FRAME FORCE MANAGEMENT

DISTRIBUTING FRAMES

SUPPLEMENTAL AND COMMON INFORMATION—CENTRAL OFFICE

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1. GENERAL

1.01 This section describes the Frame Force Management Plan which provides the most efficient use of manpower at the local central office level. This plan directly measures the work effort of a frame operation while taking into account its physical layout complexity and mix of various types of work. The control measures prescribed in the Plan are in terms of ***natural*** units of frame work (ie, placements, changes, and removal of wiring arrangements and hardware). The intent is not to replace existing work unit cost results that are official district, area, and company measurements, but to supplement them at the lowest operating level and improve these results through the proper match of force to work load and the measurement of work effort efficiency.

1.02 This section is being reissued to cover major changes in Frame Force Management. No change arrows appear due to extensive changes in the text.

1.03 The title for each figure includes a number(s) in parentheses which identifies the paragraph(s) in which the figure is referenced.

1.04 Recommendations for changes, additions, or deletions to this section should be forwarded as specified in Section 000-010-015.

1.05 The intent of the Plan is to provide all managers who have frame responsibility with knowledge of future demand work today. With this knowledge, the manager will be able to make the following accomplishments:

(1) Meet subscriber demands

(2) Program company-generated work

(3) Ensure that all employees are productively assigned.

1.06 The procedures outlined in this section address frame management and deal primarily with determination of the following items:

(1) Demand order load hours

(2) Nondemand order load hours

(3) Total nonorder hours

(4) Frame force hours available for order work

(5) Proper force sizing for the order load hours

(6) Obstructions to smooth work order flow.

1.07 To avoid possible misunderstanding, the following definitions of terms are provided.

TERM	DEFINITION
Distributing Frame	MDF, IDF, LDF, TDF, No. Group, Translator, Block Relay, No. Network (ANI) and any

	other frame performing equivalent functions related to work covered by this Plan
Jumper	Cross-connect wire
Preliminary or Advanced only	Jumpers run but not terminated on both ends
Supervisor	First level management

A. Production Improvement

1.08 Improvement of frame production probably will ***not*** be a speedup of the individual (assuming that the individual is fully trained and is working at a reasonable steady pace). Improvement of frame production ***is*** a speedup of the flow of work through the frame operation. Equally important to work flow is the proper sizing of the frame force to match the work load. The procedures in this section are designed to assist management in identifying the extent to which work flow efficiencies and force sizing controls are being applied at the local frame level.

1.09 Productivity improvements can only come about as the result of a deliberate attempt by management to increase the rate at which work flows through the frame operation and match the force to the load. Improvement will only be accomplished by better methods, revised work assignments, and closer supervision geared to eliminate the hours spent on inefficient work operations and idle standby. Improved productivity and improved service are closely related. As productivity improves, more time will be available for service improvement items. However, neither can be achieved without the close personal attention of the supervisor. The major concern of the supervisor should be that everyone in the frame force has a full day of work and that everything possible is being done to eliminate any condition which prevents craft from efficiently doing the frame job. These instructions are designed to help the supervisor accomplish these objectives.

B. Job Assignments

1.10 Individual productivity increases when each person knows:

- Exactly what is to be done
- The manner in which it is to be performed
- The expected time for its completion.

1.11 The supervisor should have the responsibilities of each workload assignment outlined. The workload responsibilities should be detailed so as to leave no area of doubt. These responsibilities encompass all the required workload operations on the frame, including housekeeping, safety, and record work. These job responsibilities should be assigned commensurate with experience levels in the work force. The frame supervisor, for training purposes, should assign all types of work to ***all*** frameworkers on a programmed basis and assist in its completion in order to develop a fully trained work force.

1.12 The Work Assignment List (Form E-5848) should be posted and used for describing job responsibilities. Work should be assigned that is functionally loaded. For example, an individual is assigned to the vertical side of the main frame. That person's primary responsibility might be terminating jumpers for preliminary frame work (orders worked in advance of due date). Secondary responsibilities might be to work with the tester when needed, assist on trunk orders, or routine work assignments in order to assure full productivity for the duration of the shift. Another example would be the loading of an individual with a load for a full day of new connects, disconnects, or a combination of both.

1.13 It is necessary for the supervisor to tell each person of their workload assignment for a particular week, day, or whatever period of time that is used in the office. Form E-5848 is used for this purpose. This form should be posted in a prominent place.

1.14 It is important for supervisors to consider the length of time that individuals are assigned to specific work assignments. A sufficient period of time should be allowed for an individual worker to develop fully in a particular assignment. Supervisors must find the most suitable arrangment for each of their subordinate's training needs.

1.15 The supervisor must be alert to the effect of absences which result in a workload assignment being unoccupied. Temporary adjustments in workload assignments must be made when absences are not replaced. It is possible to minimize

this problem in a large force by developing work load assignments that can be deferred in order that the work load of an absent employee is covered. This procedure does not imply that supervisors should not be concerned with force absences, but is intended only to make overall operation smooth on days when absences do occur.

1.16 During the peak loads, the frame force should be on work assignments and not in meetings or other miscellaneous activities. Overlapping work assignments will eliminate delays to the installer, local test desk, and Plant Service Center forces by ensuring adequate coverage.

C. Work Scheduling

1.17 A steady pace of frame activity must be maintained regardless of the frame load. This involves shifting part of the frame force to more productive endeavors when the service order load drops and temporarily borrowing help from other groups or activities when service order demand is at its highest.

1.18 Frame work should be scheduled according to priority. During very heavy load periods, certain work operations may be temporarily suspended in order to fill more pressing commitments. Work for which other forces are waiting should be completed first. Programmable work, such as trunk orders not due yet and preliminary frame work, can be temporarily classed as secondary in importance to an order which, if not completed promptly, would delay an installer.

D. Discrepancies

1.19 Service order record errors are costly and can be reduced by scheduling routine work assignments to purify assignment records. Time spent by the frameworker and supervisor on a frame check (main frame, assignment and traffic record comparison) will pay dividends to the forces involved in service order work. ***Crash*** programs should be avoided. A continual approach is encouraged through the use of scheduled routines and follow-up quality inspections of the routines and records to ensure accuracy of assignment and other records.

2. PLAN IMPLEMENTATION

A. General

2.01 This plan is implemented in all frame operations having one or more framepersons normally assigned full time. In one frameperson operation, the use of Form E-6619, Daily Forecast, may be omitted as long as forms E-6622 and E-6624 are posted daily. The monitoring of the daily percentage of nonorder time and the actual percentage of efficiency will enable the supervisor to make judgements as to whether the need for continued coverage or the need for additional manpower exists.

B. Expected Time for Frame Tasks

2.02 An average time expectancy for all frame cross-connection tasks is provided by Table A. These are typical time intervals to complete all work operations on a circuit on an average Bell System frame (all cross-connect, testing, and records work are included in this table).

2.03 The average service order consists of two basic work operations: (1) the jumper on the main distributing frame (MDF) and (2) the cross-connections for the telephone number, billing and line equipment. The time required to run these cross-connections are shown in the graph in Table A. However, Modular and COSMIC types of cross-connects and the expected times are listed under EQUIPMENT. Table A is in two parts, (1) MDF times and (2) Equipment times. The MDF time for a conventional frame can be plotted on the graph in terms of the number of verticals. The cross-connections for telephone, line equipment, and billing are consolidated as equipment times for all types of frames.

> ***Note:*** The ANI Strap for SXS offices must be added to the SXS Intermediate Distributing Frame [IDF] time.

2.04 The dotted line on MDF times is titled MDF-IN (ADVANCED ONLY). This time represents the preliminary work on an order that has not been terminated or connected on the horizontal main distributing frame (HMDF). (A change order is a typical example.) In forecasting estimated time for the preliminary wiring, use times shown in Table A (IN ADVANCE ONLY); however, deduct the time taken from the total

100% IN & TESTED time and the remaining time is the estimated time for completing the order. The MDF-IN (ADVANCED ONLY) time is an option to be used at the discretion of local management. If it is not used, the full MDF- IN estimated time should be allocated to the advance wired order at the time of completion.

2.05 As mentioned, the EQUIPMENT portion of Table A represents all the required cross-connections under one time. Cases may arise where local management will elect to assign mass cross-connect efforts to a given piece of equipment. A seasonal situation such as a college environment might be a typical case. Local management should assign the appropriate percentage of the time factor in Table A to the unique cross-connects in an equipment group. In the case of No. 5 Crossbar, an example might be 4.8 minutes for each Number Group and 2 minutes for each Translator, the sum of which should equal the total of 6.8 minutes as shown in Table A equipment times.

2.06 It must be understood that the work times in Table A represent Bell System averages. It is not likely the work time will precisely represent the actual time required on a particular frame. As a result, equally good productivity on two different frames will not necessarily result in the same percent efficiency. The Table A times, however, do provide a ***constant*** figure from which percent efficiency can be determined. This will require that each location be time studied.

2.07 The frame supervisor must determine how long each work order operation takes on a particular office frame. It is recognized that this will require additional supervisory time but it must be accomplished. When the efficiency objectives are agreed to by second level management, it is then reasonable to compare local work times with Table A times.

C. Time and Motion Study

2.08 The method to be used for determining frame work order times for a particular frame is as follows:

(a) Select a previous month which is representative of an average month for the frame. It should consist of not less than 1000 orders. Throw out abnormalities such as area transfers, cutovers, etc. Determine the amount of cable cuts, line equipment transfers (LETs), etc.

(b) Determine the percentage of order mix by type and complexity.

(c) Determine the percentage of activity mix of nondemand work (cable cuts, LETs, etc).

Suggested categories of orders are:

(1) Inward resident and business (POTS)

(2) Inward resident (with bridge lifters, Dial Long Lines [DLL], message registers, etc)

(3) Inward business multiline (rotary, hunt, message registers, etc)

(4) Outward resident (with bridge lifters, DLL, message registers, etc)

(5) Outward business multiline (rotary, hunt, message registers, etc)

(6) Changes for any of the above categories

(7) Special services

(8) Miscellaneous.

