

TRUNK OUTAGE RESULTS PLAN

CONTENTS	PAGE
1. GENERAL	1
2. OUTAGE RECORD PROCEDURES	3
3. REPORT PREPARATION PROCEDURES	5
4. REPORTING RESULTS	9
5. ORDERING INFORMATION	10

Figures

1. Outage Classification Flowchart	11
2. Trunk Outage Report—Form E-1025	13
3. Trunk Outage Log—Form E-4255	15
4. Trunk Outage Results Summary—Form E-3994	17
5. Inventory-Controlled Trunks Work Sheet	18

Tables

A. Local and Auxiliary Index Table	19
B. Toll Connecting Index Table	20
C. Intertoll Index Table	21

1. GENERAL

1.01 The purpose of the Trunk Outage Results Plan is to measure the availability of all types of message trunks used for customer-dialed and operator-handled traffic. This plan provides standard methods for recording message trunk outages to facilitate administration and summation of the outages.

1.02 This section is reissued to (1) change the name of the plan, (2) include intraentity trunks in the local trunk measurements, (3) exclude international trunks, (4) include auxiliary trunks, and (5) change the reporting procedure.

1.03 This section provides a common measurement plan with standard methods for measuring trunk availability. The plan includes all message trunks terminated in all types of central offices except international trunks as defined in 1.08.

1.04 Trunk outage performance is viewed from the standpoint of average normal business day (NBD, see 1.09) outage hours per trunk per month. All NBD outage time is included in the plan, regardless of the cause of the outage, responsibility for clearing an outage condition, or other activities related to the outage, with only two exceptions:

- (a) Outages of nine minutes or less duration where the trunk could have provided satisfactory service.
- (b) Outages due to Network Management as defined in 1.10(d).

1.05 Reporting of NBD outage time on a trunk group is the responsibility of the control or assigned office as defined in 1.12. The index, based on the average NBD outage hours per trunk per month, is an indicator of message Network Maintenance performed at all offices involved on the message network trunks covered by the summary, as well as of the overall coordination by the control office.

1.06 All message network trunks normally used to connect one subscriber to another subscriber, except international, are measured by the plan. Message trunks are classified by type and code in Section 795-400-100, Common Language Circuit Identification, Message Trunks.

NOTICE

Not for use or disclosure outside the Bell System except under written agreement

SECTION 660-400-010

1.07 For purposes of this plan, message trunks are indexed by the following types:

(1) **Local Trunks:**

- (a) **Intraoffice:** A trunk group provided to handle calls between subscribers served by the same switching machine
- (b) **Intermarker:** A trunk group that interconnects two No. 5 crossbar marker groups in the same building by intermarker group operation
- (c) **Interlocal:** Trunks interconnecting subscribers in different class 5 end offices, local tandems, or toll tandems (any class) for routing of local and/or multiple message unit traffic only.

(2) **Toll Connecting:** Trunks of this type interconnect end offices (class 5) and the intertoll direct distance dialing (DDD) network.

(3) **Intertoll Trunks:** Trunks of this type interconnect offices with an office class of 1 through 4 inclusive with or without switchboard arrangements multiplied (or bridged) at either end including manually operated toll or assistance switchboards for the routing of operator completed traffic.

(4) **Auxiliary Trunks:** Trunks of this type do not interconnect subscribers. They are, however, accessible by subscribers and are included in the Plan. These include; Directory Assistance, Information, Intercept, Time, Weather, and Repair Service.

1.08 Trunks excluded from the plan are:

(1) **International Trunks:** International trunk outage information is included in Section 660-630-010, International Service Results, and is therefore excluded from this plan. Trunks to Canada, Hawaii, Alaska, and Mexico **will be included** and are to be classified, as appropriate, local, toll connecting, intertoll, or auxiliary, as described in 1.07.

(2) **Miscellaneous:** Trunk groups provided for Network Administration, Maintenance and miscellaneous purposes are to be excluded.

Trunk groups in these categories are listed in Section 795-400-100, Issue 2, (4.16) and (4.17).

1.09 For the purpose of determining average outage hours per trunk, only those outages occurring during the normal business day (NBD) shall be counted. The NBD in local time is defined as follows for the various types of trunks:

TRUNK TYPE	DAYS(a)	NBD HOURS
Local	Mon-Fri	0900-2200(b)
Toll Connecting	Sun-Fri	0900-2200
Intertoll	Sun-Fri	0900-2200
Auxiliary	Sun-Fri	0900-2200

(a) Includes all holidays on the days specified.

(b) Local trunks may qualify for an abbreviated NBD, 0900-1800 hours, if 80% of the total days completion peg count occurs during 0900-1800 hours for a period of ten consecutive normal business days and the General Services Supervisor (or equivalent) authorizes the abbreviated NBD in writing.

1.10 All message trunk outages are classified and weighted into the component indexes using the "Outage Classification" flowchart as shown in Fig. 1.

(a) **Trouble (T) 80%:** All NBD outages on trunks not capable of satisfactory service should be classified T. Satisfactory service limits for message trunks are specified in the Bell System Practice Sections for transmission, noise, signaling, supervision, and billing. It includes all came clear (CC) outages where it has been determined that a failure has occurred on the assigned trunk equipment or facility; however, it excludes trunk troubles caused by common control switching equipment which are included under R/O.

(b) **Rearrangement (R) 10%:** Over 9-minute NBD outages caused by rearrangements of the assigned trunk equipment or facilities, where the trunk could have provided satisfactory service, should be classified as R.

(c) Routine and all other (R/O) 10%:

Over 9-minute NBD outages caused by routine and all other, (ie, rearrangements, held up, or trouble on common control switching equipment; private line make goods; stuck senders; test frames; DDD patches or trace and hold; alarm sending; traffic studies) where the trunk could have provided satisfactory service, should be classified R/O. Network Management outages are excluded and defined in 1.10(d). This category also includes test OK (TOK) outages where a trunk out over nine minutes is subsequently tested and no trouble is evident and there is no known cause.

(d) Generally, maintenance forces are not aware of Network Management outages and for this reason they are excluded from the plan. Network Management is defined as any action taken by Network Administration to directionalize or busy a trunk to improve service. Network Management does not include trunk outages to make studies or rearrangements.

