Jim

SOUTHWESTERN BELL TELEPHONE COMPANY
MECHANIZED ISC PLAN

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1. DESCRIPTION

A. General

1.01 This section introduces a mechanized system that provides a means of monitoring System Service Orders throughout their entire existence.

1.02 It does not change or cancel any existing AT&T or Southwestern Bell ISC practices.

1.03 The system is a positive approach to avoid potential problems in order to meet customer service dates.

1.04 This system is designed for use with

general purpose computers, equipped with on-line capabilities and automatic calling units for distribution of output.

1.05 After receiving initial input, the computer will automatically generate schedules, jeopardies, notifications of work to be done, completion reports and performance reports.

B. Purpose and Objectives

1.06 The mechanized ISC plan establishes a means of recognizing and avoiding potential problems in order to meet customer service dates economically.

1.07 Objectives of the mechanized ISC plan are:

(a) Listing of order work to be performed at each work location this day.

(b) Establish a method to automatically recognize and notify management of jeopardy and potential jeopardy situations in order that corrective action may be initiated.

(c) Instant status reports on individual orders.

(d) Mechanized performance report.

(e) Establish list of dates in the flow of an SSO that are critical for meeting customer service date.

(f) Positive reporting of jeopardy situations and critical date completion.

(g) Procedures to notify all involved departments of a pending SSO more quickly.

C. System Concepts

1.08 While the mechanized plan does not change or cancel any AT&T or Southwestern Bell ISC practices, it does introduce some new concepts.

1.09 One of these new concepts is that of critical dates with positive reporting. Three dates are critical, Pre-Engineering (PED), Pre-Installation (PID) and Customer Due Date (CDD). The computer will automatically advise the responsible location of work to be performed each day for PED, PID, CDD and in addition, Plant Test Date (PTD). The PED, PID, AND CDD require a positive answer on the date they are due; if not answered, the computer will generate and send an automatic jeopardy before 8 AM of the following day.

1.10 The Pre-Engineering date (PED) is the date on which all information required to engineer the service, must be available.

1.11 The Pre-Installation date is the date on which everything required to provide the service, must be available.

1.12 An additional concept is "Responsible District Office" (RDO). This is that location or person, within a District, assigned the responsibility for implementation of all Private Line serving links and Special Exchange Services within that District as ordered by the System Service Order.

D. Operating Features

1.13 Terminals will be required at input and output locations. While no specific type is specified, it is anticipated, that at the outset, DATA-PHONE teletypewriters will be used primarily.

1.14 Most inputs will be entered at one point when the SSO is typed; the 3 actual dates and manual jeopardies are entered later. Inputs can be entered via punched paper tape, cut off-line, or in conversational mode.

E. Administration

1.15 Administrative control of this system will rest with the company ISC

Administrative Team. All changes, additions, or deletions of programs will be cleared through and authorized by the Administrative Team.

1.16 The Planning Department, through their designated representative, will be the operational contact with the vendor for any changes mentioned above.

1.17 Requests for changes, additions, or deletions should be transmitted by letter to the Administrative Team using the same format as used when requesting Bell System Practice changes (E-3943). The detailed information and examples shall be displayed as attachments to the E-3943 and should contain sufficient information to justify the request.

1.18 The Area ISC teams will be the responsible administrative groups in each of their areas for the proper administration and operation of the system.

1.19 The Area team will contact the designated person directly with any trouble experienced in the proper operation of the system. A copy of the trouble reported should be sent to the ISC Administrative team as soon as corrected with any down time experienced noted on the report.

2. MECHANIZATION

A. Inputs to the Computer

2.01 It is anticipated that at the outset, DATA-PHONE teletypewriters will be used for inputs and outputs. The paragraphs following are based upon this method of operation.

2.02 Inputs to the computer can be in a conversational mode or in tape mode. In conversational mode they are entered one record at a time. In the tape mode a paper tape is cut off-line and hard copy proofed before input is made. In this way up to 22 records can be prepared in advance and entered consecutively without stopping.

2.03 Following is a list of input exhibits. They indicate alternate methods of accessing the computer where appropriate.

Exhibit 1 - Initial System Service Order Input

Exhibit 2 - Update SSO Record

Exhibit 3 - Input Actual Dates

Exhibit 4 - Input Jeopardies

Exhibit 5 - Input Clear Jeopardies

2.04 To input a new system service order, prepare a System Service Order Input form as shown in Exhibit 1 on Page 16. From the form, punch a paper tape, then use the access information shown in Exhibit 1.

2.05 As many as 22 SSO's may be entered consecutively on the same tape. After the computer has received the last SSO record (and control Z entered) it will check for errors and if any are found will indicate to the sender the SSO's and items in error. After they have been corrected these SSO's should be entered in the computer again as if they were being sent for the first time.

2.06 To change or update an SSO in the computer, prepare a paper tape. Then use the access instructions in Exhibit 2. As many as 22 updates may be put on one tape. Editing by the computer is similar to the editing of original SSO input.

2.07 The paper tapes that were used to input both new SSO's and updated SSO's should be kept for at least two working days following input.

2.08 Information on SSO's and supplements should be entered into the computer the same day on which they are received.

2.09 Actual Pre-Engineering, actual Pre-Installation, and actual Customer Due Dates shall be entered in accordance with instructions in Exhibit 3. These dates are entered by means of three separate programs, "ACTPED", ACTPID", and "ACTCDD". Editing will be performed by the computer and messages indicating the errors will be immediately sent back to the input terminal.

2.10 To change an actual PED, PID date use the original program and input the correct information in the same manner as the original "actuals" were entered. To delete an actual PED, PID date use the original program and enter zeros as the date. Actual CDD changes will have to be reported to the designated person for handling.

2.11 Enter manual jeopardies by means of the "JEOP" program as shown in Exhibit 4. Jeopardies cannot be altered but can be removed by means of the "CLJEOP" program.

2.12 Clear jeopardies by means of the "CLJEOP" program as shown in Exhibit 5. However, if the function (PED, PID, CDD) has not been answered a jeopardy will return until the function is answered with an "ACTUAL". Manual jeopardy is the only jeopardy that will stay cleared with this program and only until the next manual jeopardy is subsequently entered. When an order is updated to change the CDD, the PID must be changed to prevent erroneous jeopardies and functions due.

B. Computer Operations

2.13 Computer processing of the automatic reports is done at night and sent to each location before 8 AM. The computer is available for Inputs, Updates, Actuals and Requests from 8 AM to 6 PM. It is desirable to spread the computer load, insofar as possible, over the entire day. Studies indicate that maximum computer usage will occur between 2 PM and 5 PM. It is therefore desirable to make all possible use of the morning hours by initiating requests for programs such as FUNCDUE, ISCREPT, MISDD, ENGLOAD, etc. , as soon after 8 AM as possible. Instructions for accessing the computer for "requested" programs of this nature are included with the exhibits at the end of this practice. There are, however, some general rules that will be helpful in accessing the computer:

C. Correcting Typing Errors

2.14 It is possible to correct typing errors provided they are found before typing the carriage return in that line. To delete the entire line, depress the ESCAPE KEY (ALT MODE on some terminals). The computer will respond with *D and will return the carriage. Or, individual characters can be deleted by striking the reverse arrow (←) key. If one ← is typed the last character (or space) will be deleted, if five ← are typed, the last five characters will be deleted. However, if the carriage return has already been typed, neither option will work. It is therefore important that each line be proofed before typing carriage return.

D. Disconnecting from the System

2.15 When a program has completed running, the computer will print READY. This indicates it is ready for another program. If you want to disconnect, type BYE and carriage return. If you are in the TAPE mode or DATA (DAT) mode and want to disconnect, you will have to type the control Z (depress the CTRL key and Z key at the same time) to tell the computer that you are finished sending data. Otherwise it will consider BYE as another bit of data.

2.16 If you save a wrong file name and have already returned the carriage, do not continue. Start all over again from the beginning and notify the designated person of the error.

2.17 Error messages from the computer are generally self-explanatory. They should be followed up and rectified promptly. Messages that are not understood should be referred immediately to the designated person for handling. In no case should a message be ignored.

2.18 Computer file protection will be accomplished in this manner. Each night before processing is begun, a duplicate file will be made on magnetic tape. This tape and the previous night's tape will always be retained as back-up for the main computer disk file. Therefore, all input paper tapes and other input source documents should be retained for at least two days following input so that the main file could be reconstructed from the latest magnetic tape and current input information.

2.19 It will be necessary each month, after all monthly reports have been prepared, to remove the records of all orders completed during the previous month. This should be done promptly in order to minimize the number of records in the computer file. The area ISC team should agree on a date and clear all records by using the clearing program, "DELCOMP". As the computer file is cleared, the deleted records will be printed by the teletype terminal. This hard copy should be retained for reference, if needed.

E. Orders that Have Been Cancelled

2.20 Cancelled orders should be removed from the computer file periodically. The ISC team shall do this at least weekly by running the program "DELCANCL". This should be done early in the morning.

F. Outputs from the Computer

2.21 Reports are sent automatically by the computer each night to RDO's, PCO's and ISC teams. If the computer is unable to reach a terminal, it will, after a predetermined number of unsuccessful attempts, transmit the information to the ISC plant terminal. This should then be retransmitted to the appropriate PCO or RDO by the ISC team member to whom it was sent.

2.22 If, for whatever reason, the automatic Outputs have not been received, they may be obtained by the ISC team members by calling the computer and requesting them. The procedures for doing this are shown in an exhibit. The methods for obtaining ISC print-outs and RDO-PCO print-outs vary slightly. Both methods are shown in the exhibit.

3. MARKETING DEPARTMENT

A. Basic Responsibilities

3.01 The prime responsibility of Marketing under this system is the issuing of an accurate, complete order. It is essential to the proper operation of this system that this take place. Inaccurate and/or incomplete orders cause undesirable do-over work and can cause erroneous data to be entered in the computer.

3.02 Although it is recommended that Area Marketing handle the initial input preparation and entry into the system, it could be handled by some other group if the Area so chooses and if it best matches that area's procedures and organization. Regardless of which group enters the initial input data, the Area ISC Team is the Area Administrative group charged with the proper operation of the system in their area.

3.03 Marketing should initiate a jeopardy at any time they encounter a situation which will put the customer due date in jeopardy. Procedures for entering the manual jeopardy are found in the mechanization section and the exhibits. ISC procedures for handling jeopardies are outlined in 010-520-101, 102, and 902 SW.

B. Outputs

3.04 Since there is only one automatic

output to an area ISC team, Marketing should arrange to receive a copy.

3.05 Those automatic print-outs that Marketing should pay particular attention to are as follows:

(a) Jeopardy Report.

(b) List of Completion Reports.