Note: The above suggested categories are for the purpose of determining not only the type of order mix, but also the wiring complexity mix. As the studies are made, the frame supervisor may have special considerations which will require additional categories.

(d) From future loads, select a total of 100 orders that represent the percentages determined in Step (b), and 50 line activities that represent the percentages determined in Step (c).

(e) Perform a time and motion study by actually timing (stop watch) the work effort in placing, terminating, and removing the frame cross-connect wiring. This would include travel time (such as between floors) and recording completion of orders (if done by that person). Eliminate all time lost due to roadblocks such as excessive breaks, lunch, etc. However, these times should be recorded so that total time as well as time without roadblocks can be determined.

Orders being time studied should be assigned to frame persons experienced in the particular work order being studied, and should be distributed as evenly as possible to all frame personnel.

(f) Orders studied in (d) will also be priced using Table A. Total Table A times divided by with and without roadblocks times will result in the development of two work efficiencies expressed in percentages. Having recorded the roadblocks and related lost time, management will be able to set a more realistic efficiency objective.

(g) The measure of frame production is obtained by comparing the estimated jumper work time with the actual work time. The results of the comparison will enable the manager to more effectively recognize and deal with roadblocks detrimental to operational efficiencies. These roadblocks, which are included in the studied times, take such forms as:

(1) Record discrepancies

(2) Hard to find equipment locations

(3) Excessive work breaks

(4) Defective tools and malfunctioning equipment

(5) Standby time

(6) Inadequate work load.

Note: Management scheduled breaks, lunch periods, etc, are not to be included in the studied times.

D. Time Study

2.09 A suggested format for documentation of the time study is shown in Fig. 1 and 2. These forms are duplicated at the end of this section so they can be removed and reproduced locally. The calculations will result in an average time for in, out, change, special service, and miscellaneous type service orders as well as time required for cable cuts, cable transfers, etc. These average times will be used to price and load rather than using Table A times which are Bell System averages.

2.10 The Time Study form (Fig. 1) is intended to be used as a work sheet in documenting the time study activity. A separate form shall be used for each category of activity such as inward, outward, changes, special services, miscellaneous, cable transfers, traffic transfers, etc. The supervisor may wish to separate various activities such as MDF, equipment, etc, if functional work assignments are to be made. These activities are entered in the ACTIVITY blank on the top right of the Time Study form. Entries are made as follows:

Column A: Enter number of orders being time studied.

Column B: Enter number of lines being worked on.

Column C: Using Table A, determine the amount of time for the specific activity and enter in PER LINE column. Multiply PER LINE entry by number of lines in column B and enter results in the TOTAL column.

Note: For all activities for which specific times are not shown in Table "A" (such as "Special Services"), take one MDF time and one equipment time for two wire circuits and two of each for four wire circuits.

Columns D and E: Record actual times as observed.

Column F: Record all roadblocks and associated lost time.

Line G: Total Columns B, C, D, E, and F.

Line H: Determine percentage of efficiency with roadblocks. Multiply Line G (Column C) by 100. Divide the answer by Line G (Column D). Enter final answer in block provided.

Line I: Determine percentage of efficiency without roadblocks. Multiply Line G (Column C) by 100. Divide the answer by Line G (Column E). Enter final answer in block provided.

Line J: After the supervisor and the second level manager have analyzed the roadblocks and their associated lost times, realistic

objectives can be set. Enter the objective in the block provided.

Line K: Divide the times shown for the activity in Column C PER LINE by the efficiency objective (Line J). Multiply the answer by 100. This results in the time per item to be used for computing the local pricing chart. The pricing chart will be used for estimating future work loads. Refer to paragraph 2.12 for more information on the pricing chart.

E. Time Study Summary

2.11 The Time Study Summary form (Fig. 2) is used to summarize the data collected on Time Study form (Fig. 1) in order to obtain an overall efficiency objective for the office. All forms used in the study shall be retained for future reference and analysis purposes. Entries are made into the Time Study Summary as follows:

Lines 1 through 13

Column C: Enter from Time Study forms (Fig. 1), Line G—Column B, the total number of lines studied for inward, outward, changes, etc.

Column D: Enter from Time Study forms (Fig. 1), Line G—Column C, the total hours representing the Bell System Table "A" times (subcolumn TOTAL).

Column E: Enter from Time Study forms (Fig. 1) Line K entry which identifies the objective time per item.

Column F: Multiply each entry of Column C on Lines 1 through 13 by the corresponding entry in Column E. Enter results in Column F.

Line 14: Total Columns C, D, and F.

Line 15: Divide Line 14—Column D by Line 14—Column F. Multiply answer by 100. Enter result into block provided. This overall objective of percentage of efficiency for this office derived from this summary form will be used to compute the forecasted percentage of efficiency on the Daily Forecast (Form E-6619—Line 13).

F. Pricing Chart

2.12 A pricing chart must be set up for each office by the use of Column E in the Time Study Summary (Fig. 2). A sample pricing chart is shown in Fig. 3. As shown in the example, it would be easy to deduce the amount of time required in minutes once the chart is established. If line numbers are greater than 100, chart may be extended to 1000 by the addition of a zero to each line number column heading and then adding a zero to each required pricing time, moving the decimal one digit to the right. For an example of how to use the chart, if you need the total amount of time required for the MDF and equipment of No. 5 crossbar frames for 38 lines of inward movement, add the IN TOTAL times in Column 30 and Column 8. The effective time expected for these lines would be 384 minutes (Column 30) plus 102.4 minutes (Column 8) which equals 486.4 minutes. There is a blank pricing chart on the last page of this section that can be reproduced locally.

G. Pricing of Work

Order Demands

2.13 The measurement of frame work proceeds through two stages:

(1) ***Demand orders*** (customer initiated orders)

(a) In & T Orders

(b) Out & F Orders

(c) Change Orders

(d) Special Service Orders

(e) Miscellaneous Demand Work Orders such as:

- Change cable pair—transfers associated with regular orders
- Temporary suspensions and denials
- Restores

- Intercept changes (operator to machine).

(2) ***Non-Demand Orders*** (includes Company-initiated orders)

(a) Cable transfers and installation line sheets

(b) Line and equipment transfers

(c) Trunk order work.

2.14 The pricing separation of demand order work from nondemand order work allows for an orderly control of work scheduling and forecasting due to the inherent due date differences in each type of work activity. The demand order load is normally made up of very short due dates with considerable fluctuation in volume. The bulk of the nondemand order load contains mostly company-initiated work with a longer due date interval and is programmable. This fundamental difference in work due date provides a basis for procedures which will help match force to load.

Nonorder Demands

2.15 It must be recognized that most frame operations must conduct activities that do not relate to jumper work. Examples are speaker time with the local test desk, equipment verification, desk time, housekeeping, record conciliation, etc. These examples are not all inclusive but represent typical activities. For the purposes of this Plan, the manager is expected to know approximately how much time is required of the frame force for these activities.

2.16 Just as it was necessary to study order work requirements it is equally important to determine time requirements for activities other than running jumpers that are necessary for an effective frame operation. Once the supervisor has made this determination, it must be agreed to by the supervisor's manager.

H. Controlling the Workload

2.17 Local frame force management has little control over the demand order (customer demand) load and must schedule appropriate hours to accommodate this load as required. However, if many demand orders are being delayed and reach the frame too late for pricing and loading prior to the beginning of the shift, or at the same time they are actually due (zero-day), the frame supervisor should document the incident (using Form E-6622) and take necessary action to eliminate the cause. It is likely that other work groups are also adversely affected by late and delayed orders and they would be happy to participate with frame management to remove such production roadblocks. Assistance of higher management should be sought if it is impossible to solve this problem at first level.

2.18 Zero due date orders can be a problem and the number of orders coming due each day is usually a matter of local policy. If the quantity of these orders gets out of hand and becomes a costly and inefficient cross-connect burden, accurate documentation should be sent upward through the lines of organization so that those setting policy are aware of the impact on frame expenses and service. The control records contained herein will provide useful documentation to support and quantify production problem cases.

2.19 Company-initiated nondemand orders (cable transfers, line equipment transfers, trunk orders, etc) should go through a prescheduling phase prior to due date setting. It is the responsibility of the frame supervisor to make sure that the proper inputs of force availability information is fed up through the lines of organization so that due dates realistically reflect what can reasonably be accomplished by the frame force. It must be stressed that frame management can exercise control over company-initiated work due dates providing the data is available far enough in advance and is given to the cable transfer cutover committee (Refer to Section 620-050-020).

Order Bin Arrangement

2.20 To assist in the ease of order handling and pricing, Fig. 4 depicts a recommended bin arrangement. The bin is labeled across the top by the basic service order types. The Programmable File is designed for company initiated work orders. For the service order bins, labeling down the side of the bin is letters for the days of the week. Orders are filed according to the day of the week that they are due. The Today File is for orders awaiting a call for completion. The Completed File is to be used for finished service order work. The labeling down the side of these bins is by thousands digit of telephone number.

2.21 Incoming work orders should be time and date stamped, reviewed for completeness and legibility, and sorted by due date. Zero due date orders and orders received after 5 p.m. should be logged on the Daily Central Office Frame Activity Log (Form E-6622) when work is completed.

Daily Forecast

2.22 A daily workload forecast is one of the ***major keys*** to effective force measurement. This document serves these major functions:

(1) Quantification of tomorrow's ***demand work load*** hours.

(2) Identification of ***Nonorder Hours*** necessary to the frame operation. The percentage of nonorder hours should be monitored to assure that the objective established in 2.16 will be met.

(3) Identification of frame force ***hours available*** to the order work load assigned in terms of hours.

(4) Quantification of ***programmable work load*** assigned in terms of hours.

(5) A projected ***percentage of efficiency*** as compared to Bell System average frame time is established for the forecasted work load.

2.23 The daily forecast of efficiency shall be made by the supervisor using Form E-6619 (Fig. 5). This forecast shall be prepared prior to the start of the designated work day of the frame force. The forecast shall contain all work planned for the 24-hour period established as the work day (such as 4 p.m. to 4 p.m.—8 a.m. to 8 a.m.). This will permit supervision to make adjustments in the daily force required to match the load prior to or at the start of the work day. Details of filling out Form E-6619 are located in Part 3 of this section.