1.11 Summary results are prepared for each reporting office and for higher organizational units per instructions in part 3. Summarized NBD outage hours, classified as trouble, rearrangement and routine/other, are used to develop a component index for each type of trunk; Local, Toll Connecting, Intertoll and Auxiliary. Component indexes are then combined into one Trunk Outage Index based on the portion of each type of trunk in the summary.

(a) The monthly Trunk Outage Index for each reporting office is used as a Performance Indicator in the Network Switching Performance Measurement Plans.

(b) Results are summarized up to and including district level on a monthly basis. Summary reports for all district level and higher organizational units are prepared quarterly. To accommodate the Centralized Results System (CRS) in its present stage of development, Area level data will be summarized and input to CRS on a monthly basis. Quarterly and annual reports for Area and Companies may be drawn from CRS when data is processed as described in part 4.

(c) District monthly component indexes under 90 are used to develop a weak spot indicator

for all higher organizational summaries. The weak spot indicator will be of particular interest to managers above the district level. In many divisions, areas, and companies the trunk outage index may be in a satisfactory range while certain index components in some districts are weak spots causing serious service problems.

1.12 Preparation and maintenance of the necessary records and summary reports required by the plan are the responsibility of the designated reporting office. Reporting offices are designated as follows:

(a) The control office is the reporting office for all trunks which have an assigned control office.

(b) When a control office has not been assigned, the reporting office is the originating office for 1-way trunks and the higher class or tandem office for 2-way trunks. The reporting office for 2-way trunks between offices of the same class must be assigned by the company, or (if more than one company is involved) by mutual agreement.

1.13 This plan measures the availability of trunks during the NBD as an indicator of trunk maintenance. It must not be used to determine trunk restoral priorities. Local management must be aware of the high traffic demand periods and must maintain a maximum number of trunks in service during this period. Management must also identify and appropriately administer particularly critical trunk groups even though all trunks of the same type are measured equally. In addition, this plan does not relieve maintenance forces of the responsibility for prompt action outside the NBD on major failures when, in the opinion of the control office, such action is necessary for the protection or restoration of service during times when the trunks are needed.

2. OUTAGE RECORD PROCEDURES

2.01 This plan provides two methods for recording information related to message trunk outages. Only one method should be standardized for a particular reporting location and used for the administration of the outage and preparation of the Trunk Outage Results Summary, Form E-3994.

SECTION 660-400-010

(a) Trunk Outage Report—Form E-1025, Fig. 2 (or equivalent)

(b) Trunk Outage Log—Form E-4255, Fig. 3

2.02 Testboard reporting locations should use the Trunk Outage Report, Form E-1025 (or equivalent). All other reporting locations should use the Trunk Outage Log, Form E-4255.

2.03 A trunk outage report is prepared or a trunk outage log entry is made by any office receiving a report of a trunk out of service or removing a trunk from service. If this office is not the reporting office as specified in 1.12, the report must be relayed to the reporting office which shall prepare an appropriate record of the outage. This would include reports on all trunks made busy automatically by carrier failures.

2.04 All trunks should be removed from service at a principal location. Outage records should be easily accessible at these locations so that trunks removed from service can be verified on the Log or Reports.

2.05 It is essential that controls be established to ensure that all outages are accounted for. This shall be accomplished by serially numbering Reports or Logs and referring ticket numbers and initials to other offices or records within the same office to facilitate follow-up procedures.

2.06 Reporting offices must retain a copy of the Reports or Logs for one year to support summary results.

2.07 Outage entries should be recorded using 24-hour clock time. Outage time starts at the time the trunk is known to be out of service; however, on trouble indications from bureaus, stuck senders, test frame alarms, etc, the outage time starts when the trunk has been identified. On a relayed report from traffic or another office, outage time starts at the time the trunk is not available to the customer. Outage time stops at the time the trunk meets all performance requirements and is restored to service.

2.08 Normally a separate trunk outage report is prepared or a trunk outage log entry is made for each trunk outage. However, multiple-trunk outages may be recorded on a single record when it can be determined that they are due to a common

cause. Regardless of trunks covered by a single record, the outage information must reflect the total NBD outage hours (see Fig. 2 or 3).

2.09 Description and use of Trunk Outage Report, Form E-1025: the Trunk Outage Report is in a ticket format, 3-1/2 inches by 6 inches. Space is provided on the front side to record most of the information required to maintain control of the outage as well as to collect detail data for preparation of summary reports. The reverse side of the form provides space for recording test results, a chronological record of the outage, and other pertinent data not provided for in other parts of the form. Facsimiles of the two sides of form E-1025 are shown in Fig. 2, along with a detailed description for its preparation.

2.10 The Trunk Outage Report Form E-1025 serves a double purpose. This form has a second number (E-5840) and can be used as a Trunk Equipment Trouble Ticket.

2.11 The duplicate form avoids, in most cases, having to generate two separate forms; one to report the outage time and a second one to report the trunk equipment trouble.

2.12 If the E-1025 and E-5840 forms are used as a dual-purpose form, the information relating to the trunk outage should be recorded in the Trunk Outage Log (E-4255). After completion of the Trunk Outage Log entries, the E-1025/E-5840 form should be filed with the other trouble tickets for logging and further analysis.

2.13 If a Trunk Outage Log (E-4255) is not used, separate Outage Reports (E-1025) and Trouble Tickets (E-5840) must be issued.

2.14 In general, all NBD outages will be reported for the month in which they occur. However, outages which occur in the latter part of a report month may not be cleared by the end of the report period and should be reported in the month in which restoral occurs. However, no outage time should be carried over more than one report period.

2.15 Description and use of Trunk Outage Log, Form E-4255: the Trunk Outage Log, 11 inches by 8-1/2 inches, provides space to maintain control of the outage and to collect detailed data for the preparation of summary results. Other records such as the Controlled Maintenance Trouble

Ticket, a Test and Inspection Work Order, a Trunk Rearrangement Order, etc, may also be required. A facsimile of form E-4255 is shown in Fig. 3, along with a detailed description for its preparation.

2.16 The Log should be closed out at the end of each report month. Start a new Log at the beginning of each report month and "Bring Forward" (BF) any entries for trunks which have not been restored. Show "BF" in the "Restored to Service" on previous months Log. The new Log would still show the actual date the trunk was removed from service and all NBD outage computations are computed from this date. Outages should be reported in the month in which restoral occurs. However, no outage time should be carried over more than one report period.