(c) DTF-FDD Follow-Up Report.

(d) Distribution of Individual SSO.

3.06 DTF and FDD Follow-Up - Marketing will receive automatically the list of DTF and FDD orders on which follow-up action is required. Upon receipt of this print-out Marketing should initiate whatever action is required to answer the originator.

3.07 Completion Reports - Marketing ISC, along with Plant and Engineering will receive each morning an automatic print-out of completions reported yesterday . Marketing may then use this report as their notification of service completion. Marketing may use this report to initiate their billing document to Accounting on private line circuits. To use this report to initiate billing on FX services, the billing area must put a PCO in the PCO field on initial input of the SSO.

3.08 Jeopardy Report List - Marketing will take action on receipt of a jeopardy as outlined in previous sections of the SWBT and AT&T Practices. Marketing should note the record on each SSO paper file that a jeopardy was filed, date, reason, etc. Follow-up action should take place according to the practice and locally established routines.

3.09 Distribution of Individual SSO Data - Marketing should periodically verify this list with their previous day's input to insure that all data went in properly. The two functions dated PED and PID should be noted on the individual SSO file.

C. Programs Available to Marketing

3.10 SSOIN - Initial Input - This program is described in the exhibit section and is used to enter the SSO data initially into the computer. Error messages will occur if any of the data being entered are incorrect or unacceptable to the computer. Examples of these messages are contained in the exhibit section.

Error messages must be analyzed and the error corrected. SSO's with error messages are not acceptable and do not go into file. The error must be corrected and the SSO re-entered.

If error messages which are not readily recognizable are received, they may be system commands which cannot be corrected locally. In these cases the designated person should be notified immediately of the problem in order that the situation may be corrected.

3.11 UPDATEX - The UPDATEX program is described in the exhibit section and is used to enter, in a short form, update or supplemental information to change the data that is in the main file. Only orders which have not been completed may be updated. Completed orders are held in the completion file and are not available for update programs. When updating a CDD a new PED and/or PID must be entered also. The computer will not recalculate these dates.

Error messages which may be received are contained in the exhibit section. When error messages are received they should be analyzed, correction made, and the data re-entered. SSO's with error messages are not accepted by the computer.

Error messages which are not readily recognizable may be system errors and should be handled as outlined in Paragraph 3.10.

3.12 Jeopardy - The jeopardy program is described in the exhibit section and

is used to place an order in manual jeopardy. The manual jeopardy places the customer due date (CDD) in jeopardy and will appear only in the "old jeopardy" print-out section. For coordinative effect the person putting an order in jeopardy should also clear the jeopardy.

The use of this program should be in accordance with procedures outlined in 010-520-101, 102, and 902 SW.

3.13 Clear Jeopardy - The clear jeopardy program is described in the exhibit section and is designed to clear the jeopardy condition of an SSO. Generally DID and manual jeopardies only should be cleared with this program. PED, PID and CDD jeopardies should generally be cleared by their actual programs. Caution should be used in using this program to clear a DID jeopardy. If the PED date is past, Engineering will not receive a function due print-out. It is best that Engineering clear the DID jeopardy by entering their actual PED.

3.14 Functions Due - The functions due program is described in the exhibit section. It is designed primarily for Plant and Engineering use to obtain a listing of their functions due on a particular day or up to a span of five calendar days in the same month. The functions PED, PID, PTD, and CDD are obtainable by PCO or RDO location.

3.15 Missed Due Dates - The missed due date program is a status type program obtainable at any time. It is designed to provide a list of SSO's that are (1) past due and not yet completed and (2) completed past the due date. The illustrations on this program are contained in the exhibit section.

3.16 DELCANCL - The DELCANCL program is designed to provide a means to clear the area files of all canceled orders. The program should be run at least once a week preferably early on Monday morning after the nightly print-outs are received. This program will also remove and clear all jeopardies on the canceled orders.

It is essential that this program be run periodically to keep the file size and character storage to a reasonable size.

This program will remove all orders from the file that have "cancl" in the scheduled CDD field (#6). No print-out of deleted canceled orders will be received during this program.

3.17 DELCOMP - The DELCOMP program is designed to provide a means to clear the area files of completed orders. A listing in random sequence will be printed of the orders being removed.

This program should be run only once a month and upon interdepartmental agreement. This should usually be done during the second week of the month following the month under report. Maintenance of this program will ensure that the area's files are not any larger than necessary.

3.18 Daily File Listing - This program is called "NEWFILE" and is provided for the purpose of obtaining a listing of the data entered the previous day in file format. This will enable the areas to keep their file records as up-to-date as possible by attaching this listing to the complete file list received by mail each Monday morning. This program must be requested from the computer and is obtainable for only one day at a time, the previous day's input.

3.19 Individual SSO Status - Use this program with discretion! The computer running time is rather long since several files have to be searched. Thus it disturbs the efficient operation of the computer as well as being expensive.

Marketing (or any department) can utilize this program to obtain the specific status of any order in file. Before requesting this program, the weekly file dump should

be reviewed to see if the status information is obtainable there. If not then request the status report. Details are found in the exhibit section of this practice.

Unless there is a known reason for checking further, the information contained in these print-outs could be utilized for answering telephone requests for status. It could also be used to obtain the computer history on SSO's whose due dates were missed. As such, it may be used for missed due date analysis by the ISC team.

4. ENGINEERING DEPARTMENT FUNCTIONS

4.01 The Engineering Department's responsibilities in implementing System Service Orders (SSO's) under the ISC plan are presently executed under the System Plan and the SW 900 Series. The purposes of this section are:

(a) To extend the application of the ISC Plan to include mechanization of the System Service Order.

(b) To describe in general terms the information to be received from the computer and the required inputs to the computer.

4.02 The Pre-Engineering Date is the date all information is required to be in the Engineering Department to start engineering the circuit for the locations on the SSO.

4.03 The exchange of information between departments may require telephone contact to collect some of the items needed to start engineering the circuit in your area. An example of some of the items to be checked are: Local Facilities per CKL, Inter-City Facilities (IXC), Compatible Central Office Equipment, and any other items which may be required to provide the service for your CKL.

4.04 Each area will respond to their PED, even though the same SSO may go to several areas. A separate file will be kept in the computer for each area. Services involving two or more areas will be handled in the same manner as those involving two or more associated companies as outlined in BSP 010-520-136. The Control Engineer will answer the PED function for the Inter-City Facilities and the locations in his area.

4.05 The Pre-Engineering Date function must be positively answered or the automatic jeopardy will be generated by the computer.

4.06 The Automatic Jeopardy on the PED advises the department that the person responsible for the actual report has not responded or filed a manual jeopardy.

4.07 The function PED requires an actual response even though the date is missed. The Engineer's initials will be put in record at this time and the actual date will clear the automatic jeopardy.

4.08 A file or log of the jeopardy printouts should be maintained to determine the reason for the jeopardy. This will develop trends for ISC or department action.

4.09 The following is a brief description of typical inputs and outputs involving Engineering. Detailed instructions for accessing the computer for the different programs will be found in the section covering Exhibits.

AUTOMATIC OUTPUTS TO ENGINEERING

1. SSO, SSO Update and supplements will be distributed from the computer automatically. All updates are made from Marketing for records purposes. The section on Exhibits shows this output.

2. Automatic distribution of the Pre-Engineering Date function will be received at opening of business on that date.

3. Automatic distribution of the jeopardy report will be received at opening of business. This report will show the new and old jeopardies, function in jeopardy, DID, PED, PID, or CDD. Initials and department will be shown on the manual jeopardy. See exhibit section for example. DID and MAN will appear as old jeopardies.

4. Automatic distribution of Date-to-Follow (DTF) and Furnish Due Date (FDD) orders will be furnished 8 working days from the application date. This print-out is shown in the exhibit section.

5. Completion reports will be distributed from the computer automatically showing list of serving links completed and list of completion reports. Orders where the plant control is outside your area will show the CKL completed as serving link and when the last CKL is completed, the order will show in the completed list. Orders that have a Plant control office in your area will show on the completed list when the PCO completes by the actual CDD. These will be used to clear files, information for division of revenue, etc.

INPUTS FROM ENGINEERING

1. The Actual, positive report of the Pre-Engineering Date (PED) will be input to the computer. When all items needed to engineer the service have been received the actual PED will be entered showing SSO, date and Engineer's initials. This input to the computer will be made as shown on Exhibit 3 page 25. Circuit design work will normally be performed in the Engineering Department. However, if this work is performed at the Division Plant level the group doing the design will be required to answer the PED actual.

2. Manual jeopardies are to be used when a condition is recognized which puts the Customer Due Date in jeopardy.

   This report will follow the methods as outlined in the ISC Practice. The only items required will be the SSO No., CKL, initials and department as shown in the mechanization section. When a manual jeopardy is on file, an automatic will not be issued. If the entire order is in jeopardy, enter 99 for the CKL. This will automatically include all points.

3. Clear Jeopardy. This entry will be required when the condition is cleared which put the SSO in jeopardy. See exhibit section for example.

4. Update. When it is necessary to change a field, e.g., the PED, Marketing will access the computer and enter the following: SSO, Field No., and new information for that field. The same procedure will be used for supplements to SSO's.

MANUAL REQUESTS FOR INFORMATION

1. The following programs are available on request: ENGLOAD, FUNCDUE, MISDD, STATUS and ISCREPT. These should be requested in the A.M. if required, to allow full time for inputs in the P.M.

2. Access and handshake information may be found in the exhibit section.

3. A numerical working file will be provided by mail of orders that are in your area.

5. PLANT DEPARTMENT FUNCTIONS

5.0 General

5.01 The purposes of this section are:

(a) To extend the application of the ISC Plan to include mechanization of the System Service Order.

(b) To describe the information to be received from the computer and the required inputs to the computer.

(c) To establish District responsibility for station location work

(d) To establish an early reporting date for Plant to check availability of all required information and material.

5.02 The Plant Department's Responsibilities in implementing System Service Orders (SSO's) under the ISC Plan are presently covered under BSP's 010-520-1XX and 010-520-9XX SW. No changes in the ISC Plan are proposed by this mechanization practice.

5.03 This Section expands the ISC practices to assign specific responsibilities in the life of an SSO for the period between Engineering completion and the Plant Test date.

5.04 The "Pre-Installation Date" (PID) is a new date created for the purpose of confirming plant readiness at a customer location. This is the date when all hardware, paper work and test equipment should be in the hands of, or available to, the supervisor responsible for work at the customer location. A positive report to the computer is required from the Plant District. This date is such that installation can be completed by the Plant Test Date.