2.24 Local management must determine the time of day when the bulk of the load for the next day has arrived at the frame desk. At this time the orders will be removed from the bin previously described and priced. There are two ways to price a work order: (1) The two basic work operations times (MDF and Equipment) can be added together and one figure used for each line of activity on the order or (2) each of the two work operations can be computed separately. The following example is illustrated in Fig. 3 (both sheets) and Fig. 6.

Example: An office has two kinds of switching machines, No. 5 Crossbar (XB) and Step-by-Step (SXS). The MDF is 200 verticals long, meaning it will take about 6.0 minutes to place and connect a jumper and 3.2 minutes to remove one. Tomorrow's load consists of one hundred service orders as follows:

(a) 10 number changes (5 SXS, 5 XB)

(b) 10 class-of-service changes (5 SXS, 5 XB)

(c) 40 inwards (20 SXS, 20 XB)

(d) 40 disconnects (20 SXS, 20 XB).

The number changes require only equipment work and class-of-service changes require total in and total out at both the equipment and MDF. The equipment portion of Table A shows 7.2 minutes in, 3.6 minutes out for SXS and 6.8 minutes in, 3.4 minutes out for No. 5 XB. This load is computed using the following procedure:

Having determined the number of items of line activity in the work load, the supervisor now has the choice of pricing the total order or pricing by work operation. For this example, the work will be priced by work operation.

To do this, Form E-6619 is divided into three parts; (1) nonorder hours, (2) order load hours, and (3) load and force computations. The Order Load Section must be arranged for pricing by work operations. This is done by titling Columns B to E and F to I as follows: 5XB (MDF and EQ.), and SXS (MDF and EQ.) respectfully.

The supervisor then enters the number of items of line activity on the appropriate line and column such as: 20 inward 5XB items are entered on line 16, Columns B and D (Fig. 6).

Once all the items have been entered, the supervisor then refers to the pricing charts which were prepared locally [See example—Fig. 3 (Sheets 1 and 2)] and enters the total time for the specific work operations in Columns C, E, G, I, and K. For example, the 20 inward 5XB items that were entered on Line 16, Columns B and D, can now

be priced. Using the pricing chart (Fig. 3, Sheet 1), the supervisor finds the time required for the MDF and the equipment cross-connects to be 120 minutes and 136 minutes respectfully and enters the times in Columns C and E.

Considering both switching machines, the total demand order work load equals 18.2 hours (Line 24). The 18.2 hours represents the total time required to complete the work load as established during the time and motion study.

In the example on Form E-6619 (Fig. 6), a total of 40 hours of force are scheduled (Line 9); 14 hours (Line 8) are required for nonorder work which leaves 26 hours available for productive work (Line 10). Line 9 (40 hours) minus Line 8 (14 hours) equals Line 10 (26 hours).

In order to build out a full 26 hours for the available force, the supervisor refers to the Other Work Load (Form E-6623) and selects two cable transfers of 51 pairs, which remain to be half-tapped in a 200 pair transfer, and 56 removals, which remain in a 1000 pair transfer. Using the example Pricing Chart (Fig. 3—Sheets 1 and 2), 306 minutes will be required to place the half taps and 179.2 minutes to remove the 56 cross-connects. The work items are entered on Line 26, Columns B and D, along with the time required in Columns C and E respectfully. This equates to 8.1 hours of work (Line 33).

From historical data collected on E-6622 forms and summarized on Form E-6624, the supervisor enters an additional .5 hour of work which is estimated to be received after 5 p.m. and Zero day. This estimate, along with the totals on lines 24 and 33, are entered in the subtotal blocks of line 34. These blocks are summarized and entered in the total block (line 34) and on line 11 (total order load hours).

In computing Force and Load, the supervisor forecasts an efficiency of 103 percent (line 13) by planning to complete the work in 26 hours, even though the forecasted required time is 26.8 hours.

> ***Note:*** Line 13 equivalent Table A hours in this example is 26.8 hours; this is due to efficiency objective being 100 percent. Had the objective been 96 percent, Line 13 would have been 25.7 and Line 14 Forecasted efficiency would be 98.8.

I. Loading of Work Assignments

2.25 The Loading Sheet, Form E-6620 (Fig. 7), is used by the supervisor to make initial work assignments in order to properly load each available person.

2.26 The Daily Time and Work Log, Form E-6621 (Fig. 8 and 9), is used for individual loading. The sorting of orders into stacks of In, Out, and Changes will assist in the loading procedure. Details on form entries are located in Part 3 of this section.

2.27 It is recommended that orders will be loaded on a bulk basis rather than writing down each order number. If the recording of each order number in the individual load is required, additional lines are provided on the back of the form.

2.28 Required ongoing miscellaneous work and its associated times should be recorded on the Work Inventory Record, Form E-5847 (Fig. 10). This information is to be used for TRICK assignments.

2.29 Overhead time (OHT) work (Trick Duties) designated on Form E-5848, Work Assignment List, is for that particular trick assignment. Fig. 11 illustrates a typical frame work assignment. The work listed on Form E-5848 is performed by the assigned frameperson throughout the shift.

2.30 On Form E-6621, enter the work items in the order that the frameperson must start them. When loading service order work, it may be issued by total service order (TSO) or divided into two groups, MDF (SOF) and Equipment Frames (SOE). If the latter technique is used, list each group of orders on a separate line with the proper designation, SOF and SOE. Estimated work time is obtained from the pricing chart (Fig. 3).

2.31 The work documents, such as service orders, linecuts, and transfers, will be attached to the back copy of Form E-6621. The back copy and the attached documents are delivered to the frame employee at the beginning of the shift.

J. Recording Work Completed

Daily Time and Work Log—Form E-6621

2.32 Each frameperson receives the employee's portion of the E-6621 daily. The frameperson

lists chronologically the shift activities, identifies the type of work, and enters the amount of time spent on each activity.

Daily Central Office Frame Activity Log—Form E-6622

2.33 All productive work completed each day must be logged on Form E-6622 (Fig. 12). This form is also used as a Go Ahead log. The data on this form is used to develop the Daily Actual Percent Efficiency, Percent of Discrepancies, Percent Received After 5 p.m., and Percent Zero Day.

Other Work Log—Form E-6623

2.34 The log identified as Other Work Log-Form E-6623 (Fig. 13) is to be used to record all Trunk Orders, Cut Sheets, Line Sheets, Transfer Sheets, etc. In larger offices it may be desirable to use more than one log and keep the special service and trunk orders on separate logs. Further details are in Part 3 of this section.

Central Office Monthly Control Form Daily Log—Form E-6624

2.35 The Central Office Monthly Control Form Daily Log—Form E-6624 (Fig. 14) is a summary of the Daily Central Office Frame Activity Log (Form E-6622). This form is used to compile the monthly result figures and shall be forwarded to second and third level management.

Speaker Activity Log—Form E-6625

2.36 The Speaker Activity Log—Form E-6625 (Fig. 15) has been developed to record all speaker activity work items. It is self-explanatory and should be used under this Plan. The removal of heat coils, the placement of shoes, and tone need not be recorded if the frameperson remains in attendance. However, if the frameperson resumes other duties, the required information must be logged.

K. Frame Control Record

2.37 The Frame Control Record, Form E-5497 (Fig. 16), is self-explanatory. It provides the frame supervisor with a stroke record and trends the type of problems that are causing five codes. See Part 3 for details of Form E-5497.

3. FORMS

3.01 This part provides additional information for using the forms covered in this section. All forms associated with this plan may be ordered through the local WECO Service Center. These forms are provided in pads of 50 forms per pad, one pad per package. All forms should be ordered by numbers of packages as indicated in the following list. However, the last three forms are intended to be reproduced locally and are attached to the back of this section.

FORM NO.	TITLE
E-5497	Frame Control Record
E-5847	Work Inventory Record
E-5848	Work Assignment List
E-6619	Daily Forecast
E-6620	Loading Sheet
E-6621	Daily Time and Work Log
E-6622	Daily Central Office Frame Activity Log
E-6623	Other Work Log
E-6624	Central Office Monthly Control Form Daily Log
E-6625	Speaker Activity Log
Reproduce locally	Time Study
Reproduce locally	Time Study Summary
Reproduce locally	Pricing Chart

A. Form E-6619—Daily Forecast

3.02 Form E-6619 (Fig. 5) entries are made as follows:

Nonorder Hours—Lines 1 thru 7—The supervisor shall record on the appropriate lines all time required for various nonorder activities necessary to effective frame operations.

Line 8—Add lines 1 through 7 to determine total nonorder hours required.

> ***Note:*** Do not complete lines 9 through 15 until line 34 is complete.

Columns B through K—The headings of these columns may be filled out in one of two ways depending on local supervision's pricing option choice (See paragraph 2.24).

> ***Option 1:*** If pricing by work order type, enter the total number items on lines 16 through 22, and 25 through 31 under column B, disregarding columns D, F, H, and J. This option can be used on any frame and will enable the supervisor to price the total load expected the next work day.
>
> ***Option 2:*** If pricing by type of work operation, write in the type of frame and type of equipment such as No. 5XB, MDF, IDF, BR/LDF, etc, in columns B through K.

Lines 16 through 22—These lines are to be used in option (1) and (2) pricing. List the number of line activities for each type of order, either total order or by work operations on the MDF and appropriate equipment types.

Line 23—Total columns C, E, G, I, and K.

Line 24—Add the totals of line 23, columns C through K and divide by 60 to determine grand total of expected demand work hours.

Lines 25 through 33—Use the same technique as described for lines 16 through 22 to determine time requirements for nondemand order work.

Line 34—Enter total demand work (line 24) and total nondemand work (line 33) in designated blocks. The estimate of work not in hand includes zero due date work and work orders received after 5 p.m. for the next day's work load. This estimate of work can be derived by analyzing the data collected on Form E-6622, Daily Central Office Frame Activity Log, and Form E-6624, CO Monthly Control Form Daily Log. The total of lines 24, 33, and this estimate is entered on line 34.

After line 34 is complete, complete lines 9 through 15.

Line 9—Multiply the total scheduled frame force by 8 to determine how many hours will report for work.

