FRAME FORCE MANAGEMENT

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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. 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 The intent of the Plan is to provide the frame manager with knowledge of future demand work load today. With this knowledge, the manager will be able to (1) meet subscriber demands, (2) program Company-generated work, and (3) assure that all employees are productively assigned. Therefore, the procedures outlined in

this section address frame management and deal primarily with determination of (1) total nonorder hours necessary for effective frame operation, (2) frame force hours available for order work, (3) order load hours, (4) proper force sizing for the load, and (5) obstructions to smooth work order flow.

1.03 To avoid possible misunderstanding, the following definitions of terms are provided:

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	Jumpers run but not connected on both ends.
Supervisor	First level management.

A. Production Improvement

1.04 Improvement of frame production is ***not*** a speedup of the individual (assuming the force is working at a steady reasonable 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.

1.05 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. Improving the former will allow more time for improving the latter. 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's work and that everything possible is being done to eliminate those items which prevent craft from efficiently doing the frame job. These instructions are designed to help the supervisor accomplish these objectives.

B. Job Assignments

1.06 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.

1.07 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.

1.08 Work should be assigned that is functionally loaded. For example, an individual is assigned to the vertical side of the main frame. His/her 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. The Work Assignment List (form E-5848) should be posted and used for describing job responsibilities.

1.09 It is necessary for the supervisor to tell each person of his/her workload assignment for a particular week, or whatever period of time that is used in the office. Form E-5465 (or equivalent) is used for this purpose. This form should be posted in a prominent place.

1.10 It is important for supervisors to consider the length of time that individuals are assigned to workload assignments. The period of time should not be so short that a person does not have

a chance to learn the job well. A longer period of time allows the individual to develop fully in a particular work assignment. The supervisor must try to reach the best arrangement for his/her office.

1.11 The supervisor must be alert to the effect of absences which result in a workload assignment being unoccupied. He/she must make the necessary temporary adjustments in workload assignments 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 a supervisor may be out of the office.

1.12 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 insuring adequate coverage.

C. Work Scheduling

1.13 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.

1.14 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 commitmets. 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

1.15 Service order record errors are costly and can be reduced by scheduling routine work assignments to purify records. Time spent 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 to keep the frame assignments accurately controlled.

2. PLAN IMPLEMENTATION

A. Expected Time for Frame Tasks

2.01 An average time expectancy for all frame cross-connection tasks is provided by Table A. These are typical time intervals to complete work operations on an average Bell System frame. ***Expected time*** is the basis for the measurement of the average effort required to accomplish a job on a particular type of cross-connect frame. Since each frame task consumes an interval of time and a number of tasks constitute a complete work operation, the combined task time intervals required for a single frame work operation becomes the expected time for that work operation.

2.02 The average service order consists of two basic work operations; (1) the jumper on the MDF and (2) the cross-connections for the telephone number, billing and line equipment. For the purposes of this plan, the time required to run these latter cross-connections are lumped together and called ***equipment*** times. Table A is in two parts, (1) MDF times and (2) Equipment times. The MDF time for a particular frame can be plotted on the graph in terms of the number of verticals. The equipment times are the same for all frames.

2.03 Note that the dotted line on MDF times is titled MDF-LIFT AND TIE DOWN. This time represents the preliminary work on an order that had not been connected on the HMDF. (A change order is a typical example.) In forecasting estimated time for the preliminary wiring in such a situation, the IN time of 2 minutes must be deducted from the estimated time for a fully connected jumper. The MDF-LIFT AND TIE DOWN 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 and the subsequent lift and tie operation time will not be estimated.

2.04 As mentioned, the equipment portion of Table A represents all the required cross-connections under one time. This is for simplicity. Cases may arise where local management

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 should equal the total as listed in Table A.

2.05 It must be understood that the work times in Table A represent 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 do, however, provide a ***constant*** figure from which percent efficiency can be determined.

2.06 The frame supervisor must determine how long each work order operation takes on his/her frame. This may take some period of time for study but it must be done. Once it is accomplished, and the results are agreed to by second level management, it is then reasonable to compare local work times with Table A times.

2.07 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 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.

B. Pricing of Work

Order Demands

2.08 The measurement of frame work proceeds through two stages:

(a) ***Demand orders*** (customer initiated orders)

(1) In & T Orders

(2) Out & F Orders

(3) Change Orders

(4) Special Service Orders

(5) Misc. Demand Work Orders, such as:

(a) Change cable pair—transfers associated with regular orders

(b) Temporary suspensions and denials

(c) Restores

(d) Intercept changes (Opr. to machine).

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

(1) Cable transfers and installation line sheets

(2) Line and equipment transfers

(3) Trunk order work.

2.09 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

2.10 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 consumed by the frame force for these activities.

2.11 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 his or her boss.

C. Controlling the Workload

2.12 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 preliminary work, or at the same time they are actually due, the frame supervisor should document the evidence and 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 mamagement should be sought if it is impossible to solve this problem at first level.

2.13 Zero due date orders can be a problem and the number of them is usually a matter of local policy. If the quantity of these orders get out of hand and become 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.

2.14 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 proper people.

Order Bin Arrangement

2.15 To assist in the ease of order handling and pricing, Fig. 1 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. The priority labeling is down the side of the bin: priority one is for those orders due tomorrow, one day out; priority two is for those due two days out, and so forth. Priority F, or future, is for those orders due more than 4 days out. 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.

2.16 Incoming work orders should be time and date stamped, reviewed for completeness and legibility and sorted by due date. Zero due date orders should be logged and worked as appropriate.