5.05 The "Responsible District Office" (RDO), a new term used in this practice, is defined as the location or person assigned the responsibility for implementation of all Private Line serving links and Special Exchange Services within the Plant District as ordered by SSO. (See 5.2)

5.06 SSO's for implementing service wholly within Independent Company territory, (example: DATA-PHONE Service terminating in the ICO switcher), are the responsibility of the Bell Independent Relations (BIR) of the area involved. The Area BIR shall be responsible for certain RDO functions on these services. (See Section 6.0). This in no way affects the District Responsibility for services terminating in, or passing through a Southwestern Bell Exchange.

5.07 Each Area will receive and answer the critical dates even though the same SSO will go to several Areas or Companies.

5.08 The Plant Department is responsible for the Assignment of Plant Control Offices and Responsible District Offices. In order to achieve maximum utilization of this mechanization program, the "PCO" and "RDO" assignments for all ISC Services must be included on the original Computer Input by Marketing. ISC Plant is responsible for preparing a table, in a satisfactory format, for Marketing to use in these assignments.

5.1 ISC Plant

5.11 The Area ISC Team is charged with the proper operation of the mechanized system in the area.

5.12 Plant ISC will receive a daily automatic output from the computer. This will include:

(a) All Jeopardies regardless of type. Take appropriate action to clear.

(b) SSO DISTRIBUTION - All SSO's or supplements entered into the computer yesterday.

(c) PED FUNCTIONS DUE - No Plant action required.

(d) DTF AND FDD - If the department is "P", furnish Marketing firm due date within two days.

(e) COMPLETIONS - Clear files and any posting routines required.

5.13 Plant will receive a weekly "File Dump". This is a complete log and status of all orders that have not been completed in the computer as of the preceding Friday night.

5.14 Plant ISC is responsible for entering

and clearing to the computer, manual jeopardies originated by the field forces.

5.15 The "Man on Job" or "as of" order must be coordinated with Marketing and the completion entered in the computer on the same day Marketing enters the order, but after the initial input is made.

5.16 Plant ISC is PCO 99. This designation covers SSO's that are Area control with locations outside the Area and no PCO inside the Area. Plant ISC is responsible for "actuals" to the computer.

5.17 "Inter-area" FX services should have special consideration. Billing is handled on the "open" end of the circuit with the PCO at the customer location end. BSP 010-520-902 SW, Exhibit 11, provides that the Non-control STC shall complete to Non-control Plant ISC to fulfill the Billing requirement. To comply with these requirements and the mechanized plan, the Non-control area should assign the open end STC as control for the area. This will allow the computer to generate a completion when service is established.

5.2 Responsible District Office

5.21 The Responsible District Office (RDO) will receive only the outputs from the computer that directly involve circuit locations in the Plant District.

5.22 The Pre-Installation Date (PID) is a date created for the purpose of confirming Plant readiness at a customer location. This date, or function, is automatically scheduled from the computer for the purpose of allowing the District Plant forces to check and confirm all items required to complete the installation are on hand. The RDO is responsible for all PID functions.

5.23 The RDO is required to respond to the computer on the PID and the Customer Due Date (CDD). If there are reasons why the customer service date may not be met, the "Actual" to the computer should be omitted and a jeopardy filed through Plant ISC as covered in the ISC practices on the item or items not satisfactory. A manual jeopardy should be entered into the computer by Area ISC.

5.24 The automatic computer output to the RDO will be available to the office by the opening of business each day. Following is a list of items on the print-out and their Disposition by the RDO:

(a) SYSTEM SERVICE ORDERS DISTRIBUTED - An SSO or Supplement was entered yesterday with a circuit location in the RDO District. Verify that the Installation interval is adequate. Record information in Due Date File.

(b) FUNCTION DUE - PID - This is the Date Plant must be ready to start work. The work forces should have all hardware, software and test equipment to complete the Installation. The PID must be acknowledged to the computer the same day. Station Installation work should start to assure completion by the Plant Test Date. If the PID is not answered, a jeopardy will be created.

(c) FUNCTION DUE - PTD - This is the Plant Test Date as specified on the order and serves as an alert to the RDO that the Plant Control Office is starting overall testing. Station installation work must be completed prior to this date.

(d) FUNCTION DUE - CDD - This is the date service must be provided to the customer. The CDD must be acknowledged to the computer by the RDO when completed, as follows:

(1) A private line serving link is installed and tested to the satisfaction of the assigned STC. (Usually on or before the PTD)

(2) Special Exchange Service when service has been established and

released for the customer's use. (Billing is started from this completion to the computer).

(e) JEOPARDY - PID - PID Function was not performed as scheduled. Perform the function as indicated in (b) to remove this jeopardy.

(f) JEOPARDY - MAN - Some location has seen a reason that the customer Due Date may not be met. If the District location is involved, work with Area Plant ISC to clear the jeopardy condition. If the District location is not involved, proceed with installation.

(g) JEOPARDY - CDD - A completion report has not been entered into the computer for the District location. Enter a completion if service is installed, see (d).

5.25 If "exceptions" to the service as ordered or the Engineering layout are involved, contact Plant ISC for instructions in handling the completion report.

5.26 The condition may be discovered where the customer does not want, or is not ready for service on the Due Date as specified on the order. "Customer Not Ready" may be noted as early as the PID. Upon discovery, the information should be referred to the PCO and Plant ISC. The RDO should also immediately enter into the computer the alpha characters "CNRDD" as an "Actual" completion (ACTCDD). This will stop all further scheduling and jeopardy print-outs while sales is negotiating a new customer service date. When Marketing enters a new Due Date, the CNRDD will be automatically removed from the computer and new distribution and scheduling will follow based on the new dates.

5.3 Plant Control Office

5.31 A Plant Control Office (PCO) in the Area will receive all computer outputs for SSO's controlled by that office.

5.32 The PCO is required to complete his order, using 99 as the circuit location, to the computer by the close of the business on the day following the Due Date. This is the only completion report recognized as final by the computer for services with an assigned PCO and should only be made when service has been established to the customer's satisfaction.

5.33 If "Exception" to the service as ordered or the engineering layout are involved, contact Plant ISC for instruction in handling the completion report.

5.34 The condition may be discovered where the customer does not want, or is not ready for, service on the Due Date as specified on the order. "Customer Not Ready" should be referred to the Plant ISC. The PCO should then enter into the computer the alpha characters "CNRDD" as an actual completion (ACTCDD). This will stop all further scheduling and jeopardy print-outs while sales is negotiating a new customer service date. When Marketing "updates" with a new due date the CNRDD will be automatically removed from the computer. New distribution and scheduling will follow based on the new dates.

5.35 If the Plant Control Office is aware of any condition that may cause the customer service date not to be met, a jeopardy should be filed through ISC Plant. A manual jeopardy will be entered into the computer by Area ISC Plant.

5.36 The Automatic computer output will be transmitted daily to the PCO teletypewriter and be available at the opening of business. Following is the list of items on the print-out and the disposition to be made by the PCO:

(a) SYSTEM SERVICE ORDERS DISTRIBUTED - An SSO or Supplement was entered

yesterday for which the office is PCO. Verify critical dates and interval can be met.

(b) FUNCTION DUE - PID - The customer locations should be ready to start work. Notify all STC's on the circuit within Southwestern Bell Telephone Company that station work is starting.

(c) FUNCTION DUE - PTD - Start overall testing as covered in other applicable practices.

(d) FUNCTION DUE - CDD - Service should be turned over to the customer on this date. This date must be acknowledged to the computer when completed.

(e) JEOPARDY - DID - This appears as an OLD JEOPARDY and is an indication that a Marketing office held the order beyond their allowed interval before distributing to other Departments or Areas. Check the interval with care and file a jeopardy to Plant ISC if required.

(f) JEOPARDY - PED - This is an indication that engineering did not start on schedule. No action is required by the PCO at this time, but it is an alert that problems may develop later.

(g) JEOPARDY - PID - An RDO within the Area has not responded to the computer as being ready to start installation. The RDO should take immediate action to find the cause of the problem with help from the PCO where needed.

(h) JEOPARDY - CDD - A completion has not been entered into the computer. Clear by performing the function covered in (d).

(i) JEOPARDY - MAN - Some location has seen a reason that the customer due date may not be met. If all details are not in the hands of the PCO, contact Plant ISC.

6. BELL INDEPENDENT RELATIONS FUNCTIONS (BIR)

6.01 Basic Responsibility

The primary responsibility of the BIR is to assist other Departments in performing their functions where an Independent Company is involved in providing a part of the service covered by the SSO. In those instances BIR will perform these functions.

6.02 Marketing Department Functions

BIR will follow the DTF dates and obtain a firm due date from the Independent Company and initiate a supplement to enter the firm date into the computer.

6.03 Engineering Department Functions

BIR will obtain the necessary data from the Independent Company to enable the Engineering Department to complete the circuit requirements, e.g., local loop make-up.

6.04 Plant Department Functions

BIR will obtain from the Independent Company the date (PID) they will have the equipment and/or facilities necessary to complete their part of the order.

In addition BIR will inform the Independent Company of the Plant Test Date (PTD).

6.05 Special Exchange Services (WATS. Data Service, TWX, etc.) established within Independent Company territory are the responsibility of the Area BIR involved. The BIR should be responsible for the following RDO functions associated with these services.

(a) The BIR will function as a RDO and receive only the outputs from the computer that directly involve these special exchange services in Independent Company territory.

(b) The BIR will be required to respond to the computer on the Pre-Installation Date (PID) and Customer Due Date (CDD).

If these dates cannot be confirmed then a manual jeopardy will be entered directly into the computer by the BIR.

(c) The CDD will be acknowledged directly to the computer by the BIR when service has been established and released for the customers use. (Billing will be started from this completion report.)

6.06 Jeopardy Dates

It is the BIR's responsibility, as it is with the other Departments, to initiate a jeopardy report to the computer in any instances where they obtain information that any function date is likely to be missed.

