

PRODUCTION PLANNING AND CONTROL/ DISTRIBUTION CENTER RESOURCE MANAGEMENT

1. Introduction. The purpose of this unit of instruction is for you to gain a knowledge of the functions of the production planning and control element within the Directorate of Distribution and its interaction with other organizational elements. This lesson includes the responsibilities of the Production Planning and Control (PPC)/Distribution Management Division and how annual workload forecasting is accomplished by and for the distribution center; how the distribution center prepares its budget based on the workload forecast; the Defense Working Capital Fund (DWCF) to include distribution center unit cost, the labor-hour standards, and productive labor-years; and performance indicators to show distribution center managers how well they are accomplishing their mission within the unit cost goal.

2. Objectives. After completing this lesson, you will be able to:

- a. Identify the responsibilities of the production planning and control organizational element.
- b. Describe the roles of the inventory control point, the Defense Logistics Agency, and the distribution center in workload forecasting and budgeting.
- c. Explain the purpose of workload forecasts.
- d. Explain the concepts of DWCF and distribution center unit cost.
- e. Identify the workload forecast generators and the functional areas for which they are responsible.
- f. Describe the units or terms in which workload forecasts are measured or stated.

- g. Examine standards, workloads, and fixed prices/ rates to determine workforce and funding requirements.

- h. Analyze resource management performance indicators.

3. Production Planning and Control/ Distribution Management Division. This lesson provides some insight into the role of the inventory control point (ICP); Defense Logistics Agency (DLA); and the distribution center in workload forecasting and budget planning and execution. Since the PPC Division has an important role as an interface between the Directorate of Distribution and other organizations. This lesson will focus on responsibilities of this division.

- a. General. The PPC/Distribution Management Division plans, develops, coordinates, and analyzes the Directorate of Distribution workload and funding requirements. It is responsible for system policies and procedures as they apply to the directorate. The division develops long range programs in the area of facilities and equipment modernization, coordinates with customers, and schedules and controls special projects.

- b. The Division serves as the focal point for administrative actions within the Directorate. It serves as the point of contact for off-distribution center inspections; conducts management studies; prepares Directorate briefings, correspondence, and reports; coordinates Directorate training programs; and provides guidance and assistance to other elements of the Directorate concerning administrative actions.

- c. The Division conducts or participates in studies to determine new or revised functional systems, automated or manual, for the accomplishment of the Directorate mission. This includes the responsibility to review, interpret, and implement distribution

regulations, directives, and procedures affecting the Directorate. Where systems problems occur that have an impact on the Directorate, PPC provides the functional expertise to solve those problems and writes appropriate implementing instructions.

d. The Division provides the interface with customers of the distribution center. It provides technical assistance, liaison, and visits to the customers. It provides teams that go to the customer activities and perform such functions as purifying stock, storage record updates, conducting location surveys, taking inventories, identifying excess materiel, and rewarehousing. This division also conducts customer satisfaction visits.

e. The Division balances workload and resources when they cannot be accomplished internally within the other divisions of the Directorate. PPC monitors the workload in such operations as receiving, issue, set assembly, storage planning, rewarehousing, and preservation and packing. It prepares space utilization reports, maintains the storage planographs, and prepares scope of work statements for commercial activity reviews.

f. The Division oversees all types of equipment in use within the Directorate. It is responsible for all phases of equipment utilization from long range planning through procurement, and current use. Additionally, PPC prepares facility layouts and work flow studies.

g. The Division is responsible for forecasting and funding for the Directorate of Distribution. PPC receives and accepts all work authorizations and funding for distribution operations; develops and coordinates mission programs and budgets; develops distribution center generated workload forecasts; coordinates with the ICPs and DLA on forecast and program changes; and evaluates overall performance in terms of productivity and cost.