Daily Forecast

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

(1) Identification of ***Nonorder Hours*** necessary to the frame operation. An agreed to objective is established and monitored. A method for establishing this objective is to average the 15 lowest percent nonorder hour days from the previous three months.

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

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

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

(5) An expected ***percent efficiency*** for tomorrow. An agreed to objective is also established in this area. A method for establishing this objective is to average the 15 highest day percent efficiency from the previous three months.

2.18 The daily forecast of efficiency shall be made by the supervisor using form E-6619 (Fig. 2). 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 (4 PM to 4 PM—8 AM to 8 AM). 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.

2.19 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 order or (2) each of the two work operations can be computed separately. The following example is illustrated in Table C. An office has two kinds of switching machines, No. 5 Crossbar and Step-by-Step. The MDF is 170 verticals long, meaning it will take about 5.7 minutes to place and connect a jumper and 3.2 minutes to remove one. One hundred service orders are received for tomorrow's load. Twenty are change orders (10 number changes and 10 class-of-service changes), 40 are inwards, and 40 are disconnects. 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 Step-by-Step and 6.8 minutes in, 3.4 minutes out for No. 5 Crossbar. For the purposes of this example half the orders are No. 5 Crossbar and half are Step-by-Step. This load is computed using the following procedure:

The Step-by-Step load breaks down this way. Three hours and 36 minutes for equipment IN. One hour, 48 minutes for equipment OUT. Two hours, 23 minutes MDF in and one hour, 20 minutes MDF out.

The Crossbar load breaks down in a similar manner, 3 hours, 24 minutes equipment IN, one hour, 42 minutes equipment OUT, 2 hours, 23 minutes MDF in and one hour, 20 minutes MDF out.

The total day's load using Table A times equals 9 hours, 7 minutes for Step-by-Step and 8 hours, 49 minutes for Crossbar.

The load can also be broken down by order type. In this example the times required by order type are:

SXS CHG/CS	1 hr., 39 min.
SXS CHG/#CHG	54 min.
SXS In	4 hr., 18 min.
SXS Out	2 hr., 16 min.
XB CHG/CS	1 hr., 36 min.
XB CHG/#CHG	51 min.
XB In	4 hr., 10 min.
XB Out	2 hr., 12 min.

Considering both switching machines the total demand work order load equals 17 hours, 56 minutes. This is how long the demand work load would take if the frame force is working at 100 percent efficiency as compared to Table A. If the supervisor of this example office had determined he or she could effectively operate at 70 percent efficiency, the required force hours for the demand work order load would be 26. (Table A times ÷ expected % efficiency - in this example 18 hours ÷ .7 = 26).

2.20 The Daily Forecast form E-6619 is divided into three parts, nonorder hours, order work load hours, and force and load computations. Through the use of these components effective force deployment will result.

2.21 The Loading Sheet form E-6620 (Fig. 3) is used by the supervisor to make initial work assignments in order to properly load each available person.

D. Loading of Work Assignments

2.22 The Daily Time and Work Log form E-6621 (Fig. 4 and 5) is used for individual loading.

The sorting of orders into stacks of In, Out, and Changes as described in 2.19 will assist in the loading procedure.

2.23 It is recommended that orders 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.

2.24 Required ongoing miscellaneous work and its associated times should be recorded on the Work Inventory Record form E-5847 (Fig. 8). This information is to be used for TRICK assignments.

2.25 ***OHT***—Work designated on form E-5848, Work Assignment List, is for that particular trick assignment. Fig. 9 illustrates a typical frame work assignment. The work listed on form E-5848 is performed by the assigned frameperson throughout the shift.

2.26 ***Scheduled Assignment***—Work that must be started by the frame employee at the time specified in the start time column.

2.27 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 computed from chart A.

> ***Note 1:*** When loading SOE type work that is for only a partial completion (ie, completing only number group and not the translator in No. 5 crossbar), do not count in the measurement plan. Also when the frameperson does not complete the entire SOE type work, do not count in measurement plan.
>
> ***Note 2:*** In the ITEM IDENT space, enter the number of items, cut numbers etc. (Fig. 7A, Lines 2, 3, and 4).

2.28 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.

E. Recording Work Completed

Daily Time and Work Log—Form E-6621

2.29 Each frameperson receives an 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

2.30 All productive work completed each day must be logged on this form (Fig. 10). This form is also used as a Go Ahead log. The data on this form is used to develop the Daily Actual Percent Efficiency, record the self_count items for work unit count on form E-4420. It is also used to prepare a daily expected work unit credit if on the Frame Control Center concept.

Other Work Log—Form E-6623

2.31 This log (Fig. 11) 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.

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

2.32 This form (Fig. 12) is a summary of each daily control log. This form is used to compile the monthly result figures.

Speaker Activity Log—Form E-6625

2.33 This special form (Fig. 15) has been developed to record all speaker activity work items. It is self-explanatory and should be used under this Plan. The use of this form is optional.

3. FRAME CONTROL RECORD

3.01 The Frame Control Record, form E-5497 (Fig. 13), is self-explanatory. It provides the frame supervisor with a stroke record and trends the type of problems that are causing five codes.

4. FRAME CONTROL CENTER (PROVISIONAL)

4.01 The following paragraphs explain the operation and benefits of a Frame Control Center

(FCC). All parts of the FCC plan are optional and will allow any part or all of the package to be selected by local supervision for the most efficient operation in their particular area. An AT&T FCC model is under development. Subsequent issues of this practice will reflect more concrete guidelines.