Line 10—Subtract the nonorder hours, line 8, from the total hours, line 9, to determine force hours available for order work.

Line 11—Bring the total up from line 34 and enter it here.

Line 12—Enter here the average Bell System frame equivalent hours required for the determined load. To obtain the ***average*** Bell System frame equivalent hours, multiply line 11 by the percentage of efficiency objective previously set by the supervisor and second level and divide the result by 100.

Line 13—The forecasted percentage of efficiency is developed by dividing the equivalent Bell System hours required for the load, line 12, by the total hours available to work the load, line 10 and multiplying the result by 100.

Line 14—% nonorder hours is developed by dividing total nonorder hours, line 8, by total force, line 9 and multiplying the result by 100. ***It is important that an objective be established and agreed to by the supervisor and second level.***

Line 15—Enter the plus or minus difference between line 10 and line 12, and check the SURPLUS or NEEDED box. If surplus hours result, then ***additional work must be programmed for them*** or surplus hours loaned to other work forces where the need for additional hours exists. If the number of hours available is insufficient for the work load, ***additional hours must be obtained.***

Line 35 through 43—Actuals

Line 35—Total Load hours: Obtained from line 35, Section D, E-6622.

Line 36—Total Order hours: Obtained from line 35, Section E, E-6622.

Line 37—Total Nonorder hours: Obtained from employee Daily Time and Work Logs, E-6621.

Line 38—Total Frame Hours: Obtained from employee Daily Time and Work Logs, E-6621.

Line 39—Employees assigned: Obtained from frame schedule.

Line 40—Employees present: Obtained from employee Daily Time and Work Logs, E-6621.

Line 41—Difference: Enter the plus or minus difference between line 39 and line 40.

Line 42—Percentage of nonorder hours: Divide the nonorder hours (L37) by total frame hours (L38) and multiply by 100.

Line 43—Percentage of Efficiency: Obtained from line 35, Section F, E-6622.

B. Form E-6620—Loading Sheet

3.03 The Loading Sheet (Fig. 7) is for the supervisor's use in individual or bulk loading. Column A is for name and shift. Column B is for loading assignment. Column C is for hours initially loaded. Column D is the time expectancy from the Pricing Chart for the amount of work completed by the employee. Columns E and F are the actual times the employee charged. The form should also be used to record the same information for borrowed employees.

C. Form E-6621—Daily Time and Work Log

3.04 Figures 8 and 9 are examples of the front and back of the Daily Time and Work Log. The following description is keyed to the letters in parenthesis on Fig. 8 (front of E-6621) and 9 (back of E-6621). Form E-6621 is a three part form (self-carbon). The first two copies are on paper and the third is on slightly heavier card stock.

(a) EMPLOYEE—Employee name.

(b) SUPERVISOR—Supervisor name.

(c) REG—Regular hours worked.

(d) EXT—Extra hours worked.

(e) PRE—Premium hours entitled.

(f) TRICK—Trick assignment designation.

(g) CLOCK HOURS WORKED—Clock hours actually worked, indicating lunch period (expressed according to the 24-hour clock; eg, -0800 for 8 a.m., 1600 for 4 p.m.).

(h) DATE—Date work performed.

(i) APPL—Supervisor must initial after approving entries.

(j) These three areas are to be used by the employee for stroking additional items of line activity completed during the shift. If option (2) is used, then the type of work operation must be entered (ie, MDF, EQ., etc) in the column headings.

(k) EXCEPTIONS—Indicate all hours scheduled but not worked (paid or unpaid). Explain in REMARKS on back of form.

(l) TYPE WORK—An alpha coding of assignments or work operations. Table B lists the type of work codes.

(m) ITEM IDENT—An alpha/numeric identification of the work performed. The item identification is used to distinguish work assignments or operations, (service order number, transfer number, etc). It is also used by the frame employee to refer back to a specific line number for preloaded work or when an interrupted work item is started again.

(n) START TIME—Used by the supervisor responsible for loading to specify when a scheduled work assignment must begin. Used by the frameperson to indicate the actual time that performed work began.

(o) END TIME—The actual time the frameperson stopped or completed the assignment or work operation. The end time is always the start time for the next work item.

(p) TOT TIME—The elapsed time between the start and end time, recorded in 1/4 hour increments.

(q) DISP CODE—The status of the work operation performed by the frameperson. For corrective maintenance, these codes are F for trouble found and NTF for no trouble found.

(r) REPT CODE—Enter actual R, C, X, or M reporting code.

(s) WORK CODE—Enter actual work code used. See back of form.

(t) EST-RO-PARCEL-REMARKS—Used to record identification numbers for estimates, routine orders, and parcel numbers associated with a work item. This column is also used for clarifying remarks that will assist in identifying or coding a work assignment. Examples are:

(1) Tagging cables

(2) Helping another employee to run or remove frame jumpers

(3) For unusual situations—enter a brief description of the situation including any roadblocks encountered.

(u) EST TIME—Enter in this column the estimated work completion time in minutes. It is computed by multiplying the number of items by the local frame times. (Use the Pricing Chart.)

(v) RC WC and HOURS—These items show the summary in hours of specific reporting and work codes. An example of this is illustrated in Fig. 17, where 47M/50, 5 1/4 hours is the summary of lines 7, 9, 10, and 11.

(w) Use these lines as needed.

(x) REMARKS—Explain all exceptions and overtime.

3.05 Figures 17 and 18 illustrate a partially completed Form E-6621 used by a frameperson during the shift. Explanation of the entries made by the frameperson as the shift progresses is as follows:

Enter start of shift time (24-hour clock) in the CLOCK HOURS WORKED space.

Frameperson should complete assigned work in the order that it is listed on Form E-6621, and within the responsibilities listed on the Work Assignment List, Form E-5848 (Fig. 11). The frameperson enters on the first line after the preloaded items, in the ITEM IDENT column, the first work operation of the day. When working on preloaded work, the frameperson enters the line number that refers back to the preloaded item (lines 6, 7, 8, 10, 11, 12, and 13).

When performing work that was not preloaded or when unable to complete work that was preloaded, do as follows.

Additional items—Enter type of work, the number of item; also in REMARKS, enter the reason (dispatched) and the remaining time information per lines 5 and 9. Stroke under the appropriate columns the number of additional line activities completed as described in paragraph 3.04(j).

Deviation items—Enter on line of preloaded items, the number and to whom referred, per line 4.

The example on line 5 shows that it was necessary to clear a case of trouble as the first work operation of the day.

Nonscheduled assignment work is interrupted to complete scheduled assignment work (Line 7).

Each end time is the start time for the next line.

Disposition (DISP) code is entered for appropriate item (Line 5).

Remarks are entered to clarify specific tasks (Lines 2, 5, 9, 10, 11, 12).

Time spent placing and removing test shoes, continuity check for LTD, etc, is included in service order time when work takes less than 15 minutes. If a type of work requires 15 or more minutes, the time and appropriate work code should be entered as a separate item.

Work associated with estimates, routine orders, etc, must be reported on separate lines (Line 2).

Work associated with trouble tickets must be reported on separate lines (Line 5).

Other activity, such as on-the-job training, safety meetings, conferences, etc, should be reported separately.

When assisted on frame by another person, enter in REMARKS, "assisted by ____" (line 11).

When assisting another person on the frame, enter in REMARKS "assisting _____".

3.06 Figures 17 and 18 also illustrate the additional entries made on the form by the frameperson at the end of the shift. These are:

Actual shift time worked, 0800-1900 (top of form).

Enter actual hours worked in REG. When applicable, enter extra hours worked (EXT) and appropriate premium (PRE) entries (top of form).

Enter when applicable, EXCEPTION hours.

D. Form E-6622—Daily Central Office Frame Activity Log

3.07 The following explanation is provided for the preparation of Form E-6622 (Fig. 12).

TELEPHONE NO—Record the telephone number of each simple order. Record the billing number (pilot) of each complex order. Orders from Other Work Log (Form E-6623), service orders, special service orders or any other orders that are bulk advanced should be bulk recorded on lines 30 through 31. This work may be recorded individually on lines 1 through 29 on a separate sheet if required by the office. Work from the Other Work Log (Form E-6623) which is dispatched during the work day should be recorded individually. The type of work and serial number are to be entered in this column (cable transfer 1234, LET#164, etc).

CABLE PAIR EQPT—Use of this column is optional. It is intended for quick identification requirements.

ITEMS or LINES—Record the number of items associated with each service order, trunk order, cable transfers, LET, cut sheet, etc. This column is used to develop data for percent of discrepancies.

SERVICE ORDER NUMBERS ONLY—Record in this column only service order numbers. For bulk loaded service orders, enter on line 31 the number of service orders completed. This column is used to develop data for percent zero due date or after-five orders.

Column A—Show the total number of discrepancies (1, 2, 3, etc) for each order or item recorded today.

Column B—Check if zero due date order received after commercial office opens.

Column C—Check this column if any order is received after 5 p.m. that is due the next day, but before commercial office opens on the due date. Record the number of such orders received that were advanced or cut by the employees working the bulk work load individually in lines 1 through 29.

Columns D & E—Initials of employee calling go ahead item to frame and time the item was called.

Columns F & G—These columns serve two purposes. (1) Record initials of the employee to whom a go ahead item was given. (2) Record the initials of the employee to whom a discrepancy was referred and the time of referral. (These will probably most often be referred to Assignment personnel.)

Columns H & I—(1) Initials of employee completing order and time completed. (2) Initials of employee calling a discrepancy resolution and time.

Note: Columns D through I are also used to determine frame cut times on go ahead type orders.

Columns J through Z—Enter in the appropriate column the number of items of line activity completed. These columns will

be used to develop the actual percent of efficiency.

Line 30—Enter the number of completed Other Work Log (Form E-6623) items that were bulk loaded in column ITEMS OR LINES. Also enter the appropriate number in column A and J through Z.

Line 31—Enter the number of completed bulk loaded service order items of line activity in column ITEMS OR LINES. Also enter the appropriate number of items in columns A, B, C, and J through Z.

Line 32—Total columns ITEMS OR LINES, SERVICE ORDER NUMBERS ONLY, and columns A through C and J through Z.