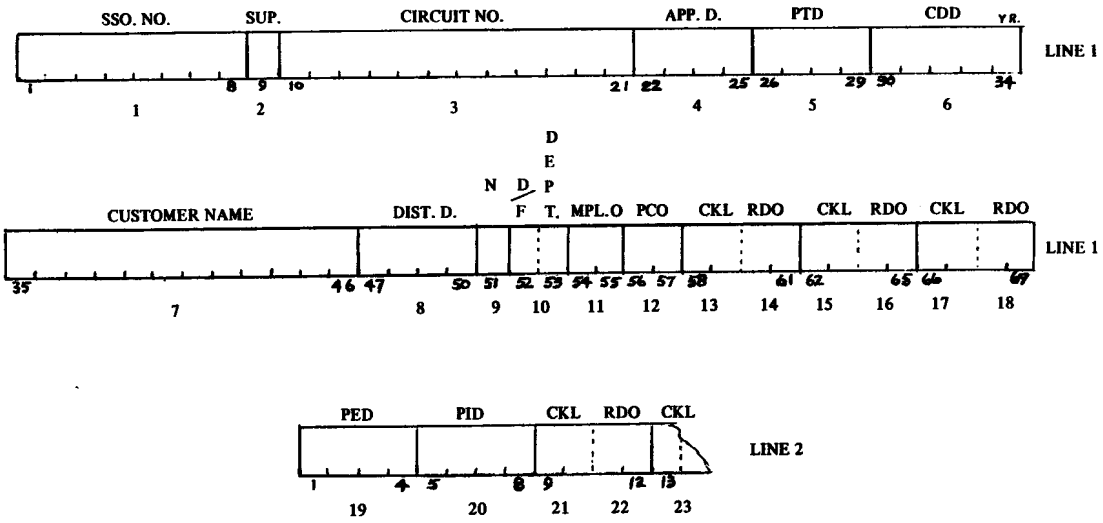
EXHIBIT 1

SYSTEM SERVICE ORDER - INPUT

FIELD	DESCRIPTION	INPUT INSTRUCTIONS
1	SSO No.	Always 8 numeric Characters
2	SUP.	Always 1 alpha character. If not used, enter space.
3	CIRCUIT NO.	Any combination of alpha, numbers, spaces and symbols - Start at left (Pos. 10). If less than 12 characters, fill out field with spaces by hitting space bar. When field No. 11 (MPL. 0) is used, the circuit number must end with at least 3 numeric digits (Ex. 6TL435) (8 FA001).
4	APP D.	Application Date - Always 4 numeric characters (Mo. & Day)
5	PTD	Plant Test Date - Always 4 numeric characters (Mo. & Day). If not used, enter spaces.
6	CDD	Due Date - Always 5 numeric characters (Mo., Day and last char. of year).
7	CUSTOMER NAME	Any combination of alpha, numbers, spaces and symbols - start at left (Pos. 35). If less than 12 characters, fill out field with spaces by hitting space bar.
8	DIST. D.	Date order is distributed to the field. Always 4 numeric characters (Mo. & Day)
9	N	Enter N for new order.
10	D/F	Enter D if DTF order, F if FDD. If not used, enter space.
	DEPT.	Enter department responsible for obtaining firm due date. Enter M for Marketing, P for Plant, E for Engineering, I for Bell Independent Relations. If not used, enter space.
11	MPL. O.	Always 2 numerical characters (Ex. 06) or 2 spaces when not used. Multiple Orders must be identical in all respects except SSO No. and Circuit No. If SSO No.'s and Circuit No.'s are continuously numbered without a break, enter the first order only, with the total number of orders in the MPL. O. field. The circuit number must end in at least three numeric characters. (Ex. 6TL435) (8 FA001)
12	PCO	Enter a 2 character code as determined from the PCO-RDO Table for the Plant Control Office. If no code is shown, enter 2 spaces by hitting space bar.
13 15 17 21 Etc.	CKL	Enter Circuit Location Code as shown on the SSO. If it contains only one character, enter that character first and then a space. If it contains 3 or 4 characters enter the first character and a number to indicate how many characters. For example, AAA becomes A3, BBBB becomes B4, etc.

EXHIBIT 1 (CONT.)

FIELD	DESCRIPTION	INPUT INSTRUCTIONS
14	RDO	Enter a 2 character code as determined from the PCO-RDO Table for the Responsible District Office.
16		
18		
22		
Etc.		
19	PED	Enter Pre-Engineering Date and Pre-Installation Date if interval between Application Date and Due Date exceeds 30 working days. If it does, these 2 dates shall be determined by the ISC team, and entered as 4 numeric digits (Mo. & Day). If interval is 30 days or less, ignore Line 2, or if Line 2 is needed for CKL's and RDO's, enter spaces in the PED and PID Fields by hitting space bar.
20	PID	When Line 2 is needed, enter an asterisk (*) after the last entry in Line 1, then hit carriage return and line feed. This would apply if Line 3, etc., are needed.



SYSTEM SERVICE ORDER - INPUT

END OF LINE 1

NOTE: IF LINE 2 IS NEEDED, ENTER ASTERISK (*) AFTER LAST ENTRY IN LINE 1.

LINE 2

IF PED & PID ARE NOT ENTERED, AND ALL CKL'S CAN BE ENTERED ON LINE 1, IGNORE LINE 2.

IF PED & PID ARE NOT ENTERED AND ALL CKL'S CANNOT FIT ON LINE 1, ENTER BLANKS (SPACES) IN POS. 1 THRU 8 AND START CKL IN POS. 9 (FIELD 21).

IF A THIRD LINE IS NEEDED FOR CKL-RDO'S, ENTER ASTERISK (*) IN POS. 69 OF LINE 2. SAME PROCEDURE FOR ADD'L LINES, IF NEEDED.

EXHIBIT 1 (CONT.)

SYSTEM SERVICE ORDER - INPUT

Input information will have been punched off-line on paper tape and proofed with the hard copy. When proofing indicates the paper tape is correct, proceed as follows:

INSTRUCTION	MESSAGE
The computer prints,	IN AT XX:XX
or if you had been using it	READY
You type and CR	SCR
The computer prints	READY
You type and CR	TAPE
The computer prints	READY
You turn on tape reader	
Tape stops	
You enter Control Z	
The computer prints	READY
You type and CR	SAVE MKT
The computer prints	READY
You type and CR	OLD SSOIN
The computer prints	READY
You type and CR	RUN
The computer prints	WHAT IS YOUR FILE NAME?
You type and CR	MKT
The computer prints any errors	********** END PHASE 1 EDIT*******
and messages - When the computer is finished processing it prints	READY
You type and CR	SCR
The computer prints, and you are ready to go to another program or BYE	READY

SAMPLE SSOIN ERROR MESSAGES

There are many error messages that may be received by the terminal operator while entering data on this program. Two basic types exist, one is a system error message which may not be readily understandable and the other is a data type error message which is usually readily understandable.

The system error messages which will not be listed here should be referred to the designated person for interpretation and assistance in correction. The data type error messages should point directly to the error which can be corrected locally.

SSO's which appear with error messages, did not go into the computer file. All other SSO's did go into file. Correct the errors and re-enter. When a system error message appears, notify the designated person immediately and give him all the information pertaining to that input.

EXHIBIT 1 (CONT.)

Following is a Sample of Some of the Data Error Messages

- SSO NO NOT NUMERIC	- There are not eight numeric characters in the SSO number.
- APP D NOT NUMERIC	- There are not four numeric characters in the application date field.
- PTD NOT NUMERIC	- There are not four numeric characters in the Plant test date field.
- CDD NOT NUMERIC	- There are not five numeric characters in the customer due date field.
- DATE ERROR	- Usually means an input format error in one or more of the date fields.
- Error - Pos 1 of CKL 2 - Missing Circuit Location	- A message of this type points to an error in a specific character position of a CKL field - usually this field is blank while the RDO field has a designation in it.
- MPL ORD FIELD MUST BE BLANK OR NUMERIC	- Some character such as an alpha character is in this field and must be corrected before the order will be acceptable. Field must contain 2 numeric or 2 blanks.
- WHEN COL 52 IS BLANK, DEPT MUST BE BLANK	- Character position #52 the F or D is blank while the Dept. character (#53) has a character in it. These two fields are tied together and must be complete before the order is acceptable.
- FIELD 9 NOT N	- Means that the N was not entered in field #9. Check the input page copy and the input form.
- DIST. D NOT NUMERIC	- Means there are not four numeric characters in the distribution date field. If the page copy and input form appear correct, check the alignment of characters to be sure the customer name field has its full number of characters.
- Supp. NOT ALPHA	- The supplement character was entered as some character other than an alpha character.
- NOT FOUND OR FOUND IN ERROR	- On new order this message means it found a duplicate order in file.
- MISSING RDO	- Means that a CKL field has data but its companion RDO designation is missing.
- STRING NOT NUMERIC XPLODE	- May mean that there is a numeric value in field 11 indicating a multiple order and the last three digits of the circuit number (field 3) are not numeric. This is a system error and the orders following the one in error on the tape will not be processed.

EXHIBIT 2

UPDATE SYSTEM SERVICE ORDER RECORD

Update information will have been punched off-line on paper tape and proofed with the hard copy. When proofing indicates the update tape is correct, enter in the computer.

If accessing the computer initially the handshake will be as follows:

you dial the computer number	
the computer prints	BELSTAR FEB 19, 1970
the computer asks. you add No. & CR	ID.- YOUR NUMBER
the computer prints	IN AT 09:30
you type & CR	TAPE
the computer prints	READY
your turn on tape reader	
tape stops	
you enter control Z	
the computer prints	READY
you type & CR	SAVE UPD
the computer prints	READY
you type & CR	OLD UPDATEX
the computer prints	READY
you type & CR	RUN
the computer may print	WAIT
the computer prints errors & messages	
the computer prints	READY
you type & CR	SCRATCH
the computer prints	READY
you are now ready to go to another program or BYE	

UPDATE SYSTEM SERVICE ORDER RECORD

Information to be entered into the computer by means of punched paper tape should be in the following format:

SSO No. (8 digits) comma circuit location (one or two digits) slash field number comma new data to be entered slash field number comma new data to be entered, etc. --

For example, updating SSO No. 17501234, all circuit locations, entering new supplement B, changing due date and plant test date would be punched into paper tape as follows:

Updating Field 20 (PID) is required when changing the customer due date.

17501234,99/2,B/6,02250/5,0223/20,0219/CRLF

UPDATEX PROGRAM NOTES

1. SSO Number - cannot be updated. If a change needs to be made in the SSO number, the number in file must first be canceled and the new SSO number entered in the computer along with all the pertinent information.
2. Supplement - can be updated to any single alpha character. - Use 99 for CKL. Never use the CKL alpha code when a supplement is being updated.

EXHIBIT 2 (CONT.)

3. Circuit Number - can be updated to any other alpha, numeric or alphanumeric combination desired. You must put the full 12 character field length in the update entry data.

4. Application Date - should not be updated. This date is one that the computer uses to calculate intervals for PED/PID and DTF/FDD print-out.

5. Plant Test Date - can be updated - however, if this date is to be changed, a check should be made to see if the PID should be changed and, if so, make this update at the same time - use 99 as CKL.

6. Customer Due Date - can be updated - also update the PID and PTD at the same time. Updating the CDD will automatically clear all jeopardies except manual jeopardies. When changing for telephone company reasons enter the new date with a "C" in the year space.

7. Customer Name - can be updated - use 99 as CKL. Fill out field to 12 characters by using spaces.

8. Distribution Date - should not be updated - the computer uses this date along with the interval to calculate the DID jeopardy.

