

**INTERCOMPANY SERVICES COORDINATION PLAN**  
**SERVICE ANALYSIS REPORTS**

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**1. GENERAL**

**1.01** Service Analysis Requests (SAR-1) and Service Analysis Reports (SAR-2 for Special Exchange Services or SAR-3 for Private Line Services) are designed to obtain information on the quality of service being furnished to a customer.

**1.02** The flow of Service Analysis Requests and Reports is covered in detail in Sections 010-520-101 and 010-520-102. Therefore, this section will cover only the format to be used and the information to be supplied as required by the Intercompany Services Coordination (ISC) Plan.

**2. SERVICE ANALYSIS REQUEST (SAR-1)**

**2.01** The SAR-1 format (see Fig. 1 and 2) is designed to be used for teletypewriter transmission. In message preparation and transmittal, each item will be identified with its mnemonic codes followed by the appropriate information.

**2.02** The following should be used as a guide for the preparation of the SAR-1:

**TO** — Enter TWX number or Official Message Network Code, name of addressee, and office name or city.

**ORG** — (Originator): Enter TWX number or Official Message Network Code, name of ISC Plant Control Team member (originator), office name or city, and date of issue.

**SAR-1** — (Service Analysis Request): Enter 4-digit code identifying originating ISC Team, followed by serial number assigned by the originator to this request.

**CCN** — (Customer Contracting Name): Enter name and address of the contracting customer.

**CS** — (Type of Service): Enter type or class of service.

**LOC** — (Locations to Report): For Special Exchange Services, enter the customer name, address, and telephone number of each served point for which reporting will be required. For Private Line Services, enter contracting customer name, network, circuit(s), served points, etc., as appropriate, for which reporting will be required.

**SAR-2** — (Special Exchange Services) or SAR-3 (Private Line Services)—(Service Analysis Report required): Enter duration, dates, or frequency (daily, weekly, etc.).

**PCO** — (Plant Control Office): Enter name and TWX number or Official Message Network Code of person to whom SAR-2 or SAR-3 should be sent.

**RMK** — (Remarks): Enter explanation of necessity for study and any additional requirements for information not provided for elsewhere on this format.

### 3. SERVICE ANALYSIS REPORT (SAR-2) — SPECIAL EXCHANGE SERVICES

**3.01** Service Analysis Report SAR-2 provides a format for sending trouble report data by 4-row TWX to the originator of a Service Analysis Request (SAR-1). To ensure uniformity, Form E-5068A, "Service Analysis Report SAR-2" (see Fig. 3) should be used as a guide in assembling trouble report data in the proper format preparatory to transmittal. Since the format is designed to permit either manual or machine summarization, it is essential that it be followed exactly.

**3.02** The SAR-2 format is designed to fit an 80-column punched card (see Fig. 4). Certain control codes are used to permit simultaneous reception of teletypewriter hard copy with the punched card. These control codes are:

- > (shift key period) punch start.
- < (shift key comma) punch stop.
- = (shift key dash) end numeric.

These codes must *not* be used anywhere else in the message.

**3.03** Fourteen trouble reports, two lines each, can be entered on each Form E-5068A. Numeric information for each report should be posted to the 42 blocks in the first line, as described in 3.04. To produce a valid card, *exactly* 42 numeric characters must be transmitted. Thirty-seven blocks are available on the second line for text describing nature of trouble, disposition, or other pertinent information. All or any part of the 37 blocks may be used.

**3.04** Preparation of Form E-5068A is as follows:

(a) **Heading:**

- TO — Enter 4-row TWX number or Official Message Network Code, name of addressee, and city or office name.
- ORG — Enter 4-row TWX number or Official Message Network Code, name of originator, and city or office name.
- REPORT PERIOD — Enter report period covered by the report.

(b) **Columnar Data for Each Trouble Report:**

CONTROL SAR CODE — Enter originating ISC Team 4-digit identification code and 3-digit serial number.

DATE — Enter month and date expressed in four digits. The first two digits show the month, 01 to 12; the last two digits show the date, 01 to 31.

TIME — Enter time received expressed in four digits. The first two digits show the hours of the day on a 24-hour basis, 00 to 24; the last two digits, the minutes 00 to 59.

CALLING NUMBER — Enter calling customer's 10-digit number (NPA or SAC\* code, prefix, and number).