2.17 At the start of each day, a review should be made of all entries not closed out and verified against the trunks out of service.

3. REPORT PREPARATION PROCEDURES

3.01 Trunk Outage Results Summary, Form E-3994 (Fig. 4), is used for all summary reports. It is used by reporting offices to summarize detail outage data from trunk outage reports and trunk outage logs, it is used by district level and higher organizational units to summarize trunk outage results summaries prepared by lower organizational units.

3.02 The Trunk Outage Results Summary, Form E-3994, has been designed to facilitate mechanization. Columns are numbered so that any line-column combination, or box, can be referred to by a discrete number. These box numbers are used as line numbers when inputting data into a computer. (Example: 104 3052; 104 refers to line 1 column 04; the number 3052 is the number of local trunks in the summary.)

3.03 Monthly reports are prepared by each reporting office from the detail outage data. District monthly reports are prepared by summarizing trunk outage results summaries prepared by all reporting offices in the district. Area monthly reports for input to CRS are prepared by summarizing Trunk Outage Results Summaries prepared by each district.

3.04 Quarterly reports are prepared by each district by summarizing the three district

monthly reports. Quarterly reports for higher organizational units may be prepared in the same manner. Quarterly reports for areas and companies may be drawn from CRS.

3.05 All monthly reports cover the period from the 23rd of one month to the 22nd of the next month (ie, the January report covers December 23 through January 22). Quarterly reports cover three monthly reports.

3.06 Reporting Office monthly report: Summarize the NBD outage hours by outage category for each type of trunk from the trunk outage logs (form E-4255) and/or reports (form E-1025) for each reporting office. Inventory the total number of reportable message trunks from current sources. If a mechanized inventory is available, it can be used for this purpose provided trunks can be identified in the required categories (Local, Toll Connecting, Intertoll, and Auxiliary.) If a mechanized inventory is not available, an Inventory-Controlled Trunks Work Sheet (Fig. 5) can be reproduced locally for recording the inventory. This inventory work sheet will facilitate identifying and maintaining a record of the infrequently thought of groups, ie, route back, automatic message accounting (AMA) junctor, inward operator, EAS, etc. Following inventory of trunks and the summarization of outage hours, form E-3994 is completed as follows:

(a) Local Trunks:

(1) Enter the total number of local trunks in box 104 (line 1, column 04).

(2) Enter the total monthly NBD outage hours for each outage category in boxes 201, 202, and 203. Compute the sum of boxes 201, 202, and 203, and enter in box 204.

(3) Compute the average monthly NBD outage hours per trunk for each category by dividing box 201, 202, 203, and 204 by box 104. Enter the results, rounded to two decimal places, in boxes 301, 302, 303, and 304.

(4) Determine the index points for each category by applying the figure in boxes 301, 302, and 303, to Table A, Local Index Table. Enter the index points in boxes 401, 402, and 403.

SECTION 660-400-010

(5) Complete the trunk outage index for local trunks by adding boxes 401, 402, and 403, entering the total in box 504.

(b) Toll Connecting Trunks:

(1) Enter the total number of toll connecting trunks in box 604.

(2) Enter the total monthly NBD outage hours for each outage category in boxes 701, 702, and 703. Compute the sum of boxes 701, 702, and 703, and enter in box 704.

(3) Compute the average monthly NBD outage hours per trunk for each category by dividing box 701, 702, 703, and 704 by box 604. Enter the results, rounded to two decimal places, in boxes 801, 802, 803, and 804.

(4) Determine the index points for each category by applying the figures in boxes 801, 802, and 803, to Table B, Toll Connecting Index Table. Enter the index points in boxes 901, 902, and 903.

(5) Complete the trunk outage index for toll connecting trunks by adding boxes 901, 902, and 903, and entering the total in box 1004.

(c) Intertoll Trunks:

(1) Enter the total number of intertoll trunks in box 1104.

(2) Enter the total monthly NBD outage hours for each outage category in boxes 1201, 1202, and 1203. Compute the sum of boxes 1201, 1202, and 1203, and enter in box 1204.

(3) Compute the average monthly NBD outage hours per trunk for each category by dividing box 1201, 1202, 1203, and 1204 by box 1104. Enter the results, rounded to two decimal places, in boxes 1301, 1302, 1303, and 1304.

(4) Determine the index points for each category by applying the figures in boxes 1301, 1302, and 1303, to Table C, Intertoll Index Table. Enter the index points in boxes 1401, 1402, and 1403.

(5) Complete the trunk outage index for intertoll trunks by adding boxes 1401, 1402, and 1403, entering the total in box 1504.

(d) Auxiliary Trunks:

(1) Enter the total number of auxiliary trunks in box 1604.

(2) Enter the total monthly NBD outage hours for each outage category in boxes 1701, 1702, and 1703. Compute the sum of boxes 1701, 1702, and 1703, and enter in box 1704.

(3) Compute the average monthly NBD outage hours per trunk for each category by dividing box 1701, 1702, 1703, and 1704 by box 1604. Enter the results, rounded to two decimal places, in boxes 1801, 1802, 1803, and 1804.

(4) Determine the index points for each category by applying the figures in boxes 1801, 1802, and 1803 to the index table for Auxiliary Trunks, Table A. Enter the index points in boxes 1901, 1902, and 1903.

(5) Complete the trunk outage index for auxiliary trunks by adding boxes 1901, 1902, and 1903, entering the total in box 2004.

(e) All Trunks: (current period)

(1) Enter the number of each type of trunk in boxes 2105, 2106, 2107, and 2108, from boxes 104, 604, 1104, and 1604, respectively. Compute the sum of 2105, 2106, 2107, and 2108, and enter in 2109.

(2) Compute the portion of total trunks in each type by dividing each of the figures in boxes 2105, 2106, 2107, and 2108, by the figure in 2109. Enter the results, rounded to two decimal places, in boxes 2205, 2206, 2207, and 2208, respectively. The total of the figures in boxes 2205, 2206, 2207, and 2208 should be adjusted to equal 1.00.

(3) Enter the trunk outage index for each type of trunk in boxes 2305, 2306, 2307, and 2308, from boxes 504, 1004, 1504, and 2004, respectively.