9. New Order (N) - cannot be updated - the computer cleans out this field after the new order has been sent out on SSO distribution on the nightly routine.

10. DTF/FDD - cannot be updated.

11. Multiple Order Field - cannot be updated - if sequential orders should have been entered on the initial input, the additional orders will now have to be entered individually.

12. Plant Control Office - can be changed - use 99 as CKL - this data is only in the master record of the SSO. You cannot delete a PCO.

13. Circuit Location (CKL) - This field cannot be updated. If you attempt to do so and the computer accepts it then your files are out of sequence and you may receive erroneous error messages on that SSO number and others. Call the project team for instructions.

14. Responsible District Office - This field can be updated. Use the CKL designation of the location in question. Do not attempt to change two RDO's on the same update entry. Use a separate entry for each RDO to be changed. - In updating the RDO is always field 14!

15. Pre-Engineering Date (PED) - can be updated - When changing the PED, check to see if the PID needs to be changed also. - Use 99 as CKL.

16. Pre-Installation Date (PID) - can be updated - when changing the PID a check should be made to see how this will affect the Plant test date and is it crowding the customer due date. This must always be changed when updating the Plant test date and/or the customer due date since the computer does not recalculate PID. Use 99 as CKL.

17. Use of 99 as CKL - Will always update all circuit locations. It should always be used when changing any date.

18. Two Line UPDATEX - if the need should arise where the update information on one SSO should exceed 72 characters hit an asterisk after the last slash and then carriage return and line feed. The asterisk indicates more of the same SSO is to follow.

19. Changing Dates - use 99 as CKL any time the dates are changed on an order. Remember to change the PID (field #20) when the CDD is changed. The computer will not recalculate the PED/PID on the UPDATEX program.

EXHIBIT 2 (CONT.)

20. Canceling an SSO - use UPDATEX program, enter the SSO number, 99 as the CKL, enter CANCL in field 6, and the supplement in field 2.

21. Canceling a Circuit Location - use the UPDATEX program, enter the SSO number, that CKL designation, CANCL in field 6, Supplement in field 2. If only one CKL in your area, use 99 as CKL and cancel the entire order.

22. Changing an Actual Date -

    a. PED/PID - use the original ACTUAL program and input the correct information in the same manner as the original "actuals" were entered. Care must be taken to do this prior to entering the "CDD ACTUAL."

    b. CDD - this change must be done on the same day the erroneous actual was entered. If the error is not discovered until the following day or later, call the designated person immediately. This is necessary since the nightly processing run removes a completed order from file and it is no longer available for change.

23. Changing the Due Date for Telephone Company Reasons

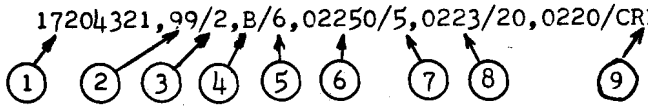
    Use 99 for CKL - enter the new date in field 6 with a "C" in the year space - also check the PID, PTD to see if they should also be changed.

TYPICAL UPDATE ENTRIES

Example 1. Change Due Date

Enter: (SSO No. & CKL must be first - other fields and data can be in any sequence)

17204321,99/2,B/6,02250/5,0223/20,0220/CRLF



(1) SSO NO. - Always 8 numeric digits only - no spaces

(2) CIRCUIT LOCATION - can be one alpha, two alpha, one alpha and one numeric or 99 (to update all locations) - no spaces

(3) (5) (7) FIELD NO. - Can be 1 or 2 numeric - no spaces

(4) SUP. NO. - One alpha - no spaces

(6) CDD - 5 numeric (MO., DAY, Last digit of year)
4 numeric + C when changing the customer due date for telephone company reasons.

(8) PTD - 4 numeric (MO., DAY)

(9) Strike carriage return and line feed at end of each SSO update.

EXHIBIT 2 (CONT.)

Example 2. Change Circuit Number

17403345,99/2,A/3,GP388121-001/ CRLF

CIRCUIT NO.

Can be any combination of alpha, numeric, spaces or symbols. Not to exceed 12 characters including spaces. On multiple orders last 3 digits must be numeric.

Example 3. Change an RDO (RDO field is always 14)

17705434,A4/14,33/ Carriage return, line feed

RDO Field to be changed — New RDO

Example 4. Change PCO

17303467,99/12,EA/ Carriage return, line feed

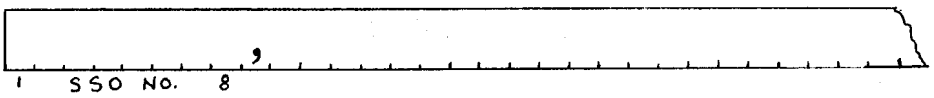
PCO Field — New PCO Code

Example 5. Cancel an SSO

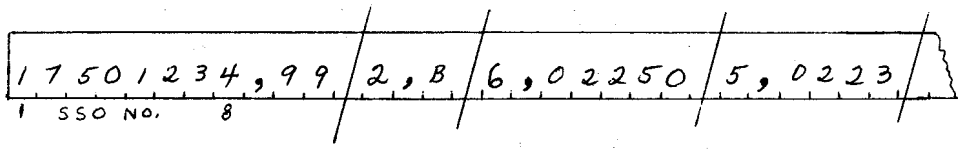
17804416,99/2,A/6,CANCL/ Carriage return, line feed

CDD Field — Enter the word CANCL

It may be desirable to print some forms on which to enter update information prior to cutting the paper tape. An example of such a form is shown below.



It could be used as indicated below.



UPDATEX ERROR MESSAGES

There are two basic types of error messages which will be received by the terminal operator on this program, system and data error messages.

The system error messages, which are not listed here, may not be readily understandable These should be referred to the designated person for interpretation and correction.

The data error message usually will point directly to the error location. These can be corrected locally and re-entered. When this type message appears, only those SSO's attached to these messages did not go into file. All others go into file.

EXHIBIT 2 (CONT.)

Following is a Sample of Some of the Data Error Messages

- ERROR IN FIELD NO. SSO#	X CKL	Means the computer detected an error in the field illustrated. CKL is the CKL designated in the update data. Correct the error and re-enter.
- ERROR IN FIELD CKL SSO#	X CKL	Means the computer detected an error in the field of CKL X. Correct and re-enter.
- INPUT FORMAT ERROR SSO#	XX	The computer detected an input format error in the data being entered. The computer prints out the first two characters after the error. Correct and re-enter.

EXHIBIT 3

INPUT ACTUAL DATES

Actual dates are entered by means of three programs. Use:

ACTPED	To enter actual Pre-Engineering Dates
ACTPID	To enter actual Pre-Installation Dates
ACTCDD	To enter actual Customer Due Dates

There are some general rules to remember when entering actual dates.

1. You may enter up to 10 actuals on one program run. If more than 10 are entered and as many as 10 not found in file, none of that run will be accepted.
2. You must tell the computer when you are finished entering records by typing 0,0,0 (zero,zero,zero) and carriage return.

To change any actual date, use the appropriate "actual" program (ACTPED, ACTPID or ACTCDD) and enter the correct information in the same manner that the original "actuals" were entered.

To delete an actual date, use the appropriate "actual" program (ACTPED, ACTPID, or ACTCDD) and enter zeros for the date. This will delete the old date. In the case of PED enter zeros for the engineer's initials also.

If an actual CDD needs to be changed or deleted, it must be done before 6 P.M. of the day it was first entered. Otherwise the nightly computer run will consider the record completed and move it to the completion file. If this happens you should notify the designated person and re-input any order that completes in error.

INSTRUCTIONS FOR USING ACTPED

INSTRUCTIONS	MESSAGES
The computer prints	IN AT XX:XX
or, if you had been using it	READY
you type & CR	OLD ACTPED
The computer prints	READY
you type & CR	RUN
The computer prints	INPUT SSO#,DATE,INITIALS AFTER EACH ? TERMINATE BY INPUTING O,O,O ?
you type & CR	SSO#,DATE,INITIALS
The computer prints	?
Type entries with CR after each one. Wait for ? before typing each entry.	
End any batch by typing and CR	O,O,O, (zeros)
The computer prints	END POSTING PED
The computer prints	READY
The computer is now ready for another program or BYE	

Notes: 1. If after you type RUN, the computer answers with "FILE IN USE" then someone else in your area is entering actual PED's. Try again later. If you repeatedly receive the message "FILE IN USE," notify the designated person.

2. If you receive error messages such as "DATE IN ERROR" determine what is wrong

EXHIBIT 3 (CONT.)

and re-enter the record. This can and should be done immediately.

3. You must end your entry routine with "0,0,0" (zeros) and wait for the message "END POSTING PED" "READY." Then and only then can you disconnect or go to another program. If you disconnect prior to these messages you will lock the program in "FILE IN USE." When this happens, notify the designated person immediately!

INSTRUCTIONS FOR USING ACTPID

INSTRUCTIONS	MESSAGES
The computer prints	IN AT XX:XX
or, if you had been using it	READY
you type & CR	OLD ACTPID
The computer prints	READY
you type & CR	RUN
The computer prints	INPUT SSO#,CKL,DATE AFTER EACH? TERMINATE BY INPUTING 0,0,0,
	?
you type & CR	SSO#,CKL,DATE
The computer prints	?
Type entries with CR after each one. Wait for ? before typing each entry. End any batch by typing & CR	0,0,0 (zeros)
The computer prints	END POSTING PID
The computer prints	READY
The computer is now ready for another program or BYE	

NOTES:

1. If after you type RUN, the computer answers with "FILE IN USE" then someone else in your area is entering actual PID's. Try again later. If you repeatedly receive the message "FILE IN USE," notify the designated person.
2. If you receive error messages such as "DATE IN ERROR" determine what is wrong and re-enter the record. This can and should be done immediately.
3. You must end your entry routine with "0,0,0" (zeros) and wait for the message "END POSTING PID" "READY." Then and only then can you disconnect or go to another program. If you disconnect prior to these messages you will lock the program in "FILE IN USE." When this happens notify the designated person immediately!

INSTRUCTIONS FOR USING ACTCDD

INSTRUCTIONS	MESSAGES
The computer prints	IN AT XX:XX
or, if you had been using it	READY
you type & CR	OLD ACTCDD
The computer prints	READY
you type & CR	RUN
The computer prints	INPUT SSO#,CKL,DATE AFTER EACH ? TERMINATE BY INPUTING 0,0,0
	?

EXHIBIT 3 (CONT.)

you type & CR	SSO#,CKL,DATE
The computer prints	?
Type entries with CR after each one. Wait for ? before typing each entry.	
End any batch by typing & CR	0,0,0
The computer prints	END POSTING CDD
The computer prints	READY
The computer is now ready for another program or BYE	

Notes: 1. If after you type RUN, the computer answers with "FILE IN USE" then someone else in your area is entering actual CDD's. Try again later. If you repeatedly receive the message "FILE IN USE," notify the designated person.