Line 33—Using the Pricing Chart, price out the number of complete items on Line 32, columns J through Z.

Line 34, Section A—Enter percent discrepancies (multiply column A, Line 32 by 100 and divide by line 32 total for Items or Lines). This information provides supervision with roadblock data.

Line 34, Section B—Enter percent zero due (multiply column B, Line 32 by 100 and divide by total line 32 service order numbers). This information provides supervision with trend data for forecasting purposes.

Line 34, Section C—Enter percent after 5 (multiply column C, Line 32 by 100 and divide by total line 32 service order numbers). This information provides supervision with trend data for forecasting purposes.

Line 35, Section D—Add columns 33J through 33Z and divide total by 60 for expected hours required each day. This will reflect all cross-connect activities and the total load hours required to perform the work as indicated by local frame pricing chart.

Line 35, Section E—Total all productive hours, including those borrowed (if any). Source is Form E-6621, Daily Time and Work Log. ***Note:*** The frame forces must maintain daily time cards reflecting productive and nonproductive work operations.

Line 35, Section F—Actual percent of efficiency. Multiply Section D hours by the objective percent efficiency and divide by Section E hours. This result is also entered on Form E-6619, Line 43, Column N, percent efficiency.

E. Form E-6623—Other Work Log

3.08 The Other Work Log (Fig. 13) is generally used to record company initiated work. Careful attention to the due date must be maintained. All such work should be priced and fed into the daily work load as the demand order load and available force will permit.

Lines 1 through 35

Column Order No. and Related Order No.—Enter service order, estimate, routine, trunk, and traffic order numbers.

Column Control Office—Enter control office as indicated by trunk order.

Column Date—Enter date received and date due.

Column Description of Work—Enter the number of line activity items in appropriate column.

Column Progress—(a) Enter in the PRELIMINARY and PULLOUT columns the number of items remaining to be completed. Additional columns are provided on the form which enables the supervisor to track the remaining items to be completed.

Column Progress—(b) Enter in the TIME REQUIRED columns the required time for Preliminary and Pullout. Use the pricing chart to determine these entries.

Column Date Completed—Enter the dates the preliminary and pullouts are completed.

F. Form E-6624—Central Office Monthly Control Form Daily Log

3.09 The following information is provided for use in the preparation of Form E-6624 (Fig. 14).

Columns A through E—Taken directly from the Daily Central Office Frame Activity Log (Form E-6622, Line 32).

Column F—Taken from Daily Central Office Frame Activity Log E-6622—Line 35-Section D.

Column G—Taken from Daily Central Office Frame Activity Log (Form E-6622), line 35, section E.

Column H—Taken from Daily Forecast (Form E-6619), line 37, column L, Total Nonorder hours.

Column I—Forecasted percent efficiency—Obtain from line 13, Daily Forecast (Form E-6619).

Column J—Taken from Form E-6622, line 35, section F.

Column K—Taken from Daily Forecast (Form E-6619), line 14.

Column L—Taken from Form E-6619, line 42, column N; or by dividing column H by the sum of column G and H, and multiplying by 100.

Monthly % Discrepancies—Total C divided by Total A × 100.

Monthly % Zero Due—Total D divided by Total B × 100.

Monthly % After-Five Hours—Total E divided by Total B × 100.

Monthly % Total Efficiency—Total Column F times objective percent efficiency and divided by Column G.

Monthly % Non-Order—Total Column H divided by the sum of Columns G and H and multiplied by 100.

G. Form E-6625—Speaker Activity Log

3.10 The Speaker Activity Log (Fig. 15) is used to record certain activities requested from the Repair Service Bureaus.

Note: Activities of short duration in which the frame worker remains in attendance will be optional with local supervision as to whether or not the item is logged. However, if frameworker goes on to other duties, items must be logged.

H. Form E-5497—Frame Control Record

3.11 The Frame Control Record (Fig. 16) is used to trend problems that are causing 5 codes. Lines are provided for recording data on a daily basis. The bottom three lines are used for objectives on a 10-day, 20-day, and total period basis. Objectives should be established by the first day of the report period for the indicated components.

I. Form E-5847—Work Inventory Record

3.12 The Work Inventory Record (Fig. 10) is used to record work that is usually programmable. Generally, the work is of a routine, ETL nature.

J. Form E-5848—Work Assignment List

3.13 The Work Assignment List (Fig. 11) is used to describe work of routine nature such as: turn on soldering irons, housekeeping, and other work assignments.

TIME STUDY (TO BE REPRODUCED LOCALLY)

OFFICE _____ DATE _____ ACTIVITY _____
(IN, OUT, CHG-MDF, EQ, ETC)

A	B	C		D	E	F	
NO. OF ORDERS	NUMBER OF LINES	BELL SYSTEM TIME *1		ACTUAL TIME		ROAD BLOCK	
		PER LINE	TOTAL	W/RB *2	WO/RB *3	TIME LOST	REASON FOR ROAD BLOCK
(G) TOTALS							

(H) PERCENT EFFICIENCY W/RB = $\frac{\text{LINE G (COLUMN C)}}{\text{LINE G (COLUMN D)}}$ X 100 = _____

(I) PERCENT EFFICIENCY WO/RB = $\frac{\text{LINE G (COLUMN C)}}{\text{LINE G (COLUMN E)}}$ X 100 = _____

(J) EFFICIENCY OBJECTIVE = _____

(K) OBJECTIVE TIME PER ITEM = $\frac{\text{COLUMN C (PER LINE)}}{\text{LINE J}}$ X 100 = _____

*1 TIME IN MINUTES FROM TABLE A IN SECTION 201-200-010
*2 W/RB = WITH ROADBLOCKS
*3 WO/RB = WITHOUT ROADBLOCKS

Fig. 1—Time Study (2.08, 2.09, 2.10)

TIME STUDY SUMMARY (TO BE REPRODUCED LOCALLY)

OFFICE_____ DATE_____

A	B	C	D	E	F	
LINE	TYPE OF ACTIVITY	NUMBER OF LINE ACTIVITIES	BELL SYSTEM TOTAL TABLE A TIME	LOCAL FRAME TIME		REMARKS
				PER ITEM	TOTAL	
1	INWARD MDF / EQ. / TOTAL					
2	OUTWARD MDF / EQ. / TOTAL					
3	CHANGES # / MDF					
4	SPECIAL SERVICE IN / OUT					
5	MISCELLANEOUS					
6	TRUNK ORDER IN / OUT					
7	CABLE TRANSFER IN / OUT					
8	TRAFFIC TRANSFERS					
9	LINE & STATION TRANS.					
10	DENIALS					
11	RESTORALS					
12	INTERCEPT OPR. TO MACHINE					
13						
14	TOTAL			X		

15 OVERALL PERCENT EFFICIENCY = LINE 14 (COL. D) X 100 ÷ LINE 14 (COL. F.) ☐

Fig. 2—Time Study Summary (2.08, 2.10, 2.12)

PRICING CHART (TIME IN MINUTES)

TO BE REPRODUCED LOCALLY

OFFICE HOMETOWN

DATE JAN. 5, 1978

EQUIPMENT- 5X8 | NUMBER OF VERTICALS- 200

NUMBER OF LINES TO BE WORKED ON		1	2	3	4	5	6	7	8	9	10	20	30	40	50	60	70	80	90
IN	MDF	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60	120	180	240	300	360	420	480	540
	EQ	6.8	13.6	20.4	27.2	34.0	40.8	47.6	54.4	61.2	68	136	204	272	340	408	476	544	612
	TOTAL	12.8	25.6	38.4	51.2	64.0	76.8	89.6	102.4	115.2	128	256	384	512	640	768	896	1024	1152
OUT	MDF	3.2	6.4	9.6	12.8	16.0	19.2	22.4	25.6	28.8	32	64	96	128	160	192	224	256	288
	EQ	3.4	6.8	10.2	13.6	17.0	20.4	23.8	27.2	30.6	34	68	102	136	170	204	238	272	306
	TOTAL	6.6	13.2	19.8	26.4	33.0	39.6	46.2	52.8	59.4	66	132	198	264	330	396	462	528	594
CHANGE	EQ IN	9.2	18.4	27.6	36.8	46.0	55.2	64.4	73.6	82.8	92	184	276	368	460	552	644	736	828
	MDF	10.2	20.4	30.6	40.8	51.0	61.2	71.4	81.6	91.8	102	204	306	408	510	612	714	816	918
MISCELLANEOUS																			
SPECIAL SERVICE IN	MDF																		
	EQ																		
	TOTAL																		
SPECIAL SERVICE OUT	MDF																		
	EQ																		
	TOTAL																		
CABLE TRANSFERS	IN	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60	120	180	240	300	360	420	480	540
	OUT	3.2	6.4	9.6	12.8	16.0	19.2	22.4	25.6	28.8	32	64	96	128	160	192	224	256	288
	TOTAL	9.2	18.4	27.6	36.8	46.0	55.2	64.4	73.6	82.8	92	184	276	368	460	552	644	736	828
DENIALS		2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20	40	60	80	100	120	140	160	180
RESTORALS		2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20	40	60	80	100	120	140	160	180
INTERCEPT OPR TO MACH.		1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10	20	30	40	50	60	70	80	90

Fig. 3—Pricing Chart Example (Sheet 1 of 2) (2.12, 2.24, 2.30)

PRICING CHART (TIME IN MINUTES)