4.02 The objectives of a Frame Control Center can be many. From this point the force level for several frames can be quickly adjusted to meet load demands. The frame's responsibility to construction schedules can be more readily coordinated. Roadblocks such as zero due dates, discrepancies, frame errors, etc, become more visible and thus, better managed. Self-counted work units should be tallied at the FCC. These are a few examples of the FCC potential as an effective management tool.

4.03 Production improvement starts with the local frame supervisor. After the frame supervisor completes the Daily Forecast Form E6619, it is forwarded to the Frame Control Center after 5:00 PM or prior to 8:30 AM (depending on local forecasting techniques). The percent efficiency is determined and reviewed as follows:

(a) The FCC or frame supervisor determines the daily efficiency index. (FCC phone conversation.)

(b) The frame supervisor determines if percent efficiency is satisfactory. (Adds or subtracts productivity items.)

(c) Second and third level management is notified of efficiency percent.

(d) Second level supervisor reviews percent efficiency and determines if it is satisfactory, discusses any difference of opinion with local supervisor, and negotiates any changes. New efficiency percent negotiated and given to the local supervisor, FCC, and district manager for review.

A. Frame Productivity Control

4.04 The control of frame productivity depends upon the following.

(a) The FCC must be given a record of all completed service order work.

(b) The FCC must be given a record of all other type work that was accomplished.

(c) The FCC must be given an accurate account of all order and nonorder hours spent on the frame. This includes borrowed hours from other forces.

(d) The FCC must be given the number of zero dues, discrepancies, after-five orders, and frame five codes.

(e) The FCC will determine the actual percent efficiency, percent discrepancies, percent zero due, and percent of after-five daily, then publish expected efficiency, the actual percentages, and the daily frame five codes to appropriate management levels.

(f) All levels of supervision should become involved in areas where expected percent efficiency and actual efficiency have a questionable difference. If discrepancies, zero due dates, after-five orders, or any other item is significant in hindering production, a way to solve the problem should be determined.

B. Counting of Work Units

4.05 It is not intended that this section be used for determining a work unit per hour for any given frame. It is intended that the self count work units for ***all*** frames within at least a district be tallied. Work units per hour for individual frame operation are ***not*** statistically meaningful and should not be calculated in such a manner.

4.06 Work units should be accounted for as follows.

(a) The FCC must receive daily a record of all work completed, such as:

(1) Service Orders

(2) Trunk Orders

(3) Cut Sheets

(4) Line Sheets

(5) Transfer Sheets

(6) Special and Miscellaneous Orders.

These will be stroked by type and the work units calculated.

(b) The FCC will be responsible for the monthly E-4419.

(c) The FCC will be responsible for the monthly E-4420.

(d) The FCC will be responsible for a district wide summary of all measureable items to be published to appropriate levels of supervision.

C. Daily Forecast—Form E-6619

4.07 The forecast should include all service order work that is scheduled for the 24-hour period plus all contracted ***other work.*** The frame supervisor should include a daily factor for ***zero dues*** and ***after-five*** orders that historical data proves will be demanded. The work accomplished by other shifts should also be forecasted. After all demand work has been forecasted, the frame supervisor should load all shifts with ***other work*** to reach the percent efficiency necessary to keep all available employees working at a satisfactory performance. These figures will be forwarded to the FCC.

4.08 The FCC will notify the second level managers of the forecast. The second level managers decide if forecast is satisfactory. If satisfactory, the forecast may be forwarded to third level. If not satisfactory, the second level negotiates with local supervision and a final forecast figure is decided. This negotiation can be the result of several different factors. A frame in the district may be short of employees and it may be decided to postpone other work or loan an employee from one office to another. The percent of efficiency in one office may not be satisfactory so more other work may be requested by the local management or some employees may be assigned different duties.

4.09 ***Actual***—Using the E-6622 actuals, the FCC will tally all service order and other work accomplished during the day. It will obtain all actual productive time and determine the actual percent efficiency.

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

4.10 The FCC will issue this report to all levels of supervision required. Preparation is described in Part 5 of this section.

E. Work Unit Control

4.11 An accurate account of all work units is necessary. To achieve this a daily count of all work units must be made by the FCC.

(a) A daily E-4420 will be prepared by the FCC using the figures from the Daily Central Office Frame Activity Log.

(b) A daily E-4419 form will be prepared by the FCC.

(c) The FCC will prepare a daily work unit count form per office. Form E-6626 (Fig. 14).

(d) The local supervisor will forward a copy of the other work log to the FCC on a weekly basis. This will aid the FCC in making sure that all credit for completed orders will be taken. Form E-6623 (Fig. 11).

5. FORMS

5.01 This part provides additional information for using the forms covered in this section. Order these forms through Western Electric Regional in the quantities indicated as follows.

Order through Western Electric Regional Office by quantity in multiples of 50.

Form	Number of Forms per Pad	Number of Pads per Package	Order in Multiples of
E6619	50	2	100
E6620	50	2	100
E6622	50	2	100
E6623	25	2	50
E6624	25	2	50
E6625	25	2	50

	Number of Forms per Package	
E6621	100	100

A. Form E-6619 Daily Forecast

5.02 Non Order Hours—Lines 1 thru 7—The supervisor shall record on the appropriate lines all time spent on various non order activities necessary to effective frame operations.