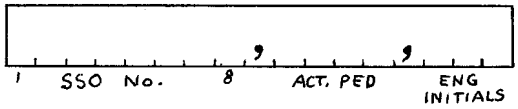
2. If you receive error messages such as "DATE IN ERROR" determine what is wrong and re-enter the record. This can and should be done immediately.

3. You must end your entry routine with "0,0,0" (zeros) and wait for the message "END POSTING CDD" "READY." Then and only then can you disconnect or go to another program. If you disconnect prior to these messages you will lock the program in "FILE IN USE." When this happens, notify the designated person **immediately!**

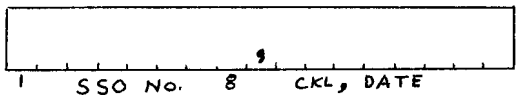
ENTER ACTUALS

If it is desired to create an input form from which to enter actuals, those shown below might be useful.

TO ENTER ACTUAL PED's



TO ENTER ACTUAL PID's & CDD's



CKL can be 1 or 2 characters
ACT PID is 4 characters
ACT CDD is 5 characters

EXHIBIT 4

INPUT JEOPARDIES

A program, called JEOP is used for entering manual jeopardies. These are always entered in conversational mode.

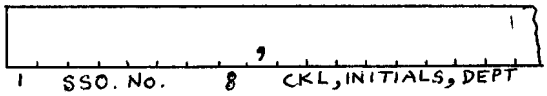
After the customary handshake, or if the computer has already been accessed and is ready for another program entry, proceed as follows:

INSTRUCTION	MESSAGE
The computer prints	READY
you type & CR	OLD JEOP
The computer prints	READY
you type & CR	RUN
The computer asks?	WHAT IS THE SSO#,CKL,INITIALS,DEPT?
you answer on same line & CR	1780123$4$,C,WJM,P
The computer asks? You answer & CR	ANOTHER?YES
The computer asks & you answer as above with another SSO. When there are no more jeopardies the question and answer would be & CR	ANOTHER?NO
The computer is now ready for another program or BYE	READY

INPUT JEOPARDIES

It may be desirable to create a form from which to enter jeopardies into the computer. The one shown below may prove useful for this purpose.

TO ENTER JEOPARDIES



CKL can be 1 or 2 characters
To place complete order (all CKL's) in jeopardy, enter 99 for CKL
INITIALS will be 2 or 3 characters, preferable 3
DEPARTMENT will be 1 character
M = Marketing
E = Engineering
P = Plant

EXHIBIT 5

CLEAR JEOPARDIES

A program, called CLJEOP is used for manually clearing jeopardies. These are always entered in conversational mode.

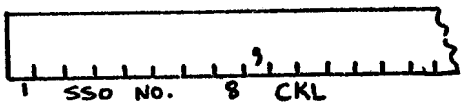
After the customary handshake, or if the computer has already been accessed and is ready for another program entry, proceed as follows:

INSTRUCTIONS	MESSAGES
The computer prints	IN AT XX:XX
or, if you had been using it	READY
you type & CR	OLD CLJEOP
The computer prints	READY
you type & CR	RUN
The computer prints	INPUT SSO#,CKL AFTER EACH? TERMINATE BY INPUTING O,O
you type & CR	SSO#,CKL
The computer prints	?
Type entries with CR after each one. Wait for ? before typing each entry. End any batch by typing & CR	O,O (zeros)
The computer prints	END POSTING
The computer prints	READY
The computer is now ready for another program or BYE	

CLEAR JEOPARDIES

It may be desirable to create a form from which to enter clear jeopardies into the computer. The one shown below may prove useful for this purpose.

TO CLEAR JEOPARDIES



CKL can be 1 or 2 characters
To clear a complete order (all CKL's) enter 99 for CKL.

EXHIBIT 6

REQUESTING FUNCTIONS DUE

Functions due for any specific date, or for more than one date, may be requested as needed. The program that provides this is called "FUNCDUE" and will provide PED's, PID's, PTD's, or CDD's. These can be requested for any RDO or PCS (including "(99)", or, if the ISC team member wants all locations, "ALL" may be requested.

There are two limitations when requesting functions due for a series of dates.

1. The span must not exceed 5 calendar days.
2. Any series must be in a single month.

   Separate the two dates of a series with a hyphen, for example: 0716-0717

   For PED, PID, or PTD enter 4 digits, for example: 0716, or 0713-0715

   For CDD add the last digit of the year, for example: 07160, or 07200-07240

Assuming you are in the computer and it is ready for your request, proceed as follows:

INSTRUCTION	MESSAGE
The computer prints, either	IN AT XX:XX
or, if you had been using it	READY
you type & CR	OLD FUNCDUE
The computer prints	READY
you type & CR	RUN
The computer asks	WHAT IS FUNCTION, LOCATION, DATES?
you type & CR	PID,HN,0720-0722
The computer prints the report. At the end of the report the computer prints	READY
The computer is now ready for another program or BYE	

FUNCDUE

OLD FUNCDUE

READY

RUN

WHAT IS FUNCTION, LOCATION, DATES?

PID, 11, 1005

PIDS DUE 1005-1005

SSO NUMBER	CIRCUIT NO.	CKL	PCO RDO	ENG	PED	PID	PTD	CDD
3115-0311	TT1674	B	11			1005	1012	01015
3866-1099	GDA38838 001	B	11			1005	1006	01109

READY

EXHIBIT 7

REQUESTING STATUS

Status reports should be requested as required. Also count of jeopardies or other analyses as they may be required.

INSTRUCTION	MESSAGE
The computer prints	READY
you type & CR	OLD STATUS
The computer prints	READY
you type & CR	RUN
The computer asks? You answer & CR	WHAT IS THE SSO#?1790123 4
The computer asks? You answer & CR	ANOTHER?YES
The computer asks & you answer as above. When no more status reports are wanted the question and answer would be & CR	ANOTHER?NO
The computer is now ready for another program or BYE	READY

STATUS OF SYSTEM SERVICE ORDER

SSO NUMBER	CKL	CUSTOMER NAME	CIRCUIT NO.
1770-6203A	A	TEX PWR.& LT.	10FP106

DALLAS CENTRAL RDO

FUNCTION	SCHED.	ACTUAL	INIT.
APPL. DATE		12-04	
DIST. DATE		12-05	
PRE-ENGRG	12-09	12-10	
PRE-INST.	12-16	12-16	
PLT.TEST	12-17		
DUE DATE	12-19		

BYE
OFF AT 10:12

EXHIBIT 8

REQUESTING "AUTOMATIC" PRINTOUTS

If the reports, which are automatically transmitted to the ISC team and to the RDO's and PCO's at night, are not received, they may be requested by the ISC team at any time up to 6 P.M. of the day they were due.

The requests for ISC listings vary slightly from those for RDO or PCO lists. Both are shown below.

1. Requesting ISC "Automatic" Printouts

INSTRUCTION	MESSAGE
The computer prints	IN AT XX:XX
or, if you had been using it	READY
you type & CR	OLD CALL3
The computer prints	READY
you type & CR	RUN
The computer prints the report and ends with	READY
The computer is now ready for another program or BYE	

2. Requesting an "Automatic" Printout for an RDO or PCO

INSTRUCTION	MESSAGE
The computer prints	IN AT XX:XX
or, if you had been using it	READY
you type & CR	OLD (See Note 1 Below)
The computer prints	READY
you type & CR	RUN
The computer prints the report and ends with	READY
The computer is now ready for another program or BYE	

NOTE 1: Type 3 digits, the first two are the PCO or RDO code. The third digit is your area code. Area Codes are:

St. Louis	1	Oklahoma	5
Arkansas	2	Dallas	6
Kansas City	3	Houston	7
Kansas	4	San Antonio	8

For example: If you entered OLD 714, you would get the printout for the Hays, Kansas, RDO.

EXHIBIT 9

REQUESTING ENGINEERING LOAD

It may be desirable to determine which Engineer has been assigned to each System Service Order. By using the program ENGLOAD and entering the Engineer's initials a printout of all SSO's assigned to that Engineer will be received.

To obtain this information, proceed as follows:

INSTRUCTION	MESSAGE
The computer prints	IN AT XX:XX
or, if you had been using it	READY
You type & CR	OLD ENGLOAD
The computer prints	READY
You type & CR	RUN
The computer prints	WHAT ARE THE ENGR. INITIALS?
You type & CR	WWA
The computer prints the report. At the end of the report the computer prints	READY
The computer is now ready for another program or BYE	

ENGINEERING LOAD

SSO'S ASSIGNED TO WWA

SSO NUMBER	CUSTOMER NAME	CIRCUIT NO.	PED	PID	CDD
1730-0275	PHIL PET	8FP105	0313	0320	0325
1730-0340	US POST OFC	8GP7	0316	0323	0326
1730-0347	US POST OFC	8GP6	0316	0323	0326
1730-1721	MC DOUGLAS	8FX5022	0324	0331	0403
3104-3621	AAL	FDA83151001	0325	0401	0404
3107-5056	KNOW	FP22127	0325	0401	0404

EXHIBIT 10

REQUESTING MISSED DUE DATE LIST

The missed due date report (MISDD) is available upon request to determine the orders that

(1) have not been completed and are past due and

(2) were completed after the customer due date.

This program may be called at any time during the month and will give the status up to date. However, the running time of this program is quite long and should be used with discretion.

The instructions for calling the program are as follows:

INSTRUCTION	MESSAGE
The computer prints	IN AT XX:XX
or, if you had been using it	READY
you type & CR	OLD MISDD
The computer prints	READY
You type & CR	RUN
The computer prints	FOR WHAT MONTH?
you type & CR	06 (month desired)
The computer begins a lengthy search of your file & prints the report & ends with	READY
The computer is now ready for another program or BYE	

MISSED DUE DATES

```
OLD MISDD
READY
RUN

WAIT
FOR WHAT MONTH?
08
SSO NOT YET COMPLETED

17200567   00827
17203192   00814
38225040   00803
38225041   00803

COMPLETED ORDERS

17405086   00805
17404863   00805
17200569   00821


READY
```

EXHIBIT 11

REMOVING CANCELED ORDERS

It is necessary periodically to remove canceled orders from the computer files. A program, DELCANCL, is used for this purpose.

The DELCANCL program should be run only upon ISC team concurrence approximately once a week, preferably on Monday morning. This timing allows all orders canceled the previous week to be included in the weekly file dump.

This program does not print a list of orders being removed from file.

Following are instructions and computer replies for running this program.