(4) Compute the overall component for each type of trunk by multiplying the figures on line 22 by the figure in the same column on line 23. Enter the results rounded to two decimal places, on line 24 in the same column.

(5) Compute the trunk outage index for all trunks by adding the figures from boxes 2405, 2406, 2407, and 2408, and enter in box 2509, rounded to one decimal place.

(f) All Trunks (trend data)

(1) Enter the trunk outage index for each type of trunk and the composite trunk outage index in boxes 2605, 2606, 2607, 2608, and 2609, from boxes 504, 1004, 1504, 2004, and 2509, respectively.

(2) Enter the trunk outage index for the previous month for each type of trunk in boxes 2705, 2706, 2707, 2708, and 2709, from the trunk outage results summary prepared the previous month, boxes 2605, 2606, 2607, 2608, and 2609, respectively.

(3) Enter the trunk outage index for the second previous month for each type of trunk in boxes 2805, 2806, 2807, 2808, and 2809, from the trunk outage results summary prepared the previous month, boxes 2705, 2706, 2707, 2708, and 2709, respectively.

(4) Enter the trunk outage index for the third previous month for each type of trunk in boxes 2905, 2906, 2907, 2908, and 2909, from the trunk outage results summary prepared the previous month, boxes 2805, 2806, 2807, 2808, and 2809, respectively.

(g) Weak Spot Indicator:

(1) Lines 30 through 33 are not used by a reporting office.

(h) Reporting:

(1) Enter the month and year covered by the report on line 34.

(2) Enter the office or force group designation on line 35.

(3) Complete lines 36 through 41 per local instructions.

3.07 District monthly report: The district monthly Trunk Outage Results Summary, Form E-3994, is prepared by summarizing the reporting office reports. An intermediate level report can be prepared in a similar manner if required, with the district report prepared from the intermediate level reports. Complete the district monthly summary as follows:

(a) Compute the sum of all reporting office reports for the following boxes and enter the results in the same box of the district report:

104	201	202	203	204
604	701	702	703	704
1104	1201	1202	1203	1204
1604	1701	1702	1703	1704

(b) Complete the steps to derive the trunk outage index and trend data as follows:

Portion of Form	Para. 3.06
Local	(a) 3-5
Toll Connecting	(b) 3-5
Intertoll	(c) 3-5
Auxiliary	(d) 3-5
All Trunks	(e) 1-5
Trend Data	(f) 1-4

(c) Weak Spot Indicator:

(1) Enter on line 30 the number of entries greater than zero on line 22. (If a district has two types of trunks, the entry would be 2.)

(2) Enter on line 31 the number of district monthly component indexes under 90 from line 23. (If a district has two types of trunks and one is above 90 on line 23 and one is below 90, the entry would be 1.)

SECTION 660-400-010

- (3) Compute the % components under 90 by dividing line 31 by line 30 \times 100. Enter the result, rounded to one decimal place, on line 32.
- (4) Compute the weak spot index by subtracting line 32 from 100 and entering on line 33.

(d) Reporting:

- (1) Enter the month and year covered by the report on line 34.
- (2) Enter the district on line 36.
- (3) Complete lines 37 through 41 per local instructions.

3.08 Area Level monthly report: Monthly reports for all organizational units above district level are prepared by summarizing all reports prepared at the next lower organizational level. Complete form E-3994 as follows:

- (a) Compute the sum of all reports to be summarized for the following boxes, and enter the results in the same box of the higher level report:

104	201	202	203	204
604	701	702	703	704
1104	1201	1202	1203	1204
1604	1701	1702	1703	1704

- (b) Complete the steps to derive the trunk outage index and trend data as follows:

Portion of Form	Para. 3.06
Local	(a) 3-5
Toll Connecting	(b) 3-5
Intertoll	(c) 3-5
Auxiliary	(d) 3-5
All Trunks	(e) 1-5
Trend Data	(f) 1-4

(c) Weak Spot Indicator:

- (1) Compute the sum of all the reports to be summarized for line 30 and 31 entering the totals on the same line of the higher level report.
- (2) Complete the steps to derive the weak spot index as described under 3.07 (c) 3 and 4.

(d) Reporting:

- (1) Enter the month and year covered by the report on line 34.
- (2) Complete lines 37 through 41 per local instructions.

3.09 District quarterly report: The district quarterly report is prepared by summarizing three monthly district reports as follows:

- (a) Compute the sum of the three district monthly reports for the following boxes, divide each by three, and enter the results, rounded to the nearest whole number, in the same box of the district quarterly report:

104	201	202	203	204*
604	701	702	703	704*
1104	1201	1202	1203	1204*
1604	1701	1702	1703	1704

*Adjust rounding errors by adding column 01, 02, and 03.

- (b) Complete the steps to derive the trunk outage index and trend data as follows:

Portion of Form	Para. 3.06
Local	(a) 3-5
Toll Connecting	(b) 3-5
Intertoll	(c) 3-5
Auxiliary	(d) 3-5
All Trunks	(e) 1-5

Trend Data (f) 1-4*

*Use previous quarterly report.

(c) **Weak Spot Indicator:**

- (1) Compute the sum of the three district monthly reports for line 30 and 31, entering the totals on the same line of the quarterly report.
- (2) Complete the steps to derive the weak spot index as described under 3.07 (c) 3 and 4.

(d) **Reporting:**

- (1) Enter the quarter and year covered by the report on line 34.
- (2) Enter the district on line 36.
- (3) Complete lines 37 through 41 per local instructions.

3.10 Above district quarterly report: Quarterly reports for all organizational units above district level are prepared by summarizing all reports prepared at the next lower organizational level. Complete the quarterly form E-3994 as follows:

- (a) Compute the sum of all reports to be summarized for the following boxes, and enter the results in the same box of the higher level report:

104	201	202	203	204
604	701	702	703	704
1104	1201	1202	1203	1204
1604	1701	1702	1703	1704

- (b) Complete the steps to derive the trunk outage index and trend data as follows:

Portion of Form Para. 3.06

Local (a) 3-5

Toll Connecting (b) 3-5

Intertoll (c) 3-5

Auxiliary (d) 3-5

All Trunks (e) 1-5

Trend Data (f) 1-4*

*Use previous quarterly report

(c) **Weak Spot Indicator:**

- (1) Compute the sum of all the reports to be summarized for line 30 and 31 entering the totals on the same line of the higher level report.
- (2) Complete the steps to derive the weak spot index as described under 3.07 (c) 3 and 4.