4. Purpose of Workload Forecasts.

a. Workload forecasts are the basis for determining resource requirements and for developing work authorizations for distribution centers. The forecasts represent the amount of work to be accomplished at the distribution center. The forecasts are developed in lines, tons, and quantity of work to be accomplished and are directly related to personnel ceilings, workforce size, distribution center income, unit cost, and productivity.

b. For example, if a forecast is for 100,000 lines of work to be accomplished, and the distribution center has an approved standard which indicates that to accomplish one line requires 1.6 labor-hours, multiplying these two factors indicates that 160,000 labor-hours will be required to perform that work. This total labor-hour requirement when divided by the number of productive labor-hours per employee in a year will give the supported workforce for that forecast. If our distribution center average is 1750 labor-hours per year, our example of 160,000 is divided by 1750 for a resulting workforce of 91.4 people. See figures 1 and 3.

c. **DWCF.** The distribution center is a Defense Working Capital Fund (DWCF) activity. The purpose of DWCF is to relate all costs of the distribution center to the product or service that it provides (e.g., shipment). The DWCF is a revolving fund based on business cost accounting methods. In other words, the distribution center will determine the price for its product or service by identifying all possible costs and passing those reimbursable costs on to the distribution center customer. (See Figure 2.) The philosophy of the DWCF is twofold. First, distribution center managers have a better view of costs and second, managers have more flexibility to manage costs. In essence, the primary emphasis of the DWCF is **cost per output**. Three principles which illustrate this under DWCF are:

- (1) Reimbursable Basis for Support.
- (2) Cost is a Factor.

(3) Pricing Based Upon Business Cost Accounting Methods.

d. **Distribution Center Unit Cost.** The DWCF operates using the concept of unit cost which takes into consideration all possible costs. These total costs include direct costs (e.g., labor); indirect costs (e.g., administrative/support); and general administrative costs (e.g., staff functions). Thus, total cost includes labor and nonlabor costs and is computed as follows:

Direct + Indirect + Gen. Admin. = Total Operating Cost

Based on this cost accounting information and taking into consideration the overall workload, the distribution center unit cost is calculated as follows:

\$\$ SPENT + WORK UNITS = ACTUAL UNIT COST

5. The Forecast Process.

a. The distribution center's forecasted workload is generated by the ICPs that manage the stocks stored at the distribution center and by the distribution center itself to support its own internal operations. Forecasting, as the name implies, is not an exact science, but an educated estimate of what will take place in the future. The future cannot be measured and must therefore be estimated based on the past while attempting to weigh known changes that will occur and their impact on the mission.

b. **Inventory Control Point.** The ICP's means of forecasting is primarily developed using a weighted average of past experiences. The most current data is assigned the highest value while older data is given a lesser value. All data gathered for the purpose of developing a forecast is checked to ensure that no previous one time occurrences are included which would skew the forecast. Or, on the other hand, any known future changes, such as a transfer of items from Army management to the Defense Logistics Agency, must be taken into account.

Such errors could significantly distort the forecast, which in turn drives the labor and dollar resources that must be budgeted. The inventory control points submit forecasts for the following distribution mission functions:

- (1) Receiving.
- (2) Issue.
- (3) Set Assembly.

c. **Distribution Center.** The Production Planning and Control/ Distribution Management Division is the focal point within the Directorate of Distribution for development of the distribution center generated forecast and for receipt of the ICP generated forecast. The forecast which is developed by the distribution center is based on previous years' workloads, past experience, and projected future activities. The PPC element coordinates this forecast with other directorates to ensure that all workload is included. Coordination is done with the Office of Planning and Resource Management to ensure that Directorate of Distribution data is incorporated into the entire distribution center budget process. The following list shows many of the functions for which a distribution center generated workload is forecasted by the distribution center:

- (1) Receiving.
- (2) Issue.
- (3) Care of Supplies in Storage (COSIS).
- (4) Physical Inventory.
- (5) Location Surveys.
- (6) Reworking.
- (7) Quality Control Checks.
- (8) Packing and Preservation for Storage.
- (9) Scheduled and Unscheduled Inspections.