Line 8—Add lines 1 through 7 to determine total non order 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 supervisions pricing option choice (see 2.19). Option (1) If pricing the work order load by type of work operation write in the type frame and type equipment; i.e., MDF, No. 5 XB, IDF, BR/LDF, etc. Option (2) If pricing by work order type write in the different kinds; i.e., New Connects, Charges, Disconnects, etc. If using this technique, ignore the IN and OUT sides of the columns, lines 6 through 21 and 25 through 30. In lines 22 and 31 enter the combined sum of MDF and Equipment Table A times appropriate to the type order listed at the top of the column. Multiply lines 22 and 31 by the number of work orders in each column to complete lines 24 and 33, respectively.

Lines 16 through 20—These lines are to be used in option (1) pricing. List the number of work operations on the MDF and appropriate equipment types for each kind of work order.

Line 21—Total lines 16 through 20.

Line 22—Enter the appropriate Table A times.

Line 23—Multiply line 21 by line 22 to determine total expected work order time by MDF and Equipment.

Line 24—Add the totals of line 23, columns B 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 24 to determine time requirements for nondemand order work.

Line 34—Add lines 24 and 33 to determine the combined total demand and nondemand work order hours required.

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 hours required for the determined load. Divide the work order load hours, line 11, by the objective percent efficiency previously determined by the supervisor and second level, (line 15, OBJ box).

Line 13—Enter the plus or minus difference between line 10 and line 12. If extra hours result then ***additional work must be programmed for them.*** If insufficient hours to calculate the work order load result, ***additional hours must be obtained.***

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

Line 15—The expected percent efficiency is developed by dividing the total work order load hours, line 11, by the hours the supervisor will use to work the load, line 12.

Lines 35 Through 37 Are For FCC Use

Line 35—Total load hours, obtained from line 35, Section D, E-6622. Total productive hours, obtained from line 35, Section E, E-6622. Percent efficiency, obtained from line 35, Section F, E-6622.

Line 36—Five codes through yesterday, obtained from E-5497. Total nonorder hours, obtained from frame supervision.

Line 37—Obtain from frame supervision.

B. Form E-6620 Loading Sheet

5.03 The Loading Sheet (Fig. 3) 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 loaded. Column D is for number of jumpers or orders run as stroked by the employee and multiplied by the Table A times. Columns E and F are for 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

5.04 Fig. 4 and 5 illustrate the front and back of form E-6621. The following description is keyed to the letters in parenthesis on Fig. 6A and 6B. 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 AM, 1600 for 4 PM).

(h) DATE—Date frameperson performed work.

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

(j) At the supervisors option, these three areas are to be used by the employee for stroking actual jumpers run or total orders, by type, worked, depending on which pricing scheme is employed.

(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 found trouble 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, 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 expected times in Table A.

(v) RC WC and HOURS—These items show the summary in hours of specific reporting and work codes. In Fig. 7A, 47M/S0 5 hours is the summary of lines 7,10, and 11. A list and description of work are on the back of the form.

(w) Use these lines as needed.

(x) REMARKS—Explain all exceptions and overtime.

5.05 Fig. 7A and 7B illustrates 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 his/her assigned work in the order that it is listed on form E-6621, and within the responsibilities of his/her Work Assignment List, form E-5848 (Fig. 9). The frameperson enters on the first line after the preloaded items, in the ITEM IDENT column, his/her 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 the reason (dispatched) and the remaining time information per lines 5 and 9.

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 codes are entered for appropriate items. (Line 5)

Remarks are entered to clarify specific tasks. (Lines 2, 5, 9, 10, 11, and 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 _____". (See Fig. 7A, line 10).

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

5.06 When there is a need for a more detailed stroke tally of work performed, the frameperson is to tally the number of jumpers placed or removed or orders worked in the upper portion of the form. The blank headings are to be filled out for the equipment cross-connects in your office, No. 5 Crossbar, Step-by-Step, IDF, TDF, etc. See Fig. 7A for example of total jumpers by MDF and equipment type.

5.07 Fig. 7A and 7B also illustrates 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

5.08 The following explanation is provided for the preparation of form E-6622 (Fig. 10).

ORDER NO—This column will contain numbers for service orders, SSO, trunk orders, cable transfers, installation cut sheets, network administration line and equipment transfers, change tickets, etc. Orders from Other Work Log (form E-6622), service orders, special service orders or any other orders that are bulk advanced should be bulk recorded on lines 25 through 30. This work may be recorded individually on lines 1 through 24 on a separate sheet if required by the office.

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

TEL NO or ITEMS (Lines 1 through 24) ORDERS (Lines 25 through 30)—Record the telephone number of each simple order. Record the billing number (pilot) of each complex order and number of additional lines. Record the number of items associated with each trunk order, LET, cut sheet, etc. This column is used to develop data for percent zero due date or after-five orders and to record the lines of work on transfer orders. The number of orders should be recorded in this column for bulk advanced or cut work done by the evening or night shift.

ORDER TYPE—This column will shown the type of order.

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

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

Column C—Check if received after five. Any order received after 5 PM and before commercial office opens and due the next day. Record the number of such orders received that were advanced or cut on lines 25 through 30.

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

Columns E & 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.

Columns J through U—Again, depending on which pricing scheme is employed, record either the MDF and equipment jumpers worked or the service orders by type that were worked.

Note: Columns D through I are also used to determine frame cut times on go ahead type orders. Columns V through Z may be used for self tally of work units if appropriate.

Column V—Stroke line and station transfers for transfer to E-4420.

Column W—Miscellaneous orders and equipment for E-4420 credit.

Column X—Stroke intercept changes operator to machine for E-4420 credit.