INSTRUCTION	MESSAGE
The computer prints	IN AT XX:XX
or, if you had been using it	READY
you type & CR	OLD DELCANCL
The computer prints	READY
you type & CR	RUN
The computer then searches the files and deletes all canceled orders. When complete it prints	READY
The computer is now ready for another program or BYE	

EXHIBIT 12

REMOVING COMPLETED ORDERS

The program "DELCOMP" is used to remove completed orders from file. This program requires that you specify the month for which you wish the completed orders removed. This program will print out a list of orders that are being removed from the file.

The ISC team may use this list to verify their records of completed orders.

This program should be run as soon as practical after the first of each month as the ISC team is through with the past months information.

"DELCOMP" should be run only upon ISC team concurrence. Instructions are as follows:

INSTRUCTION	MESSAGE
The computer prints	IN AT XX:XX
or, if you had been using it	READY
You type & CR	OLD DELCOMP
The computer prints	READY
you type & CR	RUN
The computer prints	FOR WHAT MONTH?
you type & CR	06 (month desired)
The computer prints list of orders being deleted and when complete prints	READY
The computer is now ready for another program or BYE	

EXHIBIT 13

REQUESTING DAILY FILE LISTING

This program is called NEWFILE and will provide a listing of the new orders entered the previous day only in file format. By running this program you will be able to keep you file records up to date by attaching this daily list to the complete file listing received via mail each Monday morning.

NEWFILE must be requested from the computer and is obtainable for only one day at a time.

INSTRUCTION	MESSAGE
The computer prints	IN AT XX:XX
or, if you had been using it	READY
You type & CR	OLD NEWFILE
The computer prints	READY
You type & CR	RUN
The computer lists the new orders and updates entered yesterday as shown on the next page, and ends with and	END OF FILE
The computer is now ready for another program or BYE	

DAILY FILE LISTING

```
OLD NEWFILE
READY
RUN

WAIT

FILE OF YESTERDAY'S ORDERS AND UPDATES

17101447     6FX941        0915 0930 01002 D H RHINO     0916    FS
    0918  0928                    000 002
17101447A    6FX941        0915 0930 01002 D H RHINO     0916    14
          0928
17101447B    6FX941        0915 0930 01002 D H RHINO     0916    14
          0928
17101448     6FX942        0915 0929 01001 TRAILERSALES  0916    LR
    0918  0928                    000 002
17101448A    6FX942        0915 0929 01001 TRAILERSALES  0916    11
          0928
17101448B    6FX942        0915 0929 01001 TRAILERSALES  0916    11
          0928
17305275     8FDA132       0909 1013 01015 FEDERALRESER  0916    XX
    0918  1006                    000 001
17305275B    8FDA132       0909 1013 01015 FEDERALRESER  0916    11
          1006
17101441   A 6FX939        0911 CANC CANCL SEARSROEBUCK  0914    HS
    CANC  CANC                    000 002U
17101441A  A 6FX939        0911 CANC CANCL SEARSROEBUCK  0914    15
          CANC                        U
17101441B  A 6FX939        0911 CANC CANCL SEARSROEBUCK  0914    15
          CANC                        U
31176187   A TT4931        0910 1026 01026 NEWSELETION   0915    XX
    0924  1015                    000 001U
END OF FILE

READY
```

EXHIBIT 14

REQUESTING THE MONTHLY ISC REPORT

This program is called ISCREPT and will provide the monthly ISC statistical report for the previous month. The report will be based on the completion reports in file, and the orders due during the previous month which do not have completion reports.

ISCREPT must be requested from the computer and should be run only on ISC Team approval. Since the running time on this program is quite long descretion should be used if requested more than once a month.

INSTRUCTION	MESSAGE
The computer prints	IN AT XX:XX
or, if you had been using it	READY
you type & CR	OLD ISCREPT
The computer prints	READY
you type & CR	RUN
The computer prints	FOR WHAT MONTH?
you type the previous month & CR	06
The computer starts the program processing and when complete prints the report and ends with	END OF ISC REPORT
and	READY
The computer is now ready for another program or BYE	

MONTHLY ISC REPORT

ISC REPORT ST. LOUIS AREA FOR MARCH, 1970

CONTROL	CASES	SVC LOC	MISSED	MISSED P/100
INTRA	120	175	10	5.7
INTER	21	38	3	7.9
TOTAL	141	213	13	6.0

OWN AREA	CASES	SVC LOC	MISSED	MISSED P/100
INTRA	120	175	6	3.4
INTER	55	53	2	3.8
LONG LINES	198	224	1	0.4
TOTAL	373	452	9	1.9

EXHIBIT 15

REQUESTING LIST OF JEOPARDIES

This program will provide a list of the old and new jeopardies in file as of the time of the request. The printout will provide the SSO number, the type of Jeopardy, and date of the jeopardy. Thus, this listing is abbreviated and should be most helpful as quick check of the jeopardy file.

INSTRUCTION	MESSAGE
The computer prints	IN A T XX:XX
or, if you had been using it	READY
you type & CR	OLD LISTJEOPS
The computer prints	READY
you type & CR	RUN
The computer prints the list of SSO's with jeopardies and when complete prints	END OF FILE
and	READY
You are now ready to go to another program or BYE	

LIST OF JEOPARDIES

```
OLD LISTJEOPS
READY
RUN

WAIT

LISTING OF JEOPARDY FILE

JEOP TYPES  1=MAN, 2=CDD, 4=PID, 5=PED, 6=DID

SSO# - CKL  TYPE JEOP DATE
----------  ---- ---------
15512990    6    0915
15512990C   4    0916
15512990E   4    0916
17101103B   4    0904
17303679D   2    0902
17303679E   2    0902
17500704A   4    0831
17500720    2    0907
17500788    2    0916
17500815A   4    0914
17500816A   4    0914
17500817A   4    0914
17500841    5    0916
17500841A   4    0916
17500843    6    0915
17500844    6    0915
17506047B   1    0827
17506048B   1    0827
17506058AL  1    0727
17506058EA  1    0727
17506062    2    0828
17506062A   2    0828
17506109    2    0827
17506109A   2    0827
17506109B   2    0827
17506110    2    0827
17506110A   2    0827
17506110B   2    0827

END OF FILE

READY
```

EXHIBIT 16
REQUESTING SLOTS

The SLOTS program is designed to key on one of the six dates (application, distribution, pre-engineering, pre-installation, plant test, customer due date) in the computer and provide a list of orders with the specified date in the requested date field. Since the program searches only the master record of each order there will be no mention of RDO, PCO, or CKL's. Thus, the program is useful primarily at the Area level.

INSTRUCTION	MESSAGE
The computer prints	IN AT XX:XX
or, if you had been using it	READY
you type & CR	OLD SLOTS
The computer prints	READY
you type & CR	RUN
The computer asks	WHAT IS SLOT, DATE?
you type & CR -	PTD,0928
The computer prints the list shown below and when finished prints	COMPLETED
and	READY
you are now ready to go to another program or BYE	

```
OLD SLOTS
READY
RUN

WAIT
WHAT IS SLOT,DATE?
PTD,0928


PTDS DUE 0928

SSO NUMBER  CIRCUIT NO.    ENG  APD  DID  PED  PID  PTD  CDD
----------  -----------    ---  ---  ---  ---  ---  ---  ---
1730-3651   LOCAL          NR   0731 0805 0810 0924 0928 00930
1730-4294   8FD183         DJM  0603 0611 0901 0921 0928 01001
1730-4385   8 FD 189       DJM  0617 0623 0901 0925 0928 01001
1730-4729   8FX3419        NR   0708 0710 0731 0813 0928 00930
1730-4730   8FX3420        NR   0708 0710 0731 0813 0928 00930
1730-4731   8FX3421        NR   0708 0710 0731 0813 0928 00930
1730-4732   8FX3422        NR   0708 0710 0731 0813 0928 00930
1730-4733   8FX3848        NR   0708 0714 0731 0813 0928 00930
1730-4734   8FX3849        NR   0708 0714 0731 0813 0928 00930
1730-4735   8FX3941        NR   0708 0714 0731 0813 0928 00930
1730-5139   8FX5396        PAZ  0903 0903 0909 0916 0928 00930
1730-5247   8GS94          JJM  0901 0902 0909 0922 0928 00930
1730-5280   8 FX 5400           0911 0911 0918 0924 0928 00930
1730-5290   8 FP 1037      NR   0911 0914 0918 0924 0928 00930
1730-5691   8FD156         DJM  1001 0622 0901 0921 0928 01001
3104-0225   FX4714         JHW  0723 0729 0831 0924 0928 01005
3104-0229   FX4773         CJR  0722 0731 0814 0924 0928 01005
3111-2043   WF3388         NR   0909 0914 0918 0924 0928 00930
3111-2046   WV7374              0914 0915 0918 0925 0928 00930
3111-2047   WV7376         NR   0914 0915 0918 0925 0928 00930
3120-7000   FP13200-001    HRM  0824 0824 0903 0921 0928 01009

COMPLETED

READY
```

EXHIBIT 17

REQUESTING COMPLETIONS FILED YESTERDAY

The program "LISTCOMPS" is available to obtain a listing of completions and serving link completions filed yesterday. The printout obtained is in file format and shows complete information on each completed record. See the example below.