- (10) Research and Reconciliation.
- (11) Logistics Management Data.
- (12) Materiel Release Denial Research.

d. The forecasts are stated in lines and tons for receipts and issues and in sets and pieces for set assemblies. The forecasts for the other functional areas are stated in workload quantity and labor-hour standards. Note that both the ICP and the distribution center generate receipt and issue forecasts. Those from the ICP are for the distribution mission, while those from the distribution center are for support of its installation operations.

e. HQ, Defense Logistics Agency (DLA). DLA is the coordinator of forecast data from both the ICPs and the regions/distribution centers. It also serves as the liaison between the ICPs and the distribution centers. DLA receives, accumulates, and consolidates forecast data, reviews forecasts against region/distribution center capabilities, and distributes forecasts.

f. The forecasts are submitted to DLA in February each year. DLA challenges or accepts the ICP generated forecast and then forwards it to the region/distribution center. The distribution center then challenges or accepts the forecast and returns it to DLA. Both ICP and distribution center generated forecasts are submitted to DLA for three budget periods as follows:

(1) Command Operating Budget (COB). The COB refers to that workload to be accomplished by the distribution center in the upcoming fiscal year.

(2) Command Budget Estimate (CBE). The CBE refers to the workload that can be expected in the year following the next fiscal year.

(3) Five-Year Defense Plan (FYDP). This is the workload projected for each of the three years after the CBE.

g. DLA consolidates the receipt, issue, and set assembly forecasts from the ICP's and the receipt and issue forecasts from distribution centers into the Workload Forecast Summary. This document is prepared in three parts corresponding to the above described three fiscal periods. The Summary shows the forecasted workload for each distribution center by origin and destination, fiscal quarter, and by lines and tons or by sets and pieces (see Figure 3).

h. Receiving, Issue, and Set Assembly Workload. When DLA receives the receiving, issue, and set assembly forecasts, it begins preparation of the DLA and distribution center budgets. A unit cost for each distribution center is established based on the cost of receiving or shipping a line to include indirect costs. Once each distribution center's forecasted workload is multiplied by its unit cost, DLA has a budget mark and establishes initial funding.

i. Distribution Center Internal Workload. The distribution center submits a separate forecast to DLA for all work it generates other than receipts and issues. The distribution center submits this forecast in two forms: constrained and unconstrained. Constrained is the absolute minimum amount of work to be accomplished, while unconstrained indicates all the work that could be done. Normally, the constrained forecast is designed to provide work to support the onboard personnel. These forecasts are stated in workload quantities and labor-hour standards. The cost of the work to be accomplished is calculated on the unit cost. The distribution center generated forecast, converted into dollars, is submitted to DLA for funding.

j. Final Update. After the original forecast is submitted, all parties get another opportunity to update the information in their forecast just prior to the start of the fiscal year. This final update takes place in August and is designed to give managers at all levels a chance to incorporate any changes which may have taken place during the period since the original forecast. The update gives DLA a final look at all workload by distribution center prior to the

beginning of the new fiscal year. This also gives the distribution center the opportunity to ensure that the forecasts will support its onboard strength.

6. The Budget Process. The workload forecasting process discussed thus far has been designed to achieve several ends: first, how workload forecasting is used to plan the supported work force within the Directorate of Distribution; and second, how forecasting provides the data necessary to support the Directorate of Distribution's budget. The final step in planning is the preparation of the Directorate of Distribution operating budget. This discussion of the budget process will include four areas: development, execution, monitoring, and end-of-the-year wrap-up.

a. **Budget Development.** Utilizing unit cost, the Directorate of Distribution will use the forecasts for work to be accomplished and calculate the Internal Operating Budget (IOB). The budget prepared by the Directorate of Distribution must be prepared to arrive at the Office of Planning and Resource Management (OPRM) by mid April. The OPRM will receive, review, and consolidate all the IOBs and prepare the distribution center budget. This budget, once assembled, will be forwarded to DLA. The budget must arrive at DLA by 1 May.

