but is scheduled for FY15.



## **Labor**

RDECOM currently tracks Civilian labor hours daily to products/services command wide. Therefore, Secondary Cost Elements, such as 9300.0100 LABOR CHARGE – REG are seen assigning the cost of labor from RDECOM-related Cost Centers to Orders and/or WBS Elements.

## **Non-Pay/Labor**

For Non-Pay/Labor costs, the individual initiating the budget execution action needs to indicate the organization and/or event (e.g. Internal Order or WBS Element) receiving the benefit of the non-payroll expense.

## **Depreciation**

RDECOM receives depreciation postings for capital equipment tracked within the Property Book Unit Supply Enhanced (PBUSE) system. PBUSE is being subsumed by GCSS-Army as a part of the GCSS-Army Wave 2 rollout FY15 – 17.

In the interim, PBUSE interfaces with GFEBS to provide all transactional data to financially reflect the capital equipment acquisitions, destruction, lost and transferred. GFEBS utilizes the asset transactions in conjunction with depreciation schedules or equipment usage data received from Operating and Support Management Information System (OSMIS) to determine the Usage-Based Depreciation to post as the non-budget relevant cost of the equipment associated to each Organization or Unit (Cost Center).

## **Perform Allocations/Cost Assignments**

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Various kinds of Allocations/Cost Assignments can be supported within the Cost Model. RDECOM currently utilizes Costing Sheets to associate indirect costs to their end cost objects.

### **Costing Sheets**

The costing sheets are centrally managed by Headquarters; they create and maintain various Costing Sheets for RDECOM. An organizational POC at RDECOM reviews the overhead sheets data and identifies any changes that need to be made by the Help Desk, i.e. new Cost Center/Activity Type Hours to apply OH against, new OH rates, Fund on the OH posting, etc. Costing Sheets can be updated at any point in time throughout the year, but every organization will review and make updates as a part of Year-End Activities.

DASA-CE has oversight and will approve changes and creations to Costing Sheets.



A Costing Sheet is an allocation tool that is used for the application of indirect costs (e.g. management oversight, network support, etc.) to the receiver object (WBS Elements for RDECOM) that reflects the work effort.

Costing Sheets have two methods for calculating the amount of indirect costs to be associated:

- 1) Percent of the dollars posted – An example of this method is to support the Unfunded Civilian Service Retirement (UCSR) process. A percentage of just the labor dollars charged to a WBS Element is utilized to calculate the amount to collect for unfunded civilian retirement, post-retirement health benefits and post-retirement life insurance costs from specific customer types (i.e. DoD Components, Federal Agencies, and private parties).
- 2) Dollar per Hour (\$/Hr) – An example of this method is for each labor hour confirmed to the WBS Element (e.g. 10 hrs of direct labor hours at \$78.00/Hr resulting in \$780.00 of direct labor costs), an additional \$33.52/Hr is charged to cover all indirect costs (resulting in \$335.20 of indirect costs also being associated to the WBS Element).

## **CM Data Load**

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Currently, RDECOM does not have any external systems that need to be imported as cost drivers for allocations.



## Reporting

No specific reports are associated for the RDECOM command only. Below Table 3: Sample List of Common Cost Management Reports provides a sample list of common Cost Management related reports used for all commands:

**TABLE 3: SAMPLE LIST OF COMMON COST MANAGEMENT REPORTS**

GFEBs ECC Reports			
Area	Report Name	T-Code/ROLE	Benefit
Master Data – CCs	Display Cost Centers (CCs)	KS03 and KS13/ EPS_EC_CM_ECC_DISPLY_RPTR_0000	Display individual or all Cost Center(s) Master Data within a Group (e.g. use the last 4 digits of the Fund Center to get all Cost Centers associated with the Cost Center Hierarchy of that Fund Center).
Master Data – IOs	Display Internal Orders (IOs)	KO03 and KOK3 / EPS_EC_CM_ECC_DISPLY_RPTR_0000	Display individual or all Internal Order Master Data.
Master Data – WBSs	Project Info System: WBS Elements	CN43n	Displays all Projects and WBS Element Master Data.
Plan – AcType Rates	Activity Type (AcType) Price Report	KSBT/ EPS_EC_CM_ECC_DISPLY_RPTR_0000	Displays AcType Rates Associated to a Cost Center.
Actuals – CCs	Cost Centers: Actual/Plan/Variance	S-ALR_87013611/ EPS_EC_CM_ECC_DISPLY_RPTR_0000	Actual \$s for Cost Centers and AcType, SKF Quantities.
Actuals – IOs	Orders: Actual/Plan/Variance	S-ALR_87012993/ EPS_EC_CM_ECC_DISPLY_RPTR_0000	Actual \$s for Internal Orders and SKF Quantities.
Actuals – WBS	Display Project Actual Costs Line Items	CJ13	Cost Line Item Postings to WBS Elements.
Actuals – Costs	Display Actual Cost Document	KSB5/ EPS_EC_CM_ECC_DISPLY_RPTR_0000	CO Document Actual Costs for Transactions that have posted.
GFEBs BI Reports			
Area	Report Name	T-Code/ROLE	Benefit
Actuals – Costs	Cost by Reports	Cost by Cum Report / Cost Management Reporter.	BI Report displaying costs with various Attributes.



## Considerations for Cost Model Updates

Table 4: Improvements to Command Cost Model lists items for consideration for updating/improving the RDECOM Cost Model:

**\*\*\*Notional example only – to be built with Command based on priorities\*\*\***

**TABLE 4: IMPROVEMENTS TO COMMAND COST MODEL**

Code	Category	Description	Benefit	Timeline
1	Master Data	Review Cost Centers for Federation and GFMDI.	Aligns structures to future automated approach for maintenance of Cost Centers.	QX FY15
2	Master Data	Review Employee HR Mini Cost Center Assignments. Labor charges to other Command Cost Centers.	Ensures correct tracking of Labor costs within and across commands.	QX FY15
3	Master Data	Review Internal Order ZUFL for Unfunded Leave automatic payroll process.	Ensures Unfunded Leave is tracked appropriately and reported accurately.	QX FY15
4	Master Data	Review Internal Order Types to utilize ZRDE for RDECOM	Ease of master data management and reporting to locate only Internal orders related to organization.	QX FY15
5	Master Data	Review Funded Program Type on WBS Elements	Direct Charge processes are supported by Funded Program Type DRCH only not INDC and will impact reporting.	QX FY15
6	Master Data	Evaluate RESP CC on WBS Elements to support Settlements.	All WBS Elements have to be net zero eventually. Costs are assigned back to a Cost Center for the organization responsible or to follow-on products/services. Allows for deactivation of master data.	QX FY15
7	Master Data	Review Real Property associated to Cost Centers.	Ensure Real Property Depreciation reporting is correct for Army.	QX FY15
8	Actuals	Eliminate Payroll postings to WBS Elements.	Ensures Manpower reporting is correct. Payroll Accounts should not be used to move Payroll costs to a WBS Element; only a Secondary Cost Element such as 9300.01VR LABOR VARIANCE should be utilized.	QX FY15
9	Allocations & Assignments – GFBS	Generate Overhead Allocations.	Associate centralized and Indirect costs to the benefiting organization or products/services.	QX FY15
10	Non-Financial Measures	Determine what Metrics RDECOM utilizes for performance and identify if they can be associated within the Cost Model.	Alignment of Output/Measures with costs for efficiency/effectiveness reporting.	QX FY15