TO BE REPRODUCED LOCALLY

OFFICE HOMETOWN DATE JAN. 5, 1978

EQUIPMENT- SXS NUMBER OF VERTICALS- 200

NUMBER OF LINES TO BE WORKED ON		1	2	3	4	5	6	7	8	9	10	20	30	40	50	60	70	80	90
IN	MDF	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60	120	180	240	300	360	420	480	540
	EQ	7.2	14.4	21.6	28.8	36.0	43.2	50.4	57.6	64.8	72	144	216	288	360	432	504	576	648
	TOTAL	13.2	26.4	39.6	52.8	66.0	79.2	92.4	105.6	118.8	132	264	396	528	660	792	924	1056	1188
OUT	MDF	3.2	6.4	9.6	12.8	16.0	19.2	22.4	25.6	28.8	32	64	96	128	160	192	224	256	288
	EQ	3.6	7.2	10.8	14.4	18.0	21.6	25.2	28.8	32.4	36	72	108	144	180	216	252	288	324
	TOTAL	6.8	13.6	20.4	27.2	34.0	40.8	47.6	54.4	61.2	68	136	204	272	340	408	476	544	612
CHANGE	EQ	9.2	18.4	27.6	36.8	46.0	55.2	64.4	73.6	82.8	92	184	276	368	460	552	644	736	828
	MDF	10.8	21.6	32.4	43.2	54.0	64.8	75.6	86.4	97.2	108	216	324	432	540	648	756	864	972
MISCELLANEOUS																			
SPECIAL SERVICE IN	MDF																		
	EQ																		
	TOTAL																		
SPECIAL SERVICE OUT	MDF																		
	EQ																		
	TOTAL																		
CABLE TRANSFERS	IN	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60	120	180	240	300	360	420	480	540
	OUT	3.2	6.4	9.6	12.8	16.0	19.2	22.4	25.6	28.8	32	64	96	128	160	192	224	256	288
	TOTAL	9.2	18.4	27.6	36.8	46.0	55.2	64.4	73.6	82.8	92	184	276	368	460	552	644	736	828
DENIALS		2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20	40	60	80	100	120	140	160	180
RESTORALS		2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20	40	60	80	100	120	140	160	180
INTERCEPT	OPR TO MACH.	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10	20	30	40	50	60	70	80	90

Fig. 3—Pricing Chart Example (Sheet 2 of 2) (2.12, 2.24, 2.30)

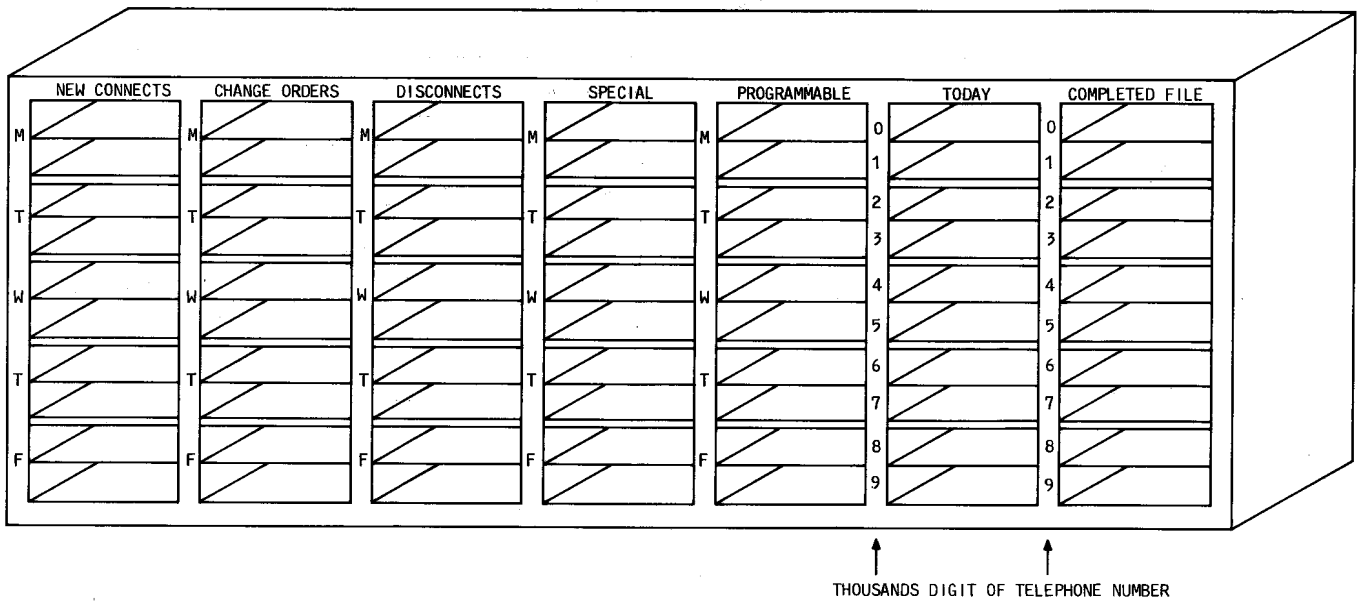

Fig. 4—Service Order Filing Bins for Large Operations (2.20)

DAILY FORECAST

E6619

OFFICE DATE

NON ORDER HOURS		FORCE AND LOAD			
1. DESK		9. TOT SCHED FORCE X 8			
2. SPEAKER		10. TOT AVAIL HOURS L 9 - L 8			
3. HOUSEKEEPING		11. TOT ORD LOAD HRS L 34			
4. EQUIPMENT VERIFICATION		12. EQUIV. TABLE A HRS. L11 X OBJ % EFF ÷ 100			
5. MEETINGS		13. FORECASTED % EFF L12 ÷ L10 X 100			
6. BREAKS		14. % NON ORD HRS. L8 ÷ L9 X 100			
7.			HOURS	SURPLUS	NEEDED
8. TOTAL ADD L1 THRU L7		15. DIFFERENCE ± L10 AND L11			

COL A	B	C	D	E	F	G	H	I	J	K	
DEMAND WORK	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES	
16. IN & T											
17. OUT & F											
18. CHANGE											
19. SPECIAL SERVICE											
20. MISC											
21.											
22.											
23. TOTAL	X		X		X		X		X		
24. TOTAL 23 B THROUGH K ÷ 60 = DEMAND WORK EXPECTED HOURS											
NON DEMAND WORK	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES	
25. TRUNK ORDER											
26. CABLE TRANSFER											
27. L.E.T.											
28. CUT SHEETS											
29.											
30.											
31.											
32. TOTAL	X		X		X		X		X		
33. TOTAL 32 B THROUGH K ÷ 60 = NON DEMAND WORK EXPECTED HOURS											

34. TOTAL EXPECTED ORDER LOAD HOURS	DEMAND WORK L24		
	+ NON DEMAND WORK L33	=	
	+ ESTIMATED WORK NOT IN HAND		

REMARKS

ACTUALS

	L		M		N
35. TOTAL LOAD HOURS		39. EMPLOYEES ASSIGNED		42. PERCENT NON ORDER HOURS L 37 ÷ L38 X 100	
36. TOTAL ORDER HOURS		40. EMPLOYEES PRESENT		43. PERCENT EFFICIENCY = L35 - SECT. F - E-6622	
37. TOTAL NON ORDER HOURS		41. DIFFERENCE			
38. TOTAL FRAME HOURS					

Fig. 5—Daily Forecast—Form E-6619 (2.22, 3.02)

DAILY FORECAST

E6619

OFFICE HOMETOWN

DATE 1/10/78

NON ORDER HOURS		FORCE AND LOAD			
1. DESK	6	9. TOT SCHED FORCE X 8	40		
2. SPEAKER	4	10. TOT AVAIL HOURS L 9 - L 8	26		
3. HOUSEKEEPING	½	11. TOT ORD LOAD HRS L 34	26.8		
4. EQUIPMENT VERIFICATION	1	12. EQUIV. TABLE A HRS. L11 X OBJ % EFF ÷ 100	26.8		
5. MEETINGS		13. FORECASTED % EFF L12 ÷ L10 X 100	103		
6. BREAKS	2½	14. % NON ORD HRS. L8 ÷ L9 X 100	35%		
7.			HOURS	SURPLUS	NEEDED
8. TOTAL ADD L1 THRU L7	14	15. DIFFERENCE ± L10 AND L11	.8		✓

COL A	B	C	D	E	F	G	H	I	J	K
	5XB		5XB		SXS		SXS			
DEMAND WORK	MDF		EQ		MDF		EQ			
	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES
16. IN & T	20	120	20	136	20	120	20	144		
17. OUT & F	20	64	20	68	20	64	20	72		
18. CHANGE	5	46	10	102	5	46	10	108		
19. SPECIAL SERVICE										
20. MISC										
21.										
22.										
23. TOTAL		230		306		230		324		
24. TOTAL 23 B THROUGH K ÷ 60 = DEMAND WORK EXPECTED HOURS										18.2
NON DEMAND WORK	MDF-IN		MDF-OUT							
	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES	ITEMS	MINUTES
25. TRUNK ORDER										
26. CABLE TRANSFER	51	306	56	179.2						
27. L.E.T.										
28. CUT SHEETS										
29.										
30.										
31.										
32. TOTAL		306		179.2						
33. TOTAL 32 B THROUGH K ÷ 60 = NON DEMAND WORK EXPECTED HOURS										8.1

34. TOTAL EXPECTED ORDER LOAD HOURS	DEMAND WORK L24	18.2	
	+		
	NON DEMAND WORK L33	8.1	= 26.8
	+		
	ESTIMATED WORK NOT IN HAND	.5	

REMARKS

ACTUALS

	L		M		N
35. TOTAL LOAD HOURS		39. EMPLOYEES ASSIGNED		42. PERCENT NON ORDER HOURS L 37 ÷ L38 X 100	
36. TOTAL ORDER HOURS		40. EMPLOYEES PRESENT		43. PERCENT EFFICIENCY = L35 - SECT. F - E-6622	
37. TOTAL NON ORDER HOURS		41. DIFFERENCE			
38. TOTAL FRAME HOURS					

Fig. 6—Daily Forecast Example—Form E-6619 (2.24)

LOADING SHEET

E-6620

OFFICE DATE

A	B	C	D	E	F	
NAME	ASSIGNMENT	HOURS LOADED	EXPECTED ORDER TIME	ACTUAL ORDER TIME	NON-ORDER TIME	
					(M)	(R)

Fig. 7—Loading Sheet—Form E-6620 (2.25, 3.03)

DAILY TIME AND WORK LOG E-6621

EMPLOYEE (A)	SUPERVISOR (B)	REG (C)	EXT (D)	PRE (E)
TRICK (F)	CLOCK HOURS WORKED (G)	DATE (H)	APPL (I)	