(d) **Reporting:**

- (1) Enter the quarter and year covered by the report on line 34.
- (2) Complete lines 37 through 41 per local instructions.

3.11 Area and Company annual reports: Annual reports for areas and companies are prepared by summarizing the four quarterly reports for the same organizational level. This will be done by the Centralized Results System (CRS) and can be drawn from that data base. (Contact your Company CRS Coordinator for instructions.)

4. REPORTING RESULTS

4.01 Area and Company results are to be entered into the CRS. Because of differences in CRS procedures, results should be entered according to the instructions of your Company CRS Coordinator.

4.02 The CRS system currently in operation will accept data only for area level and above. Each Company summarizes data to the area level on a monthly basis for input to CRS. CRS will produce monthly, quarterly, and annual reports based on this data. Areas identified within each Company are listed in "Centralized Results System Data Base and Codes" and can be obtained from the Company CRS Coordinator. Area level data

SECTION 660-400-010

should be inputted to CRS no later than the 15th of the month following the report month.

4.03 When the revised CRS is implemented, data will be accepted on a reporting office basis and CRS will summarize the data on a monthly, quarterly, and annual basis for office level and above. The availability of this feature will be announced in each company as it is implemented.

4.04 Quarterly and annual reports on an Area and Company basis will no longer be published by AT&T but results will be monitored through CRS as needed.

4.06 Detailed data and summary reports must be retained at least one year to substantiate the reported results.

5. ORDERING INFORMATION

5.01 Forms are available in pads of 25 forms each. Forms should be ordered in multiples of 25. Orders should be worded as follows:

(Quantity) Form E-3994 (11-77)

(Quantity) Form E-4255 (11-77)

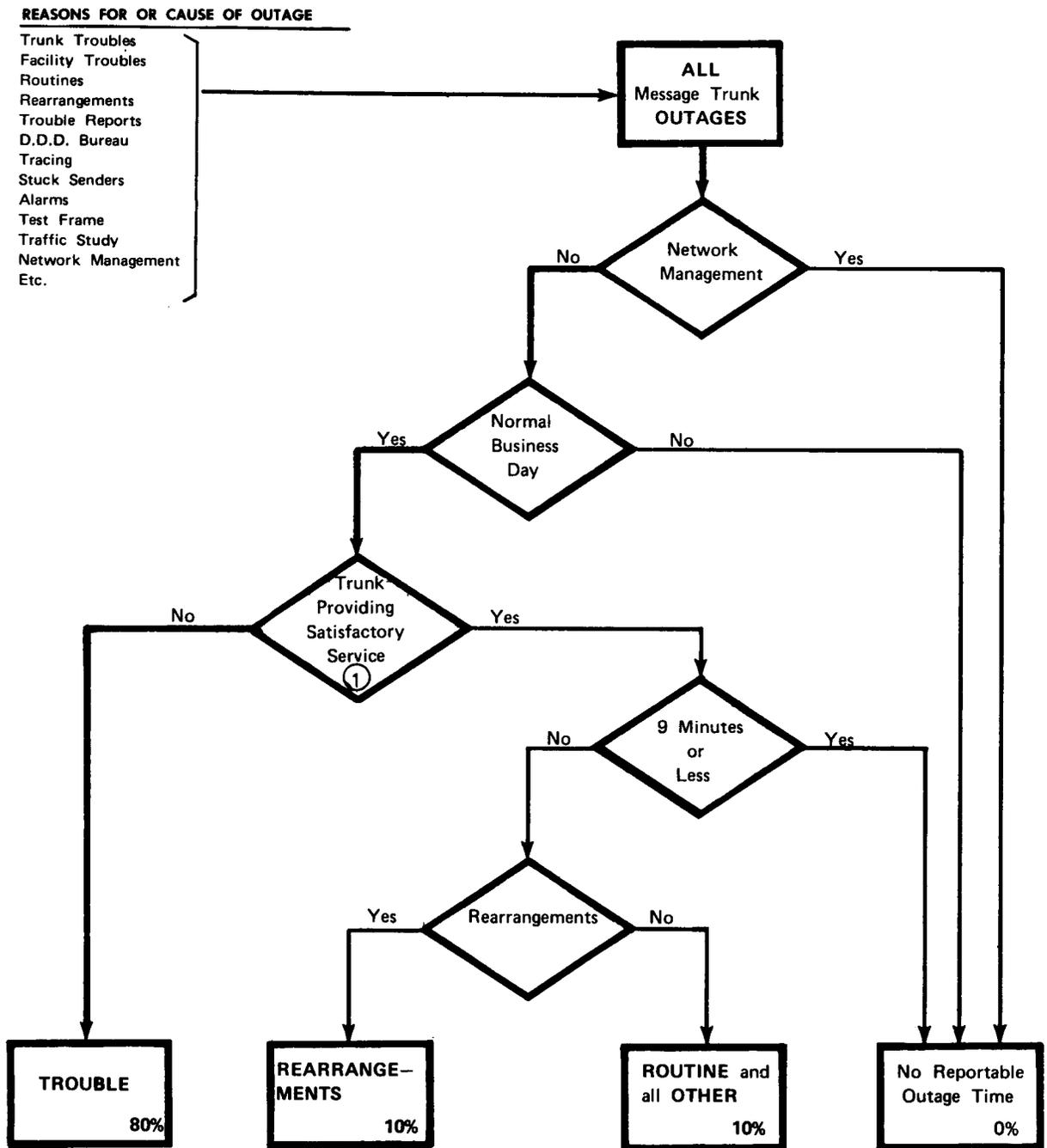
Trunk outage reports are available in prenumbered packages of 500 (1-500). Orders should be worded as follows:

(Quantity) Form E-1025 (1-76)

TORP—FLOWCHART

OUTAGE CLASSIFICATION

Message Network Trunks



① Satisfactory service limits as specified in the BSPs (transmission, noise, pulsing, signaling, and billing)

Fig. 1—Outage Classification Flowchart

TRUNK OUTAGE REPORT, FORM E-1025
EQUIPMENT TROUBLE TICKET, FORM E-5840
SAMPLE FORM AND PREPARATION INSTRUCTIONS

PRINTED IN U.S.A.
BSP 010-300-010
BSP 660-400-010

OUT OF SERVICE
CHECK IF EQUIPMENT IN TROUBLE IS
CAUSING SERVICE OUTAGE

E-5840
E-1025A
(1-76)

EQUIPMENT TROUBLE TICKET
TRUNK OUTAGE REPORT

SERIAL NO.