Column Y—Stroke number of denials and restorals in proper column for Form E-4420. Only Company-initiated requests are to be counted. NO strokes taken on denials or restorals on service orders.

Column Z—Form E-4420 stroke bridge lifters subscriber carrier, loop extenders, dial long line circuits and E-type repeaters on regular service orders.

Bulk Work—If on the total order pricing concept, lines 25 through 30, may be ignored. Instead, enter the words "bulk advanced" on any line, 1 through 24, and record the number of orders worked under the appropriate order type column. The number of discrepancies encountered and after 5's should be entered in the appropriate column.

Line 25—Count item numbers, MDF, TDF and aux frame jumpers, type or equipment and E-4420 credit for all orders bulk stroked from Other Work Log.

Line 26—Count order numbers, MDF jumpers, type of equipment, and E-4420 credit on all IN and T service orders bulk advanced.

Line 27—Count order numbers, MDF jumpers, type of equipment, and E-4420 credit on all OUT and F orders bulk advanced.

Line 28—Count order numbers, MDF and aux frame jumpers, and E-4420 credit on all change orders bulk advanced.

Line 29—Count order numbers, MDF and aux frame jumpers, type of equipment, and E-4420 credit on all special service orders bulk advanced.

Line 30—Count order numbers, MDF and aux frame jumpers, type of equipment and E-4420 credit on all miscellaneous orders bulk advanced.

Line 31—Total all columns A through C and J through Z. If on FCC concept, line 31 can be called to FCC or mailed in. Lines 32 through 35 will be completed by FCC.

Line 32—From Table A put in times in Columns J through Y.

Line 33—Columns J through Y, multiply line 31 by line 32.

Line 34, Section A—Enter percent discrepancies (multiply column 31A by 100 and divide by line 31J). This information provides supervision with roadblock data.

Line 34, Section B—Enter percent zero due (multiply column 31B by 100 and divide by total line 31 telephone numbers). This information provides supervision with trend data for forecasting purposes.

Line 34, Section C—Enter percent after 5 (multiply column 31C by 100 and divide

by total line 31 telephone numbers). This information provides supervision with trend data for forecasting purposes.

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

Line 35, Section E—Total all productive hours, including those borrowed (if any). (***Note:*** The frame forces must maintain daily time cards reflecting productive and nonproductive work operations.

Line 35, Section F—Actual percent of efficiency. Divide Section D by Section E. This actual percent efficiency should be checked against forecasted percent efficiency.

E. Form E-6623 Other Work Log

5.09 The Other Work Log 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.

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

5.10 The following information is provided for use in the preparation of Form E-6624 (Fig. 12).

Columns A through E—Taken directly from the Daily Central Office Frame Activity Log (Form E-6622). If on FCC operation could be phoned in or mailed in.

Column F—Taken from Daily Central Office Frame Activity Log or, if on FCC operation, will be taken from FCC portion of Form E-6619.

Column G—Taken from Daily Time Cards or if on FCC operation, taken from FCC portion of Form E-6619.

Column H—Taken from Daily Central Office Frame Activity Log (Form E-6622) of if on FCC operation, taken from FCC portion of Form E-6619. For monthly portion, follow instructions on form.

Column I—Column G divided by sum of Columns F and G.

Monthly % Descrepancies—Total B divided by Total A.

Monthly % Zero Due—Total C divided by Total A.

Monthly % After-Five Hours—Total D divided by Total A.

Monthly Frame Five Codes Per 100 Productive Hours—Total codes from Form E-5497 divided by the product of Column F divided by 100. If one-supervisor office, Form E-5497 is optional. Use the Frame Five Codes on Daily Control Log for the equipment.

Monthly % Total Efficiency—Total Column E divided by Column F and multiplied by 100.

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

G. Form E-6625 Speaker Activity Log

5.11 The use of this form is optional. Its intent is to record certain activities requested from the Repair Service Bureaus.