MDF (J)		(J)		(J)		EXCEPTIONS (K)	
IN	OUT	IN	OUT	IN	OUT	CODE	HOUR

EMPLOYEE DATE PG. OF

(L) TYPE WORK	(M) ITEM IDENT	(N) START TIME	(O) END TIME	(P) TOT TIME	(Q) DISP CODE	(R) REPT CODE	(S) WORK CODE	(T) EST-RO-PARCEL REMARKS	(U) EST TIME
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

RC WC (V)							
HOURS							

Fig. 8—Daily Time and Work Log—Form E-6621 (Front) (2.26, 3.04)

TYPE WORK	ITEM IDENT	START TIME	END TIME	TOT TIME	DISP CODE	REPT CODE	WORK CODE	EST-RO-PARCEL REMARKS	EST TIME
13	(W)								
14									
15									
16									
17									
18									
19									
20									
21									
22									

REMARKS (X)

WORK CODES

ORDER HOURS

SO SERVICE ORDERS
TO TRUNK ORDERS
CO USSO ORDERS
ST LINE TRANSFER
ET EQUIPMENT TRANSFER
CT CABLE TRANSFER
ES EST., KC, RO
LM UNMEASURED M HOURS

NON-ORDER HOURS

MS MISCELLANEOUS UNAVAILABLE HOURS (R & M)
OH OVERHEAD CHANGE HOURS
TT TRAVEL TIME ..... TRANSPORTATION OUTSIDE NORMAL WORK LOCATION.
TF TRAINING - FORMAL ..... PLANT SCHOOL
TJ TRAINING - ON-THE-JOB ..... CORRESPONDENCE COURSES INCLUDED.
SA-SF SPECIAL PROJECTS ..... AS REQUESTED BY SUPERVISOR.
SP SPEAKER
VH VERIFICATION HOUR
DK DESK
BR BREAKS

Fig. 9—Daily Time and Work Log—Form E-6621 (Back) (2.26, 3.04)

FORM E-5847
(12-69)

WORK INVENTORY RECORD

DATE_____ TRICK, JOB OR GROUP_____

REFERENCE	WORK ITEM DESCRIPTION	NUMBER OF UNITS	FREQ.	TIME _____ PER _____
			TOTAL	

PRINTED IN U.S.A.

PAGE NO._____

Fig. 10—Work Inventory Record—Form E-5847 (2.28, 3.12)

FORM E-5848
(9-76)

WORK ASSIGNMENT LIST

TRICK OR JOB ASSIGNMENT 1-D

WORK ITEMS	
0700 - 0730	Check tips and turn on soldering irons
0730 - 1100	Work assigned load
1100 - 1200	Lunch
1200 - 1300	Relieved dispatcher
1300 - 1600	Work denials and restorals and assist local and toll test boards (speaker) and any other duties assigned by supervisors

Printed in U.S.A.

Fig. 11—Work Assignment List—Form E-5848 (2.29, 3.05, 3.13)

DAILY CENTRAL OFFICE FRAME ACTIVITY LOG

E-6622

DATE

OFFICE

SHEET OF SHEETS

	TEL. NO.	CABLE PAIR EQPT	ITEMS OR LINES	SERVICE ORDER NUMBERS ONLY	A DISCP.	B ZERO DUE DATE	C AFTER FIVE'S	D REQUESTED BY	E REQUESTED TIME	F DISPATCHED TO	G DISPATCHED TIME	H COMP BY	I COMP TIME	J IN & T	K OUT & F	L CHANGES MDF	M CHANGES	N SPECIAL SERVICES IN	O SPECIAL SERVICES OUT	P MISC	Q LINE & STA TRS	R TRF TRS L.E.T.	S DENY & REST.	T CABLE TRANSFERS IN	U CABLE TRANSFERS OUT	V INTEPT OPR TO MACH	W	X	Y	Z	REMARKS
1																															1
2																															2
3																															3
4																															4
5																															5
6																															6
7																															7
8																															8
9																															9
10																															10
11																															11
12																															12
13																															13
14																															14
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21																															21
22																															22
23																															23
24																															24
25																															25
26																															26
27																															27
28																															28
29																															29
30	OTHER WORK LOG																														30
31	BULK ORDERS COMPLETED																														31
32	TOTALS			NUMBER OF S.O. NO.=																											32
33	EXPECTED TIME = PRICING CHART																														33
34	SECTION A % DISC = 32A X 100 ÷ 32 ITEMS OR LINES =					SECTION B % ZERO DUE = 32B X 100 ÷ 32 SERVICE ORDER NO. =															SECTION C = % AFTER 5PM = 32C X 100 ÷ 32 SERVICE ORDER NO =													34
35	SECTION D TOTAL LOAD HOURS = TOTAL ALL LINE 33 J THRU Z ÷ 60							SECTION E = TOTAL PRODUCTIVE ORDER HOURS PLUS BORROWED HOURS												SECTION F = % EFFICIENCY = SECTION D X OBJ % EFF. ÷ SECTION E													35

Fig. 12—Daily Central Office Frame Activity Log—Form E-6622 (2.33, 3.07)

DATE

OFFICE

OTHER WORK LOG

FORM E-6623
(1-78)

SHEET OF SHEETS

	ORDER NO. OR CABLE TRANS. ETC SERIAL NO.	RELATED ORDER NO.	CONTROL OFFICE	DATE		DESCRIPTION OF WORK NO. OF ITEMS			PROGRESS NO. ITEMS TO BE COMPLETED				DATE COMPLETED		REMARKS
				REC'D	DUE	CONN.	DISC.	TRANS.	PRELIMINARY	TIME REQUIRED	PULL OUT	TIME REQUIRED	PREL	PULLOUT	
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
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23															
24															
25															
26															
27															
28															
29															
30															
31															
32															
33															
34															
35															

Fig. 13—Other Work Log—Form E-6623 (2.34, 3.08, 3.09)

CENTRAL OFFICE MONTHLY CONTROL FORM DAILY LOG

E-6624
(1-78)

DISTRICT _____ OFFICE _____ MONTH _____

DAY OF MONTH	LINE 31		LINE 31A # DISCREP.	LINE 31B ZERO DUE	LINE 31C AFTER 5	LOAD HOURS	PRODUCTIVE HOURS	NON-ORDER HOURS	% EFFICIENCY		% NON-ORDER	
	ITEMS OR LINES	ORDERS							FORE	ACT	FORE	ACT
	A	B	C	D	E	F	G	H	I	J	K	L
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
TOTAL												

MONTHLY % DISCREPANCIES = TOTAL C ÷ TOTAL A X 100

% ZERO DUE = TOTAL D ÷ TOTAL B X 100

% AFTER FIVE = TOTAL E ÷ TOTAL B X 100

% TOTAL EFFICIENCY = TOTAL COL - F X OBJ. EFF ÷ G

% NON-ORDER COL H ÷ (COL G + COL H) X 100

Fig. 14—Central Office Monthly Control Form Daily Log—Form E-6624 (2.35)

SPEAKER ACTIVITY LOG

E-6625
(1-78)

OFFICE

DATE

CABLE	PAIR	COILS		SHOES		TONE		SHT	GRD	TESTER		TIME OPEN	TIME CLOSED	REMARKS
		OUT	IN	UP	DWN	UP	DWN			POS.	INIT.			

Fig. 15—Speaker Activity Log—Form E-6625 (2.36, 3.10)

FRAME CONTROL RECORD

FORM E-5497 (7-69)

	DATE	FRAME CODES	REG. ERRORS	INCPT. ERRORS	TROUBLE REPORT BY TYPE OF FRAME					TROUBLE REPORT TREND BY TYPE												
					MDF	IDF / LDF	NG / BR	TRNSL / NN	TDF	CROSS CONNECTIONS					SOLDER SPLASH	WIRE CLIPPING	INCPT. TOOLS	HEAT COILS		CAR-BONS	P.S.C. ERRORS	
										WRONG	CUT	BROKEN	LOOSE	DISC.				MISSING	OTHER			
1																						
5																						
10																						
15																						
20																						
25																						
30																						
31																						
	TOTAL																					
OBJ	10 DAYS																					
OBJ	20 DAYS																					
OBJ	TOTAL																					

OFFICE/DIST. _____ MONTH _____

Fig. 16—Frame Control Record—Form E-5497 (2.37, 3.11)

DAILY TIME AND WORK LOG E-6621

EMPLOYEE	SUPERVISOR	REG	EXT	PRE
J. Jones	A. Adams	8	2	1

TRICK	CLOCK HOURS WORKED	DATE	APPL	
D-1	0800 to 1900	1-10-77		

MDF		5XB EQUIP				EXCEPTIONS	
IN	OUT	IN	OUT	IN	OUT	CODE	HOUR
111		1					

EMPLOYEE				DATE			PG. OF		
TYPE WORK	ITEM IDENT	START TIME	END TIME	TOT TIME	DISP CODE	REPT CODE	WORK CODE	EST-RO-PARCEL REMARKS	EST TIME
OMT		1630							30
CTT	123-6 11 items	0900						EST 23467	106
SOE	33 items								224
SOF	25 items	DEVIATION ON 2 ITEMS-REFERRED TO TEST CENTER							120
CMA	TT-9	0800	0900	1	F	47A	SA-SF	Dispatched	
6	2	0900	0930	½		5M	CT		
7	3	0930	1045	1¼		47M	SO		
8	2	1045	1130	¾		5M	CT		
9	4 items	1130	1200	½		47M	SO	Dispatched	
10	4	1300	1500	2		47M	SO	Assisted by B. Brown	
11	3	1500	1630	1½		47M	SO	Assisted by B. Brown	
12	1	1630	1700	½		47M	OH	Cleaned Area	

RC WC	47R/SA-SF	5M/CT	47M/SO	47M/OH				
HOURS	1	3¼	5¼	½				

Fig. 17—Sample Entries for Bulk Loading—Form E-6621 (Front) (3.04, 3.05, 3.06)

TYPE WORK	ITEM IDENT	START TIME	END TIME	TOT TIME	DISP CODE	REPT CODE	WORK CODE	EST-RO-PARCEL REMARKS	EST TIME
13	2	1700	1900	2		5M	CT		
14									
15									
16									
17									
18									
19									
20									
21									
22									