b. **Budget Execution.** From the original submission date until the budget year begins, the DLA Comptroller prepares any final changes which have occurred. Part of the preparation for this final change is the last update of the forecasts. The final budget lock-in incorporates all the changes as a result of the forecast and mission changes. The final lock-in on the budget occurs in October. The final lock-in is designed to adjust all unit costs, proposed workload, and operating costs for the year. On many occasions, the Congress has failed to pass the budget prior to the beginning of the year, in which case they pass a "Continuing Resolution." This is designed to allow the DoD to continue to operate at the previous year's rates until the budget is finally passed. However, even without appropriation approval or continuing

resolutions, the distribution centers continue to operate. The employees are paid from the DWCF and the DWCF is reimbursed by annually appropriated funds from DLA. This means that the DWCF could pay out funds, but reimbursement would not be taking place. Once funds are approved, a lump sum reimbursement would take place to bring the DWCF back into balance.

c. **Budget Monitoring and Control.** The distribution centers operate with two main financial management type budgets once the year begins: a revenue budget and an internal expense budget. These two budgets are designed to keep the distribution centers' cash flow in balance. The revenue budget is an income device, showing the money earned by the distribution center in accomplishing work at the approved labor-hour standards and the IOB expense budget shows the actual costs incurred as a result of mission work. Each of these budgets track work accomplished and costs by DLA Cost Center. Each DLA Cost Center status is tracked on both of the budgets to ensure that income and expenses remain in balance. Updates occur every week. These updates are conducted against each of the two budgets by DLA Cost Center and/or by Procurement Request Order Number (PRON).

d. **End-of-the-year Closings.** The last months of the fiscal year are extremely busy times for the distribution center personnel involved in resource management. The ICPs are normally divesting themselves of unexpended dollars. These moneys may come to the distribution center to be obligated prior to the year ending. If the work requirement is accepted, the workload can be charged against this year's budget, but performed during the first months of the next fiscal year. This procedure, called carry-outs, can also be planned early or during the year so that the distribution center will have work-in-process between the fiscal years. Carry-outs are more prevalent in maintenance operations than in distribution operations. In addition to adding new work to the distribution center, the resource management personnel are trying to close out projects

completed by the distribution center. Closing out refers to checking each PRON or DLA Cost Center in each of the budgets to ensure that the revenue and expenses have been posted and are correct. This entails checking the status of each project to ensure that all costs incurred by the distribution center for that project have been charged against the correct DLA Cost Center or PRON and obtaining the status of ongoing projects to ensure that they will be completed ontime and on budget. The next budget process focuses on how daily-time and labor information interface with the budget.

7. Daily Time and Labor Reporting. The key to the performance of the distribution center tends to hinge on the lowest level of reporting. The daily time and labor data reported by the supervisors of work performed and costs incurred directly impacts the expense budget. Accurate reporting of work performed by DLA Cost Center and PRON results in an accurate expense budget. Take for example two separate projects. One is a special requirement funded by HQ DLA and the other, a separate PRON or work order from an ICP. Both are to be performed by one crew in the warehouse. If both projects are not reported correctly, one project would experience cost overruns while the other might be accomplished at no cost. Further impacts would be excessive charges against the mission account, altering the statistics so that the labor-hours per line would increase and drive-up the unit cost. **The importance of accurate reporting cannot be overemphasized.** Every person responsible for providing input into daily time and labor should be familiar with DLA Cost Centers and PRON's. Personnel must ensure that when work is performed, it is reported against the correct Cost Center. Accurate reporting ensures that the distribution center's statistical base is valid. This data base is used each time work is

requested. Incorrect data will give an incorrect base on which cost estimates will be provided to prospective customers.

8. Performance Reporting. The distribution center work centers are tasked to accurately record labor-hours and production for submission to the PPC/Distribution Management element. The frequency of these reports is determined by the PPC element and can be either daily or weekly depending on the time of the year and the priority of the project. This cost and production data for each DLA Cost Center or PRON is automatically passed thru PPC to HQ DLA. The data is used at DLA to effect centralized billing and reimbursement for the distribution center accomplishing the work.