H. E-5848—Work Inventory Record

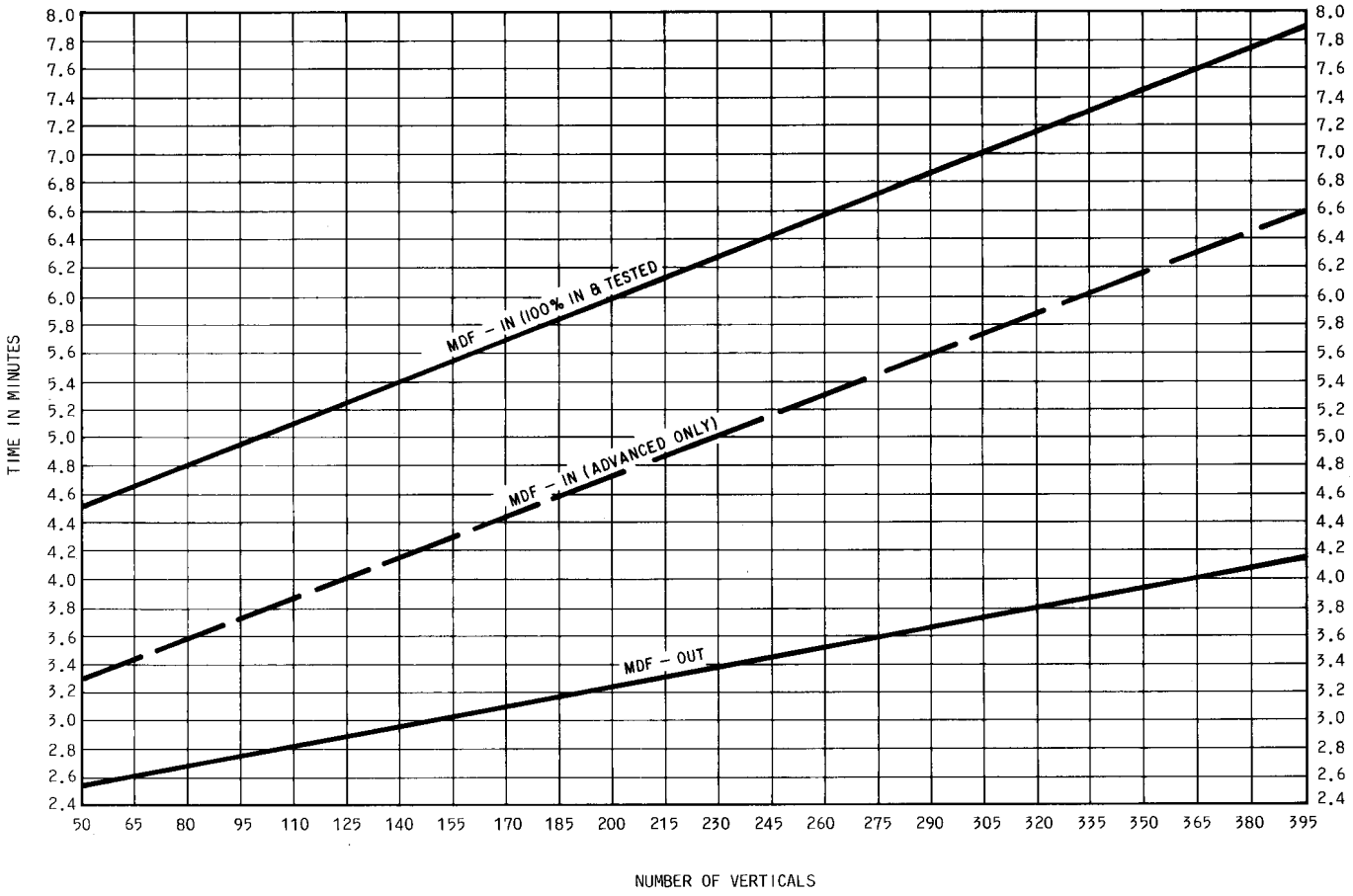
5.12 This form is used to describe each work load content developed.

I. E-5847—Work Assignment List

5.13 This form is used to record work that is usually programmable. Generally the work is of a routine, ETL nature.

TABLE A

C.O. FRAMES EXPECTED TIMES IN AVERAGE MINUTES



TYPE OF CROSS-CONNECT	IN	OUT
Modular ESS MDF	3.2	2.0
MDF — Lift and Tie Down	2.0	1.7
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

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

TABLE C

SXS	EQ IN	EQ OUT	MDF IN	MDF OUT
5 CHG, CS	7.2 X 5 = 36.0	3.6 X 5 = 18.0	5.7 X 5 = 28.5	3.2 X 5 = 16.0
5 CHG, #CHG	7.2 X 5 = 36.0	3.6 X 5 = 18.0	—	—
20 In's	7.2 X 20 = 144.0	—	5.7 X 20 = 114.0	—
20 Out	—	3.6 X 20 = 72.0	—	3.2 X 20 = 64.0
XB				
5 CHG, CS	6.8 X 5 = 34.0	3.4 X 5 = 17.0	5.7 X 5 = 28.5	3.2 X 5 = 16.0
5 CHG, #CHG	6.8 X 5 = 34.0	3.4 X 5 = 17.0	—	—
20 In	6.8 X 20 = 136.0	—	5.7 X 20 = 114.0	—
20 Out	—	3.4 X 20 = 68.0	—	3.2 X 20 = 64.0