SERIAL NUMBERS ARE PRE-PRINTED TO FACILITATE TICKET ACCOUNTABILITY.

TRUNK OR EQUIPMENT IDENTIFICATION

ENTER TRUNK NUMBER & OFFICE OR EQUIPMENT IDENTIFICATION.

REPORTED FROM BY

ENTER LOCATION FROM WHICH THE REPORT IS RECEIVED AND NAME OR INITIALS OF PERSON MAKING THE REPORT.

RECEIVED BY, DATE, TIME

ENTER THE NAME OR INITIALS OF THE PERSON RECEIVING THE REPORT ENTER DATE AND TIME. (24 HR. CLOCK TIME)

OUTAGE/TROUBLE REPORTED

ENTER A CONCISE DESCRIPTION OF THE OUTAGE CONDITION REPORTED.

REMOVED-REFERRED-RESTORED

ENTER NAME OR INITIALS OF THE PERSON REMOVING, REFERRING OR RESTORING THE OUTAGE. ENTER TIME ON 24-HR. CLOCK BASIS

TROUBLE FOUND

ENTER BRIEF DESCRIPTION OF FOUND TROUBLES.

MAKE GOOD

IF SERVICE IS MADE GOOD, ENTER DETAILS HERE.

NUMBER OF TRUNKS/CIRCUITS THIS REPORT

ENTER THE NUMBER OF TRUNKS/CIRCUITS, COVERED BY THIS REPORT

IT, TC, LOCAL, AUX.

CHECK THE APPROPRIATE BOX TO INDICATE THE TYPE OF TRUNK:
IT = INTERTOLL
TC = TOLL CONNECTING
LOCAL
AUX = AUXILIARY

SERIAL NO.

REF. SERIAL NO.

TO/FROM

TRUNK OR EQUIPMENT IDENTIFICATION

CIRCUIT, CHANNEL, GROUP OR SYSTEM

REPORTED

FROM BY

RECEIVED

BY DATE TIME

OUTAGE/TROUBLE REPORTED

REMOVED FROM SERVICE

BY DATE TIME

REFERRED

BY TO TIME

RESTORED TO SERVICE

BY DATE TIME

TROUBLE FOUND

MAKE GOOD

BY TIME ON

NO. OF TRUNKS THIS REPORT

TYPE OF TRUNK				OUTAGE CATEGORY			TOTAL HRS.		TENTHS
IT	TC	LOCAL	AUX.	TBLE.	REARR.	R-O	1	2	3
1					2				

MEMO

CHECK IF REPORT CONTAINS NO REPORTABLE N.B.D. OUTAGE TIME

REF. SERIAL NO.

ENTER SERIAL NO. OF TICKET AT OFFICE TO WHICH REPORT IS RELAYED OR REFERRED OR FROM WHICH REPORT IS RELAYED.

CTL, NC

CHECK "CTL" IF OFFICE IS THE CONTROL OFFICE OR THE DESIGNATED REPORTING OFFICE OTHERWISE CHECK "NC"

ANALYSIS DATA

FOR LOCAL USE AS SPECIFIED BY COMPANY OR LOCAL INSTRUCTIONS.

THE LOWER PORTION OF THE FORM TO BE PREPARED BY THE OFFICE RESPONSIBLE FOR REPORTING RESULTS OF THE TRUNK(S)/CIRCUIT(S) COVERED BY THE REPORT

N.B.D. OUTAGE HOURS/TRUNK/CIRCUIT

ENTER THE N.B.D. OUTAGE HOURS PER TRUNK/CIRCUIT, COVERED BY THIS REPORT IN HOURS AND TENTHS OF HOURS (ie, 2 HRS. 15 MIN.; ENTER 2.3)

0-8 MIN. = .1 HR. 33-38 MIN. = .6 HR.
9-14 MIN. = .2 HR. 39-44 MIN. = .7 HR.
15-20 MIN. = .3 HR. 45-50 MIN. = .8 HR.
21-26 MIN. = .4 HR. 51-56 MIN. = .9 HR.
27-32 MIN. = .5 HR. 57-62 MIN. = 1.0 HR.

N.B.D. OUTAGE TIME

ENTER THE TOTAL N.B.D. OUTAGE HOURS COVERED BY THIS REPORT. (ie. 6 TRUNKS AT 2.3 HRS. PER TRUNK: ENTER 13.8)

LOG

THE LOG PROVIDES SPACE FOR MAINTAINING A CHRONOLOGICAL RECORD OF ACTIVITIES RELATED TO THE OUTAGE. THIS SPACE MAY BE USED FOR ANY PERTINENT INFORMATION NOT PROVIDED FOR ON THE FRONT SIDE OF THE FORM. IF ADDITIONAL SPACE IS NECESSARY, ATTACH SUPPLEMENTAL TICKET, FORM E-4221

Fig. 2—Trunk Outage Report—Form E-1025

PRINTED IN USA
BSP 660-400-010

TRUNK OUTAGE RESULTS SUMMARY

FORM E-3994
(11-77)