9. Reimbursements. DLA provides a central billing and reimbursing service for all work orders issued by DLA to DWCF activities that are chargeable to DoD appropriations. These reimbursements are processed semimonthly. These billings are based on actual costs incurred for cost reimbursable orders and on the unit cost. HQ DLA accomplishes all reimbursements and billings for all DoD customers of the distribution center. The distribution center is responsible for these actions for customers outside of DoD. An example of this would be reimbursements and billing with work accomplished for the General Services Administration.

10. Summary. The lesson presented the workload scheduling process, the budgeting process, the interfaces that take place both internal and external to the distribution center associated with financial management and workload schedules, and how reimbursements are accomplished.

TERMS

DLA Cost Center. This is a management code for financial accounting purposes. One DLA Cost Center is assigned to each function performed in the distribution center.

Procurement Work Directive (PWD). A directive from a customer authorizing funds be expended to do a specific task. This includes those funds that were budgeted for during the year as well as any unforeseen tasks that may come up during the year.

Procurement Request Order Number (PRON). A 14 digit number assigned by the customer on each PWD for the purpose of cross referencing authorized labor-hours and funds to a specific project or task.

Program Control Number (PCN). A distribution center assigned number for each PRON. The PCN is used at the worker level to identify by individual cost center, the hours and dollars spent against a specific PRON. One PRON may require input by several cost centers; i.e., quality assurance, preservation packing, and an element of the maintenance directorate. The PCN is the number reported against a specific task and is rolled up by the computer against a specific PRON.

Unit Cost. A cost accounting method that takes all operating costs into consideration to include direct, indirect, and general administrative.