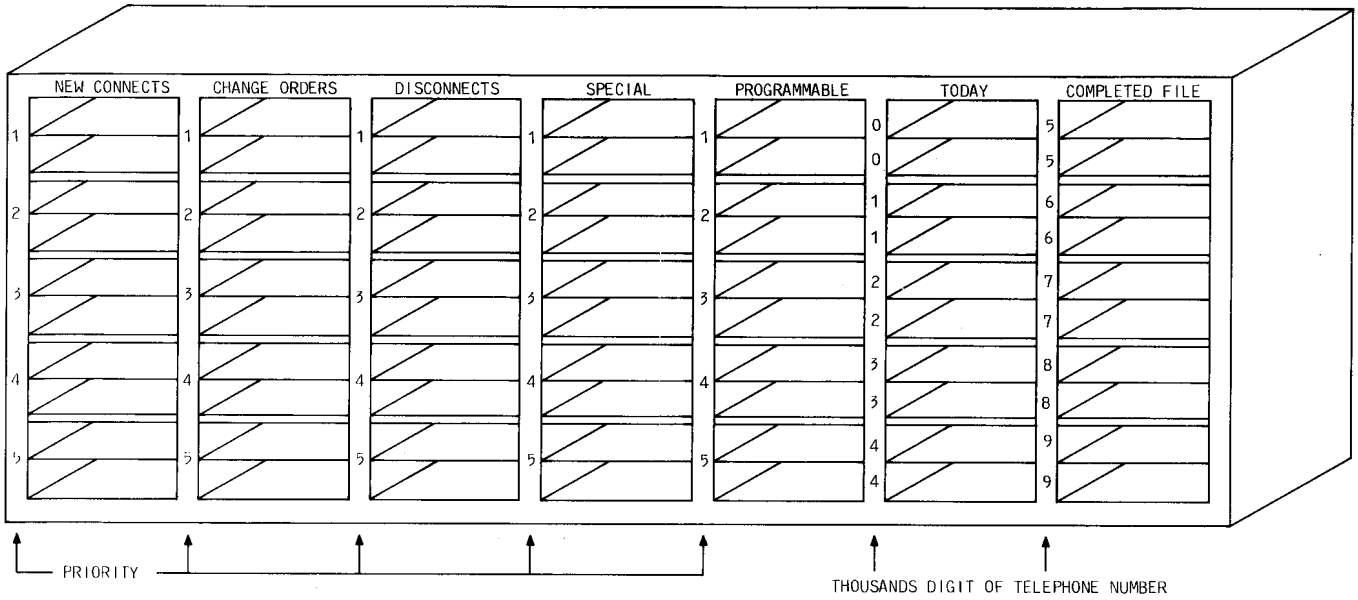


Fig. 1—Service Order Filing Bins for Large Operations

DAILY FORECAST

E6619

OFFICE

DATE

NON ORDER HOURS		FORCE AND LOAD			
1. DESK & SPEAKER		9. TOT SCHED FORCE X 8			
2. EQUIPMENT VERIFICATION		10. TOT AVAIL HOURS L 9 - L 8			
3. HOUSEKEEPING		11. TOT ORD LOAD HRS L 34			
4.		12. HRS REQ'D L 11 ÷ OBJ % EFF.			
5. MEETINGS		13. DIFF ± L10 AND L12			
6.				EXP	OBJ
7.		14. % NON ORD HRS L8 ÷ L9			
8. TOTAL ADD L1 THRU L7		15. % EFFICIENCY L11 ÷ L12			

COL A	B	C	D	E	F	G	H	I	J	K	
DEMAND WORK	MDF										
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
16. IN & T											
17. OUT & F											
18. CHANGE											
19. SPECIAL SERVICE											
20. MISC											
21. TOT L16 THRU L20											
22. TABLE A TIME											
23. TIME EXP L21 X L22											
24. TOTAL 23 B THROUGH K ÷ 60 = DEMAND WORK EXPECTED HOURS											
NON DEMAND WORK	MDF										
25. TRUNK ORDER											
26. CABLE TRANSFER											
27. L.E.T.											
28. CUT SHEETS											
29.											
30. TOTAL L25 THRU 29											
31. TABLE A TIME											
32. TIME EXP L30 X L31											
33. TOTAL 32 B THROUGH K ÷ 60 = NON DEMAND WORK EXPECTED HOURS											
34. TOTAL EXPECTED ORDER LOAD HOURS L24 + L33											

REMARKS

FCC USE		ACTUALS			
35. TOTAL LOAD HOURS		TOTAL ORDER HOURS		PERCENT EFFICIENCY	
36. 5 CODES THROUGH YESTERDAY		TOTAL NON ORDER HOURS			
37. EMPLOYEES ASSIGNED		EMPLOYEES PRESENT		DIFFERENCE	

Fig. 2—E-6619 Daily Forecast

LOADING SHEET

E-6620

OFFICE DATE

A	B	C	D	E	F	
NAME	ASSIGNMENT	HOURS LOADED	ORDERS JUMPERS TABLE A	ORDER TIME	NON-ORDER TIME	
					(M)	(R)

Fig. 3—E-6620 Loading Sheet

DAILY TIME AND WORK LOG

E-6621

EMPLOYEE	SUPERVISOR	REG	EXT	PRE
TRICK	CLOCK HOURS WORKED	DATE	APPL	

MDF						EXCEPTIONS	
						CODE	HOUR
IN	OUT	IN	OUT	IN	OUT		

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
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

RC WC								
HOURS								

Fig. 4—E-6621 Daily Time and Work Log (Front)

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

REMARKS _____

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.

Fig. 5—E-6621 Daily Time and Work Log (Back)

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)	
						CODE	HOUR
IN	OUT	IN	OUT	IN	OUT		

EMPLOYEE DATE PG. OF

TYPE WORK (l)	ITEM IDENT (m)	START TIME (n)	END TIME (o)	TOT TIME (p)	DISP CODE (q)	REPT CODE (r)	WORK CODE (s)	EST-RO-PARCEL REMARKS (t)	EST TIME (u)
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
RC WC	(v)								
HOURS	(v)								

Fig. 6A—E-6621 Sample With Reference Callouts (Front)

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.

Fig. 6B—E-6621 Sample With Reference Callouts (Back)

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
E-1	0800 to 1900	11-8-75	

MDF		#5 XB Equip.		TOF		EXCEPTIONS	
IN	OUT	IN	OUT	IN	OUT	CODE	HOUR
𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 IIII	𝍸 𝍸 I	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸	𝍸 𝍸 II				

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
OHT		1630							30
CTT	1236 11items	0900						Est 23456	106
SOE	27 items								95
SOF	42 items	Deviation	on 2 items -			referred to test center			249
CMA	TT-9	0800	0900	1	F	47R	SA-SF	Dispatched	
6	2	0900	0930	1/2		5M	CT		
7	3	0930	1045	1 1/4		47M	SO		
8	2	1045	1130	3/4		5M	CT		
9	3 items	1130	1200	1/2		47M	SO	Dispatched	
10	4	1300	1500	2		47M	SO	Assisted by B. Brown	
11	4	1515	1630	1 1/4		47M	SO	Assisted by B. Brown	
12	1	1630	1700	1/2		47M	OH	cleaned area	

RC WC	47R/SA-SF	5M/CT	47M/SO	47M/OH				
HOURS	1	3 1/4	5	1/2				

Fig. 7A—E-6621 Sample Entries for Bulk Loading (Front)

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 _____

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.