INSTRUCTIONS	MESSAGE
The computer prints or if	IN AT XX:XX
you had been using it you	READY
type & CR	OLD LISTCOMPS
The computer prints you	READY
type & CR	RUN
The computer prints out the completions & serving Link completions filed yesterday when complete the computer prints	
and	END OF FILE
You are now ready to go to another program or BYE	READY

COMPLETIONS & SERVING LINK COMPLETIONS
FILED YESTERDAY

```
OLD LISTCOMPS
READY
RUN

LIST OF COMPLETIONS FILED YESTERDAY

17101437      6FX935          0909 0922 00924 CAMFIELDTIRE 0917      FS
    0914   0921  00924C0918    NER        000 002
31175913      FD7073          0731 0922 00925 JOURNAL COMM 0828      XX
    0904   0917  00923 0903    WB         000 001
31175932      FD7073          0828 0921 00923 JOURNAL COMM 0831      XX
    0904   0916  00922 0904    WB         000 001
31470147      FD17058         0819 0917 00922 REUTERS LTD  0824 D I XX
    0827   0911  00922 0831    WB         000 001
35110076      FP7516          0911 0924 00928 BARNESBROKE  0915      XX
    0916   0923  00924 0916    VP         000 001

LIST OF SERVING LINKS COMPLETED YESTERDAY

17101437A     6FX935          0909 0922 00924 CAMFIELDTIRE 0917      14
              0921  00924                      U
17101437B     6FX935          0909 0922 00924 CAMFIELDTIRE 0917      14
              0921  00924                      U
31175913A     FD7073          0731 0922 00925 JOURNAL COMM 0828      19
              0917  00923
31175932A     FD7073          0828 0921 00923 JOURNAL COMM 0831      14
              0916  00922
31470147A     FD17058         0819 0917 00922 REUTERS LTD  0824 D I 11
              0911  00922
35110076A     FP7516          0911 0924 00928 BARNESBROKE  0915      14
              0923  00924       0922

END OF FILE

READY
```

Exhibit 18

AUTOMATIC DISTRIBUTION OF FUNCTIONS TOMORROW

FUNCTIONS DUE 01028

OKLAHOMA CITY NORTH RDO

SSO NUMBER	CKL	CUSTOMER NAME	CIRCUIT NO.	FUNCTION
1750-0334	A	PHILLIPS PET	405-239-8980	PID
1750-0337A	A	PHILLIPS PET	405-436-5360	PID
3107-9883	D	LFM NEWS INC	TT-5175-55	PID
1750-6423D	A	LAWRENCE MER	9FX1756	PTD
3107-5132	F	UPI	FP22127	PTD
1770-8928	B	BRANIFF AIR	10FP126	CDD
3107-2251C	E	AP	TS 7653	CDD
3811-4477	A	DECCO	GT-22115-077	CDD
3811-4478	A	DECCO	GT-22115-078	CDD

NOTES:

1. THIS TYPE REPORT CAN BE OBTAINED AT ANY TIME FOR ANY DATE BY REQUEST.
2. EACH RDO RECEIVES ITS OWN LISTING, AREA RECEIVES LISTING OF ALL SSO's.
3. SIMILAR LISTING IS AUTOMATICALLY PRODUCED EACH DAY BY PED FUNCTION FOR ENGINEERING. PED FUNCTIONS DUE WILL INDICATE "AUTOMATIC DISTRIBUTION OF FUNCTIONS DUE THIS DAY".

Exhibit 19

AUTOMATIC BRING-UP OF "DATE-TO-FOLLOW"
AND "FURNISH DUE DATE" ORDERS

LIST OF DTF AND FDD ORDERS 12-16-69

SAN ANTONIO AREA

SSO NUMBER	CKL	CUSTOMER NAME	CIRCUIT NO.	DATE	DEPT	TYPE	CDD
3101-1224	A	STATE FARM	FP10272	12-18	BIR	DTF	12-31
3404-1380	F	HUMBLE OIL	FP10720	12-18	MKT	FDD	01-05

Exhibit 20

NEW AND OLD JEOPARDIES

NEW AND OLD JEOPARDIES AS OF 01001

NEW JEOPARDIES

SSO NUMBER	CKL	PCO RDO	CUSTOMER NAME	CIRCUIT NO.	IN JEOP	JEOP DATE	BY	CDD
1520-2418	A	17	JENKINS PUBL	LOCAL	PID	1001	-	01008
1730-5076		M1	MONSANTO	8 TT 212	PED	1001	-	01012
1730-5135	A	17	LEILA SHORT	8FX5405	PID	1001	-	01005
1730-5135	B	17	LEILA SHORT	8FX5405	PID	1001	-	01005
1730-5278		UD	ERNEST HAZEL	8 FX 774	CDD	1001	-	00929
1730-5278	A	22	ERNEST HAZEL	8 FX 774	CDD	1001	-	00929
3105-7714	A	12	BUNKER RAMO	FD14106-006	PID	1001	-	01007
3127-1138		M1	UPI	FD67500-075	PED	1001	-	01026
3205-3703		M1	ARINC WW	FX9065	CDD	1001	-	00929
3304-3703		M1	COMPUTER COM	FD44429	PED	1001	-	01013
3406-2666A	B	12	TRANSPORT MT	FP3125	PID	1001	-	01007
3513-6855		M1	ARINC-OCA	FD14082	CDD	1001	-	00929
3513-6855	A	18	ARINC-OCA	FD14082	CDD	1001	-	00929
3513-6934	A	21	MONSANTO	FP76021	CDD	1001	-	00929
3513-6934		M1	DAYBRITE	FP7782	PED	1001	-	01012
3601-4513		M1	UBFL	TT8435-075	PED	1001	-	01005

OLD JEOPARDIES

1730-3669		XA	FMHUMMEL	8FX5374	CDD	0909	-	CANCL
1730-3669	B	17	FMHUMMEL	8FX5374	CDD	0909	-	CANCL
1730-3699B		UD	ZEROMANUFCO	8FP1097	PED	0910	-	01027
1730-3699B	A	22	ZEROMANUFCO	8FP1097	PID	0915	-	01027
1730-3699B	B	22	ZEROMANUFCO	8FP1097	PID	0915	-	01027
1730-3884	A	19	SISTE OF MER	8FD179	PID	0923	-	01001
1730-4711B	B	17	WALKER+WM	8FX5 326	PID	0928	-	01015
1730-4712B	B	17	WALKER+WM	8FX5 327	PID	0928	-	01015
1730-5037		M1	SEARSROEBUCK	8TL272	PED	0921	-	01028
1730-5038		M1	SEARSROEBUCK	8TL273	PED	0921	-	01028
1730-5039		M1	SEARSROEBUCK	8TL274	PED	0921	-	01028
1730-5040		M1	SEARSROEBUCK	8TL380	PED	0921	-	01028
1730-5041		M1	SEARSROEBUCK	8TL381	PED	0921	-	01028
1730-5042		M1	SEARSROEBUCK	8TL382	PED	0921	-	01028
3104-0225B		M1	ALLIED CHEM	FX4714	MAN	0925	RJS-M	01005
3104-0225B	B	19	ALLIED CHEM	FX4714	MAN	0925	RJS-M	01005
3104-0229B		M1	ALLIED CHEM	FX4773	MAN	0925	RJS-M	01005
3104-0229B	B	19	ALLIED CHEM	FX4773	MAN	0925	RJS-M	01005

Exhibit 21

DISTRIBUTION OF INDIVIDUAL SSO DATA

SYSTEM SERVICE ORDERS DISTRIBUTED 01001

SSO NUMBER	CKL	PCO RDO	CUSTOMER NAME	CIRCUIT NO.	APD	PED	PID	PTD	CDD
1551-2736		TA	BAXTER LABS	DATAPHONE	0928	0929	1001	1002	01005
1551-2736	A	17	BAXTER LABS	DATAPHONE	0928		1001	1002	01005
1710-0721C		UD	CORP ENGR	6VM8	0928	1006	1109	1113	01117
1710-0721C	B	22	CORP ENGR	6VM8	0928		1109	1113	01117
1710-0721C	C	22	CORP ENGR	6VM8	0928		1109	1113	01117
1730-1329		99	MISSOURIBEST	8FX265	0930	1005	1102	1104	01106
1730-1329	B	12	MISSOURIBEST	8FX265	0930		1102	1104	01106
3304-3703		M1	COMPUTER COM	FD44429	0925	0930	1008	1013	01013
3304-3703	A	13	COMPUTER COM	FD44429	0925		1008	1013	01013
3601-4513		M1	UBFL	TT8435-075	0928	0929	1001	1002	01005
3601-4513	A	14	UBFL	TT8435-075	0928		1001	1002	01005
3601-4513	B	20	UBFL	TT8435-075	0928		1001	1002	01005
3863-5859		M1	DECCO	GDA91008-001	0924	0929	1007	1009	01013
3863-5859	A	19	DECCO	GDA91008-001	0924		1007	1009	01013
3863-5859	B	12	DECCO	GDA91008-001	0924		1007	1009	01013
1520-2550		TA	GENERAL MOVE	LOCAL	0914	CANC	CANC	CANC	CANCL
1520-2550	A	17	GENERAL MOVE	LOCAL	0914	CANC	CANC	CANC	CANCL
1710-1405B		99	EMERSON	8FX 5381	0828	0914	0918	0925	00930
1710-1405B	B	12	EMERSON	8FX 5381	0828		0918	0925	00930
1730-3699B		UD	ZEROMANUFCO	8FP1097	0910	0909	1019	1026	01027
1730-3699B	A	22	ZEROMANUFCO	8FP1097	0910		1019	1026	01027
1730-5321A		XA	KISTER BETTY	8FX4	0922	0925	1002	1005	01007
1730-5321A	A	17	KISTER BETTY	8FX4	0922		1002	1005	01007
1740-4847D		99	TWA	80TT5	0608	0702	1008	1030	01106
1740-4847D	B	12	TWA	80TT5	0608		1008	1030	01106
1740-4851D		99	TRANS WORLD	80 TT 6	0608	0702	0804	1030	01106
1740-4851D	B	12	TRANS WORLD	80 TT 6	0608		0804	1030	01106
3419-0040A		M1	MIDWEST STOC	FDA86984	0813	0821	0930	1002	01005
3419-0040A	A	12	MIDWEST STOC	FDA86984	0813		0930	1002	01005
3513-6633		M1	CURLEE CLOTH	B	0812	0911	1224	1228	10104
3513-6633	A	12	CURLEE CLOTH	B	0812		1224	1228	10104
3513-6633	B	12	CURLEE CLOTH	B	0812		1224	1228	10104
3513-6809A		M1	E D JONES	TT5056	0902	0910	0925	1002	01005
3513-6809A	A	12	E D JONES	TT5056	0902		0925	1002	01005

Exhibit 22

LIST OF COMPLETION REPORTS FILED YESTERDAY

LIST OF COMPLETION REPORTS FILED 00930

SSO NUMBER	CKL	PCO RDO	CUSTOMER NAME	CIRCUIT NO.	SCHD DATE	ACT DATE
1720-3192A		99	OZARKAIRLINE	7GP348	00814	00928
1730-5049A		M1	FINANCIAL DA	8FD204	00925	00925
1730-5137A		M1	FINANCIALDAT	8FD203	00925	00925
1730-5280		UA	YOUNG AMER	8 FX 5400	00930	00929
3616-1539			LOCKHEED AIR	FX81325-004	00928	00928
3616-1540		M1	LOCKHEED AIR	FX81325-503	00928	00928

LIST OF SERVING LINKS COMPLETED 00930

1720-3192A	A	22	OZARKAIRLINE	7GP348	00814	00928
1730-5049A	A	16	FINANCIAL DA	8FD204	00925	00925
1730-5137A	A	16	FINANCIALDAT	8FD203	00925	00925
1730-5280	A	19	YOUNG AMER	8 FX 5400	00930	00929
1730-5280	B	22	YOUNG AMER	8 FX 5400	00930	00929
3616-1539	A	16	LOCKHEED AIR	FX81325-004	00928	00928
3616-1540	A	16	LOCKHEED AIR	FX81325-503	00928	00928