Figure 1

DWCF UNIT COST OPERATION

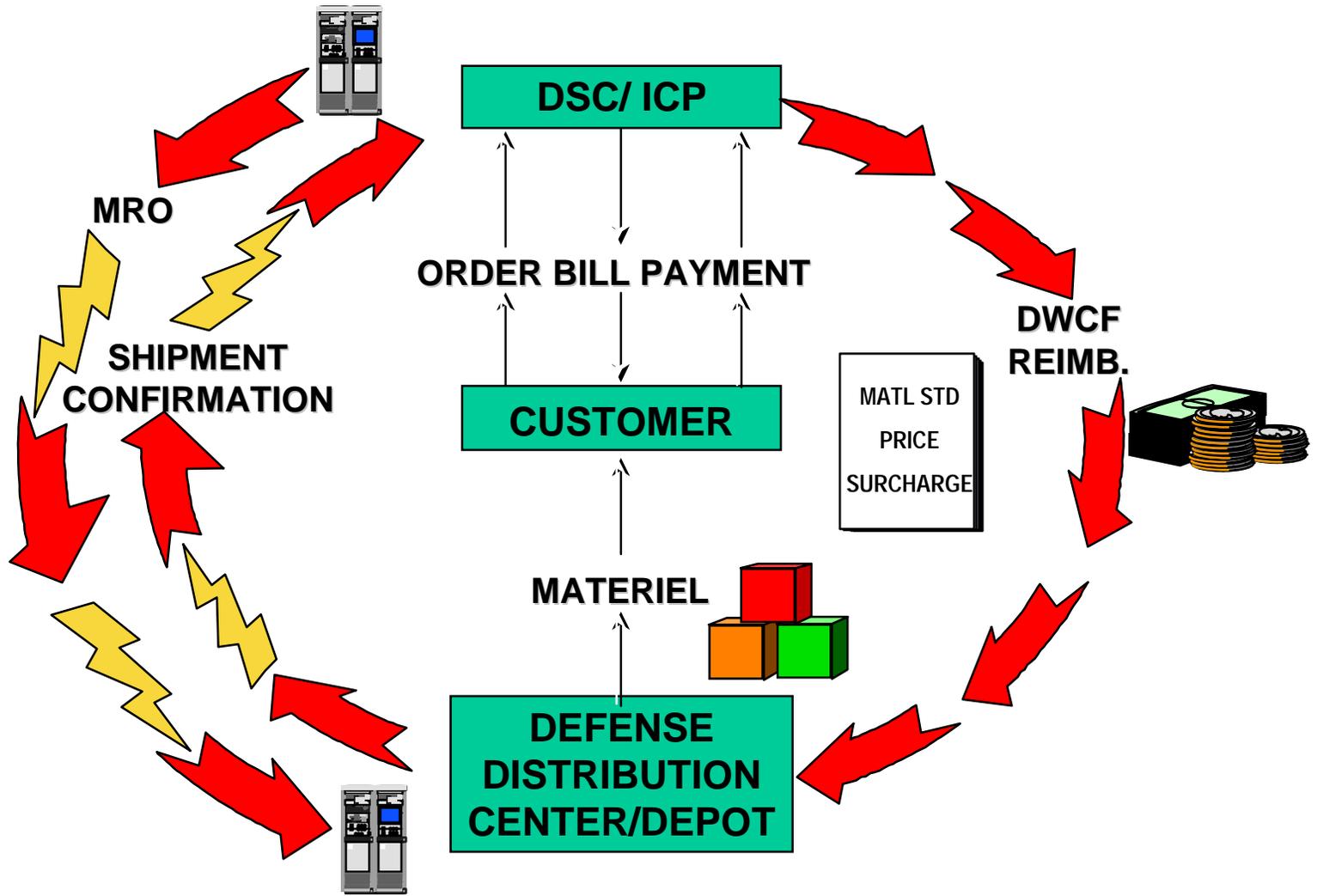


Figure 2

WORKLOAD FORECAST SUMMARY
DISTRIBUTION CENTER WORKLOAD FORECAST
ALEXANDRIA

DLA PCN K50BBY9684T PAGE NO
REPORTS CONTROL SYMBOL DRCMM-329
DATE COB UD1CY

RECEIPTS OTHER DLA-O/S	1 ST QUARTER		2 ^D QUARTER		3 ^D QUARTER		4 TH QUARTER		TOTAL	TOTAL
	LINES	TONS	LINES	TONS	LINES	TONS	LINES	TONS	LINES	TONS
DSCC	594	84	579	82	571	80	550	78	2294	324
DESC	1236	361	1366	399	1410	412	1388	405	5400	1577
DSCR	650	15	650	15	650	15	650	15	2600	60
DISC	14974	255	6479	119	4574	88	764	28	26791	490
DSCP	728	124	782	111	1024	115	780	179	3314	529
TOTAL DLA-O/S	18182	839	9856	726	8229	710	4132	705	40399	2980
ARMY	12955	2307	12895	2307	13095	2307	13105	2305	52050	9226
TOTAL OTHER CUST-O/S	12955	2307	12895	2307	13095	2307	13105	2305	52050	9226
TOTAL O/S	31137	3146	22751	3033	21324	3017	17237	3010	92449	12206
GRAND TOTAL	31137	3146	22751	3033	21324	3017	17237	3010	92449	12206

Figure 1

OUTLINE FOR NOTETAKING

PRODUCTION PLANNING AND CONTROL/RESOURCE MANAGEMENT

I. PPC Responsibilities.

II. Purpose of Forecast.

A. Workforce.

B. Funding.

C. DWCF.

D. Unit Cost.

III. Forecasting Process.

A. ICP Generated Workload.

B. Distribution Center Generated Workload.

C. PPC.

D. DLA.

E. COB/CBE/FYDP.

IV. Budget Process.

REVIEW AND STUDY

1. List five primary functional responsibilities of the PPC/Distribution Management Division.
2. What is the primary purpose of the workload forecast?
3. Explain the concept of unit cost.
4. In reimbursing the distribution center for work performed, is unit cost applied to the physical inventory function? Distribution center generated issues? Rwarehousing? ICP generated receipts?
5. What factors influence the values of unit costs?
6. Identify the three functional areas for which workloads are forecasted by the ICPs. What are the units of workload measurement?
7. List five functional areas included in the distribution center generated forecast. In what terms are these workloads stated?
8. Describe the role of DLA in the forecasting process.
9. What two data elements must you know to calculate the number of labor-hours required to accomplish the work in a given function? What additional data is needed to calculate the size of the workforce and the funding needed?
10. List the three fiscal periods for which forecasts are submitted to DLA.

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