Fig. 7B—E-6621 Sample Entries for Bulk Loading (Back)

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. 8—E-5847 Work Inventory Record

FORM E-5848
(5-70)

WORK ASSIGNMENT LIST

TRICK OR JOB ASSIGNMENT____________________

WORK ITEMS

PRINTED IN U.S.A.

Fig. 9—E-5848 Work Assignment List

DAILY CENTRAL OFFICE FRAME ACTIVITY LOG

E-6622

DATE

OFFICE

SHEET OF SHEETS

	ORDER NO.	CABLE PAIR EQPT	TEL NO. OR ITEMS LINE 1-24 ORDERS LINE 25-30	ORDER TYPE	A DISCP.	B ZERO DUE DATE	C AFTER FIVE'S	D E REQUESTED BY	D E REQUESTED TIME	F G DISPATCHED TO	F G DISPATCHED TIME	H I COMP BY	H I COMP TIME	J K MDF IN	J K MDF OUT	L M IN	L M OUT	N O IN	N O OUT	P Q IN	P Q OUT	R S IN	R S OUT	T U IN	T U OUT	V E4420 5 LINE & STA TRS	W E4420 7 MISC ORD & EQ	X E4420 19 INTCPT OP. TO MACH.	Y E4420 20/21 DENY REST	Z E4420 22 B-LIFT SUB CXR	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
15																														15
16																														16
17																														17
18																														18
19																														19
20																														20
21																														21
22																														22
23																														23
24																														24
25	OTHER WORK LOG																													25
26	"IN AND T"																													26
27	"OUT AND F"																													27
28	CHANGE - C																													28
29	SPECIAL SERVICE																													29
30	"MISC."																													30
31	TOTALS																													31
32	TIME FROM TABLE A																													32
33	EXPECTED TIME 31 X 32																													33
34	SECTION A % DISC. = 31A X 100 ÷ 31 ORDERS		SECTION B % ZERO DUE = 31 B X 100 ÷ 31 ORDERS																			SECTION C = % AFTER 5PM = 31 C X 100 ÷ 31 ORDERS										34
35	SECTION D TOTAL EXPECTED HOURS = TOTAL ALL LINE 33 J THRU X ÷ 60		SECTION E = TOTAL PRODUCTIVE ORDER HOURS PLUS BORROWED HOURS																			SECTION F = % EFFICIENCY = SECTION D ÷ SECTION E										35

Fig. 10—E-6622 Daily Central Office Frame Activity Log

OTHER WORK LOG

E-6623

OFFICE

SHEET NO.

	ORDER NO.	RELATED ORDER NO.	CONTROL OFFICE	DATE		DESCRIPTION OF WORK NO. OF ITEMS			PROGRESS			TABLE A TIMES
				RECV'D	DUE	CONN.	DISC.	TRANS.	PRELIM.	PULL OUT	COMP.	
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												

Fig. 11—E-6623 Other Work Log

CENTRAL OFFICE MONTHLY CONTROL FORM DAILY LOG

E-6624

DAY OF MONTH	LINE 31 ORDERS	LINE 31A # DISCREP.	LINE 31B ZERO DUE	LINE 31C AFTER 5	EXPECTED HOURS	PRODUCTIVE HOURS	NON-ORDER HOURS	% EFFECTIVE	% NON-ORDER
	A	B	C	D	E	F	G	H	I
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 B ÷ TOTAL A

% ZERO DUE = TOTAL C ÷ TOTAL A

% AFTER FIVE = TOTAL D ÷ TOTAL A

FRAME FIVE CODES PER 100 PRODUCTIVE HOURS
TOTAL CODES FROM E-5497 ÷ (F ÷ 100)

% TOTAL EFFICIENCY = TOTAL COL – E ÷ F

% NON-ORDER COL G ÷ (COL F + COL G)

Fig. 12—E-6624 Central Office Monthly Control Form Daily Log

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. 13—E-5497 Frame Control Record

F. C. C. DAILY & MONTHLY W. U. PERFORMANCE E-6626

			OFFICE		OFFICE		OFFICE		OFFICE	
			E-4419	E-4420	E-4419	E-4420	E-4419	E-4420	E-4419	E-4420
COLUMN	DAY	DATE	A	B	A	B	A	B	A	B
	M									
	T									
	W									
	T									
	F									
	S&S									
WEEKLY TOTAL										
	M									
	T									
	W									
	T									
	F									
	S&S									
WEEKLY TOTAL										
	M									
	T									
	W									
	T									
	F									
	S&S									
WEEKLY TOTAL										
	M									
	T									
	W									
	T									
	F									
	S&S									
WEEKLY TOTAL										
	M									
	T									
	W									
	T									
	F									
	S&S									
WEEKLY TOTAL										
MONTHLY TOTAL										

Fig. 14—E-6626 FCC Daily and Monthly Work Unit Count

SPEAKER ACTIVITY LOG

E-6625

OFFICE

DATE

CABLE	PAIR	COILS		SHOES				TESTER	POS.	REMARKS OR	
		IN	OUT	UP	DWN					TIME OPEN	TIME CLOSED

Fig. 15—E-6625 Speaker Activity Log