		01	02	03	04	
TYPE		TROUBLES	REARRANGEMENTS	ROUTINE-OTHER	TOTAL	
1	LOCAL	NUMBER OF TRUNKS				
2		N.B.D. OUTAGE HOURS PER MONTH				
3		AVG. OUTAGE HRS. (2+104) ①				
4		WEIGHTED COMPONENT (USE TABLE A)				
5		TRUNK OUTAGE INDEX (401+402+403)				
6	TOLL CONNECTING	NUMBER OF TRUNKS				
7		N.B.D. OUTAGE HOURS PER MONTH				
8		AVG. OUTAGE HRS. (7+604)				
9		WEIGHTED COMPONENT (USE TABLE B)				
10		TRUNK OUTAGE INDEX (901+902+903)				
11	INTERTOLL	NUMBER OF TRUNKS				
12		N.B.D. OUTAGE HOURS PER MONTH				
13		AVG. OUTAGE HRS. (12+1104)				
14		WEIGHTED COMPONENT (USE TABLE C)				
15		TRUNK OUTAGE INDEX (1401+1402+1403)				
16	AUXILIARY	NUMBER OF TRUNKS				
17		N.B.D. OUTAGE HOURS PER MONTH				
18		AVG. OUTAGE HRS. (17+1604)				
19		WEIGHTED COMPONENT (USE TABLE A)				
20		TRUNK OUTAGE INDEX (1901+1902+1903)				
		05	06	07	08	09
		LOCAL	TOLL CONNECTING	INTERTOLL	AUXILIARY	TOTAL
21	ALL TRUNKS CURRENT PERIOD	NUMBER OF TRUNKS (104, 604, 1104, 1604)				
22		PORTION OF TOTAL TRKS. (21+2109)				1.00
23		TRUNK OUTAGE INDEX (504, 1004, 1504, 2004)				
24		OVERALL COMPONENT (22 X 23)				
25		TRUNK OUTAGE INDEX (2405+2406+2407+2408)				
26	ALL TRUNKS TREND DATA	CURRENT PERIOD (504, 1004, 1504, 2004, 2509)				
27		PREVIOUS PERIOD (PREVIOUS REPORT, LINE 26)				
28		2ND PREVIOUS PERIOD (PREVIOUS REPORT, LINE 27)				
29		3RD PREVIOUS PERIOD (PREVIOUS REPORT, LINE 28)				
DISTRICT SUMMARIES AND ABOVE						
30	WEAKSPOT INDICATOR	DIST. COMPONENTS-TOTAL ②				
31		DIST. COMPONENTS UNDER 90 ③				
32		% COMPONENTS UNDER 90 (L31÷L30 X 100)				
33		WEAK SPOT INDEX (100 - L32)				
34	REPORTING	PERIOD				
35		OFFICE				
36		DISTRICT				
37		DIVISION				
38		AREA				
39		COMPANY				
40		PREPARED BY				
41	APPROVED BY					

- ① EXAMPLE: 104 IS LINE 1 COLUMN 04
DIST. MONTHLY ONLY ALL OTHERS
- ② #>0 ON L22 TOTAL L30
- ③ #>0<90 ON L23 TOTAL L31

Fig. 4—Trunk Outage Results Summary—Form E-3994

TABLE A

LOCAL AND AUXILIARY INDEX TABLE

(Av. Outage Hrs/Trk/Mo.)

TROUBLE		REARRANGEMENTS		ROUTINE-OTHER	
Av. Outage Hrs.	Index Points	Av. Outage Hrs.	Index Points	Av. Outage Hrs.	Index Points
0	80	0	10	0	10
.03	79.9	.02	9.9	.01	9.9
.05	79.8	.03	9.8	.02	9.8
.08	79.7	.05	9.7	.03	9.7
.11	79.6	.17	9.6	.09	9.6
.14	79.5	.29	9.5	.16	9.5
.16	79.4	.41	9.4	.22	9.4
.19	79.3	.52	9.3	.29	9.3
.22	79.2	.64	9.2	.35	9.2
.24	79.1	.76	9.1	.42	9.1
.27	79	.88	9	.48	9
.3	78.9	.9	8.8	.49	8.8
.32	78.8	.92	8.6	.5	8.6
.35	78.7	.95	8.4	.52	8.4
.38	78.6	.97	8.2	.53	8.2
.41	78.5	.99	8	.54	8
.43	78.4	1.01	7.8	.55	7.8
.46	78.3	1.03	7.6	.56	7.6
.49	78.2	1.06	7.4	.58	7.4
.51	78.1	1.08	7.2	.59	7.2
.54	78	1.1	7	.6	7
.57	77.9	1.12	6.8	.61	6.8
.6	77.8	1.14	6.6	.62	6.6
.62	77.7	1.17	6.4	.64	6.4
.65	77.6	1.19	6.2	.65	6.2
.7	77.5	1.21	6	.66	6
.74	77.4	1.23	5.8	.67	5.8
.79	77.3	1.25	5.6	.68	5.6
.84	77.2	1.28	5.4	.7	5.4
.89	77.1	1.3	5.2	.71	5.2
.93	77	1.32	5	.72	5
1.03	76.8	1.34	4.8	.73	4.8
1.12	76.6	1.36	4.6	.74	4.6
1.22	76.4	1.39	4.4	.76	4.4
1.31	76.2	1.41	4.2	.77	4.2
1.41	76	1.43	4	.78	4
1.64	75.5	1.45	3.8	.79	3.8
1.88	75	1.47	3.6	.8	3.6
2.12	74.5	1.5	3.4	.82	3.4
2.35	74	1.52	3.2	.83	3.2
2.59	73.5	1.54	3	.84	3
2.83	73	1.56	2.8	.85	2.8
3.06	72.5	1.58	2.6	.86	2.6
3.3	72	1.61	2.4	.88	2.4
3.4	70	1.63	2.2	.89	2.2
3.51	68	1.65	2	.9	2
3.71	64	1.67	1.8	.91	1.8
3.92	60	1.69	1.6	.92	1.6
4.12	56	1.72	1.4	.94	1.4
4.43	50	1.74	1.2	.95	1.2
4.64	46	1.76	1	.96	1
4.95	40	1.94	.8	1.06	.8
5.16	36	2.11	.6	1.15	.6
5.47	30	2.29	.4	1.25	.4
5.67	26	2.46	.2	1.34	.2
5.98	20	2.64	0	1.44	0
6.19	16				
6.6	8				
8.25	4				
9.9	0				

NOTE: If the measurement is between the Av. Outage Hrs. figures, the number of Index Points corresponding to the next higher Av. Outage Hrs. should be used (lower index points).

TABLE B
TOLL CONNECTING INDEX TABLE
(Av. Outage Hrs/Trk/Mo.)