REMARKS 2 hours overtime working with testdesk and cable splice EST 23464

WORK CODES

ORDER HOURS

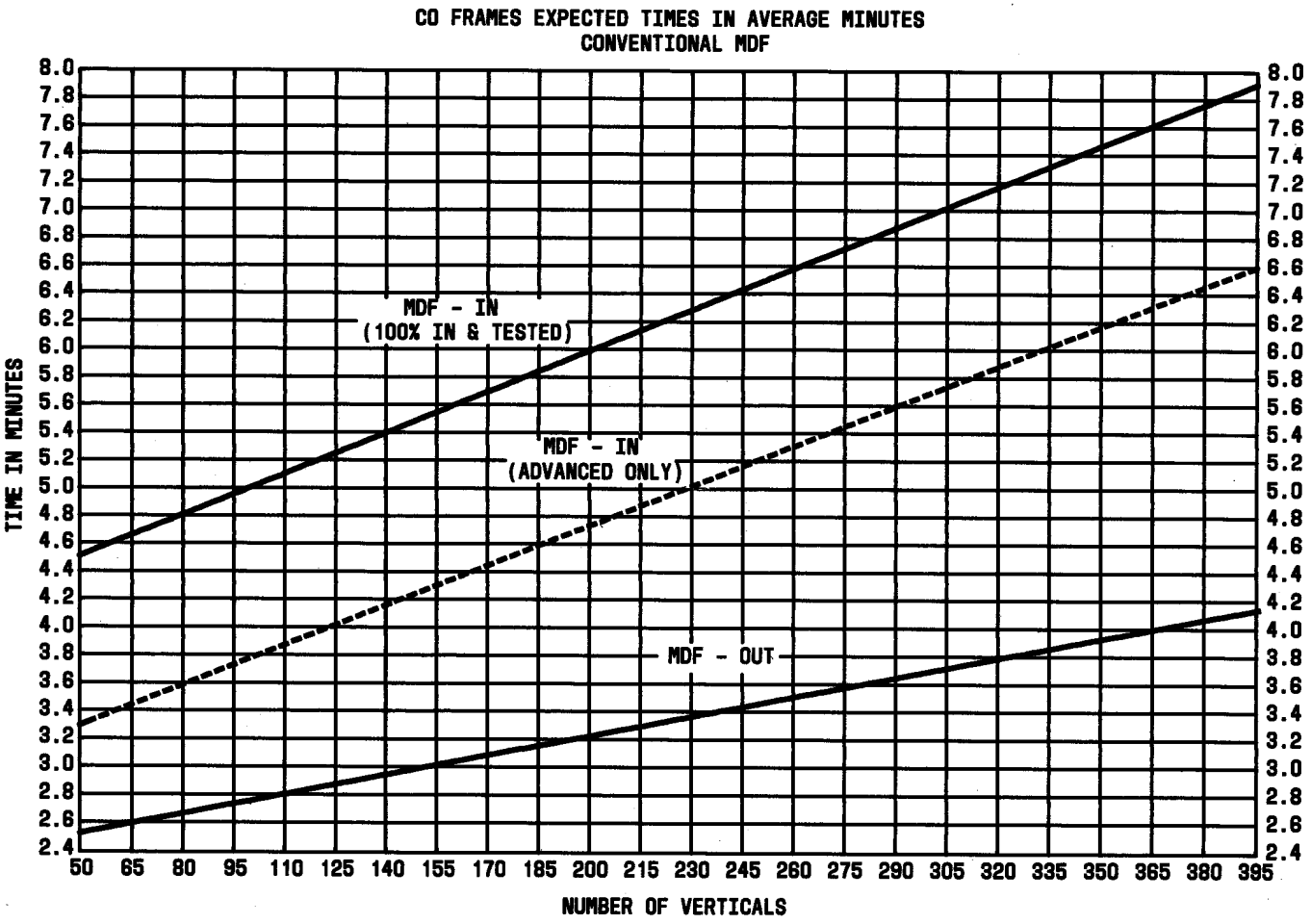
SO SERVICE ORDERS
TO TRUNK ORDERS
CO USSO ORDERS
ST LINE TRANSFER
ET EQUIPMENT TRANSFER
CT CABLE TRANSFER
ES EST., KC, RO
LM UNMEASURED M HOURS

NON-ORDER HOURS

MS MISCELLANEOUS UNAVAILABLE HOURS (R & M)
OH OVERHEAD CHANGE HOURS
TT TRAVEL TIME ..... TRANSPORTATION OUTSIDE NORMAL WORK LOCATION.
TF TRAINING - FORMAL ..... PLANT SCHOOL
TJ TRAINING - ON-THE-JOB ..... CORRESPONDENCE COURSES INCLUDED.
SA-SF SPECIAL PROJECTS ..... AS REQUESTED BY SUPERVISOR.
SP SPEAKER
VH VERIFICATION HOUR
DK DESK
BR BREAKS

Fig. 18—Sample Entries for Bulk Loading—Form E-6621 (Back) (3.05, 3.06)

TABLE A



EQUIPMENT

TYPE OF CROSS-CONNECT	IN	OUT
Modular ESS MDF and COSMIC	3.2	2.0
MDF-IN (ADVANCED ONLY) Terminated and Tested	2.0	
TDF & Auxiliary Frames	4.0	2.8
ANI Strap	2.0	1.0
No. 5 X-Bar	6.8	3.4
No. 1 X-Bar Block Relay Frame, Line Distributing Frame	7.4	3.7
No. 1 X-Bar AMA	8.4	4.2
Panel (IDF) Intermediate Distributing Frame	7.2	3.6
Step By Step (IDF) Intermediate Distributing Frame	7.2	3.6
Denials From Repair Center		2.0
Restorals From Repair Center	2.0	
College: Rate Treatment	2.6	2.6
College: Coil Removal and Replacement	.8	.8
Intercept: Operator To Machine		1.0

TABLE B

WORK TYPES AND CODES

TYPE OF WORK	TYPE OF WORK CODE
Engineering Dept. Request	Productive Code or SE
Frame Routine	PMF
Line Equipment Transfer	ET
Safety, Other Meeting	MSM
Service Order-Equipment	SOE
Service Order-Framework	SOF
Total Service Order	TSO
Subscriber Cable Transfer	CTS
Ticket from Subscriber, PSC, Testboard	CMA
Ticket from Traffic	CMB
Ticket from Other	CMJ
Trunk Facility Order-Frame	TOF
Traffic Department Request	Productive Code or SF
Trick Duties	OHT
Formal Training	TF
Travel Time	TT
Trunk Cable Transfer	CTT
Universal System Service Order	CO
C AND X Time, WECO jobs	CH
Training, on-the-job	TJ
Changes work, permanent type	W9

TIME STUDY (TO BE REPRODUCED LOCALLY)

OFFICE _____ DATE _____ ACTIVITY _____
(IN, OUT, CHG-MDF, EQ, ETC)

A	B	C		D	E	F	
NO. OF ORDERS	NUMBER OF LINES	BELL SYSTEM TIME *1		ACTUAL TIME		ROAD BLOCK	
		PER LINE	TOTAL	W/RB *2	WO/RB *3	TIME LOST	REASON FOR ROAD BLOCK
(G) TOTALS		X					X

(H) PERCENT EFFICIENCY W/RB = $\frac{\text{LINE G (COLUMN C)}}{\text{LINE G (COLUMN D)}}$ X 100 = _____

(I) PERCENT EFFICIENCY WO/RB = $\frac{\text{LINE G (COLUMN C)}}{\text{LINE G (COLUMN E)}}$ X 100 = _____

(J) EFFICIENCY OBJECTIVE = _____

(K) OBJECTIVE TIME PER ITEM = $\frac{\text{COLUMN C (PER LINE)}}{\text{LINE J}}$ X 100 = _____

*1 TIME IN MINUTES FROM TABLE A IN SECTION 201-200-010
*2 W/RB = WITH ROADBLOCKS
*3 WO/RB = WITHOUT ROADBLOCKS

TIME STUDY SUMMARY (TO BE REPRODUCED LOCALLY)

OFFICE_____ DATE_____

A	B	C	D	E	F	
LINE	TYPE OF ACTIVITY	NUMBER OF LINE ACTIVITIES	BELL SYSTEM TOTAL TABLE A TIME	LOCAL FRAME TIME		REMARKS
				PER ITEM	TOTAL	
1	INWARD MDF EQ. TOTAL					
2	OUTWARD MDF EQ. TOTAL					
3	CHANGES # MDF					
4	SPECIAL SERVICE IN OUT					
5	MISCELLANEOUS					
6	TRUNK ORDER IN OUT					
7	CABLE TRANSFER IN OUT					
8	TRAFFIC TRANSFERS					
9	LINE & STATION TRANS.					
10	DENIALS					
11	RESTORALS					
12	INTERCEPT OPR. TO MACHINE					
13						
14	TOTAL			X		

15 OVERALL PERCENT EFFICIENCY = LINE 14 (COL. D) X 100 ÷ LINE 14 (COL. F.)

PRICING CHART (TIME IN MINUTES)

TO BE REPRODUCED LOCALLY

OFFICE _____ DATE _____

EQUIPMENT-	NUMBER OF VERTICALS-																	
NUMBER OF LINES TO BE WORKED ON	1	2	3	4	5	6	7	8	9	10	20	30	40	50	60	70	80	90
IN MDF																		
IN EQ																		
IN TOTAL																		
OUT MDF																		
OUT EQ																		
OUT TOTAL																		
CHANGE EQ IN																		
CHANGE MDF																		
MISCELLANEOUS																		
SPECIAL SERVICE IN MDF																		
SPECIAL SERVICE IN EQ																		
SPECIAL SERVICE IN TOTAL																		
SPECIAL SERVICE OUT MDF																		
SPECIAL SERVICE OUT EQ																		
SPECIAL SERVICE OUT TOTAL																		
CABLE TRANSFERS IN																		
CABLE TRANSFERS OUT																		
CABLE TRANSFERS TOTAL																		
DENIALS																		
RESTORALS																		
INTERCEPT OPR TO MACH.																		