TROUBLE		REARRANGEMENTS		ROUTINE-OTHER	
Av. Outage Hrs.	Index Points	Av. Outage Hrs.	Index Points	Av. Outage Hrs.	Index Points
.01	80	0	10	0	10
.05	79.9	.01	9.9	.02	9.9
.08	79.8	.03	9.8	.03	9.8
.12	79.7	.04	9.7	.05	9.7
.16	79.6	.18	9.6	.15	9.6
.2	79.5	.31	9.5	.24	9.5
.23	79.4	.45	9.4	.34	9.4
.27	79.3	.59	9.3	.43	9.3
.31	79.2	.73	9.2	.53	9.2
.34	79.1	.86	9.1	.62	9.1
.38	79	1	9	.72	9
.42	78.9	1.02	8.8	.74	8.8
.45	78.8	1.05	8.6	.76	8.6
.49	78.7	1.07	8.4	.77	8.4
.53	78.6	1.1	8.2	.79	8.2
.57	78.5	1.12	8	.81	8
.6	78.4	1.15	7.8	.83	7.8
.64	78.3	1.17	7.6	.85	7.6
.68	78.2	1.2	7.4	.86	7.4
.71	78.1	1.22	7.2	.88	7.2
.75	78	1.25	7	.9	7
.79	77.9	1.27	6.8	.92	6.8
.83	77.8	1.3	6.6	.94	6.6
.86	77.7	1.32	6.4	.95	6.4
.9	77.6	1.35	6.2	.97	6.2
.99	77.5	1.37	6	.99	6
1.08	77.4	1.4	5.8	1.01	5.8
1.17	77.3	1.42	5.6	1.03	5.6
1.26	77.2	1.45	5.4	1.04	5.4
1.35	77.1	1.47	5.2	1.06	5.2
1.44	77	1.5	5	1.08	5
1.61	76.8	1.52	4.8	1.1	4.8
1.79	76.6	1.55	4.6	1.12	4.6
1.97	76.4	1.57	4.4	1.13	4.4
2.15	76.2	1.6	4.2	1.15	4.2
2.33	76	1.62	4	1.17	4
2.77	75.5	1.65	3.8	1.19	3.8
3.22	75	1.67	3.6	1.21	3.6
3.67	74.5	1.7	3.4	1.22	3.4
4.11	74	1.72	3.2	1.24	3.2
4.56	73.5	1.75	3	1.26	3
5.01	73	1.77	2.8	1.28	2.8
5.45	72.5	1.8	2.6	1.3	2.6
5.9	72	1.82	2.4	1.31	2.4
6.08	70	1.85	2.2	1.33	2.2
6.27	68	1.87	2	1.35	2
6.64	64	1.9	1.8	1.37	1.8
7	60	1.92	1.6	1.39	1.6
7.37	56	1.95	1.4	1.4	1.4
7.92	50	1.97	1.2	1.42	1.2
8.29	46	2	1	1.44	1
8.84	40	2.2	.8	1.58	.8
9.21	36	2.4	.6	1.73	.6
9.77	30	2.6	.4	1.87	.4
10.13	26	2.8	.2	2.02	.2
10.69	20	3	0	2.16	0
11.79	8				
14.73	4				
17.68	0				

NOTE: If the measurement is between the Av. Outage Hrs. figures, the number of Index Points corresponding to the next higher Av. Outage Hrs. should be used (lower index points).

TABLE C
INTERTOLL INDEX TABLE
(Av. Outage Hrs/Trk/Mo.)

TROUBLE		REARRANGEMENTS		ROUTINE-OTHER	
Av. Outage Hrs.	Index Points	Av. Outage Hrs.	Index Points	Av. Outage Hrs.	Index Points
0	80	0	10	0	10
.02	79.9	.03	9.9	.03	9.9
.04	79.8	.05	9.8	.06	9.8
.06	79.7	.08	9.7	.09	9.7
.08	79.6	.21	9.6	.17	9.6
.1	79.5	.34	9.5	.24	9.5
.12	79.4	.47	9.4	.32	9.4
.14	79.3	.61	9.3	.4	9.3
.16	79.2	.74	9.2	.48	9.2
.18	79.1	.87	9.1	.55	9.1
.2	79	1	9	.63	9
.22	78.9	1.02	8.8	.65	8.8
.24	78.8	1.05	8.6	.66	8.6
.26	78.7	1.07	8.4	.68	8.4
.28	78.6	1.1	8.2	.69	8.2
.3	78.5	1.12	8	.71	8
.32	78.4	1.15	7.8	.72	7.8
.34	78.3	1.17	7.6	.74	7.6
.36	78.2	1.2	7.4	.76	7.4
.38	78.1	1.22	7.2	.77	7.2
.4	78	1.25	7	.79	7
.42	77.9	1.27	6.8	.8	6.8
.44	77.8	1.3	6.6	.82	6.6
.46	77.7	1.32	6.4	.83	6.4
.48	77.6	1.35	6.2	.85	6.2
.55	77.5	1.37	6	.87	6
.62	77.4	1.4	5.8	.88	5.8
.7	77.3	1.42	5.6	.9	5.6
.77	77.2	1.45	5.4	.91	5.4
.84	77.1	1.47	5.2	.93	5.2
.91	77	1.5	5	.94	5
1.05	76.8	1.52	4.8	.96	4.8
1.2	76.6	1.55	4.6	.98	4.6
1.34	76.4	1.57	4.4	.99	4.4
1.48	76.2	1.6	4.2	1.01	4.2
1.63	76	1.62	4	1.02	4
1.99	75.5	1.65	3.8	1.04	3.8
2.35	75	1.67	3.6	1.06	3.6
2.71	74.5	1.7	3.4	1.07	3.4
3.06	74	1.72	3.2	1.09	3.2
3.42	73.5	1.75	3	1.1	3
3.78	73	1.77	2.8	1.12	2.8
4.14	72.5	1.8	2.6	1.13	2.6
4.5	72	1.82	2.4	1.15	2.4
4.64	70	1.85	2.2	1.17	2.2
4.78	68	1.87	2	1.18	2
5.06	64	1.9	1.8	1.2	1.8
5.34	60	1.92	1.6	1.21	1.6
5.62	56	1.95	1.4	1.23	1.4
6.05	50	1.97	1.2	1.24	1.2
6.33	46	2	1	1.26	1
6.75	40	2.2	.8	1.39	.8
7.03	36	2.4	.6	1.51	.6
7.45	30	2.6	.4	1.64	.4
7.73	26	2.8	.2	1.76	.2
8.16	20	3	0	1.89	0
8.86	10				
9	8				
11.25	4				
13.5	0				

NOTE: If the measurement is between the Av. Outage Hrs. figures, the number of Index Points corresponding to the next higher Av. Outage Hrs. should be used (lower index points).