CALLED NUMBER — Enter called customer's 10-digit number (NPA or SAC\* code, prefix, and number).

TYPE REPT — Enter type of report. Use code number shown on Form E-4736 (see Fig. 5).

TBL DISP — Enter trouble disposition code. Use code number shown on Form E-4736.

OUTAGE TIME — Enter outage time expressed in three digits. The first two digits express the hours 00 to 99; the last digit, tenths of an hour 1 to 9.

\*Special Area Code

Text describing nature of trouble, disposition, or other pertinent information should be entered on the line following numeric data for each trouble report. All or any part of the available 37 blocks may be used.

**3.05** The following notes apply to the preparation of punched tape for the transmittal of data entered on Form E-5068A. A hard-copy sample, marked to show teletypewriter functions required for on-line card punching, is shown in Fig. 6. This format is to be followed on all SAR-2 reports.

**Note 1:** The three control codes (>punch start, <punch stop, and = end numeric) control the business machine (card punch). Each individual trouble report transmission must include these three control codes.

**Note 2:** A double space is required between each of the eight columns of data "control SAR code" through "outage time," to improve hard-copy readability. Double spaces will appear on the teletypewriter hard copy but not on the punched card.

**Note 3:** At least ten teletypewriter function operations must occur between trouble reports to give the card punch sufficient time to set up for the next card. Therefore, eight "erase" functions must be transmitted following the "carriage return" and "line feed" at the end of each trouble report.

#### 4. SERVICE ANALYSIS REPORT (SAR-3)—PRIVATE LINE SERVICES

**4.01** The forwarding of trouble data on Switched Services Networks is covered in detail in the 310-200-000 series of Bell System Practices. Requests for analysis data on Switched Services Network should be made to the Network Control Office or the Plant Network Manager.

**4.02** In many cases, part or all of the data required for Private Line Service analysis will be available on computer printouts such as Long Lines Form P-2071, "Customer Detailed Trouble Data" (see Fig. 7). The format of the SAR-3 is designed to facilitate direct transcription to, or comparison with, data on Form P-2071. It may also be used for manual analysis or for mechanized analysis using a punched card.

**4.03** To ensure uniformity, Form E-5068B, "Service Analysis Report SAR-3" (see Fig. 8) should be used as a guide in assembling trouble report data in the proper format preparatory to transmittal.

**4.04** Preparation of Form E-5068B is as follows:

(a) **Heading** — Same as for SAR-2 except the Control SAR Code is included in the heading rather than in the body of the message.

**CIRCUIT** — Enter the prefix number(s), prefix letters, basic serial numbers, and suffix or sub-numbers of the circuit. Spaces not applicable must be filled in with a dash (-).

**DATE** — Enter month and date expressed in four digits. The first two digits show the month, 01 to 12; the last two digits show the date, 01 to 31.

**TROUBLE CODE** — Enter the alphanumeric trouble classification code from Form E-4642 (Telephone) or Form E-4644 (Telegraph) as shown in Fig. 9.

**DURATION TIME** — Enter outage time in hours and minutes.

**LOC PLANT CLEARING TIME** — Enter clearing time in hours and minutes.

(b) **Text** — Enter nature, disposition, and *location* of trouble and any other pertinent information on the line following numeric data for each report. All or any part of the available 29 blocks may be used.

**4.05** The following notes apply to the preparation of punched tape for the transmittal of data entered on Form E-5068B. A hard-copy sample, marked to show teletypewriter functions for on-line card punching, is shown in Fig. 10. This format is to be followed on all SAR-3 reports.

**Note 1:** The three control codes (>punch start, <punch stop, and = end numeric) control the business machine (card punch). Each individual trouble report transmission must include these three control codes. These codes must *not* be used anywhere else in the message.

**SECTION 010-520-116**

**Note 2:** A double space is required between each of the five columns of "Circuit" through "Local Plant Clearing Time" to improve hard-copy readability. Double spaces will appear on the teletypewriter hard copy, but not on a punched card.

**Note 3:** At least ten teletypewriter function operations must occur between trouble reports to give the card punch sufficient time to set up for the next card. Therefore, eight

"erase" functions must be transmitted following the "carriage return" and "line feed" at the end of each trouble report.

**Note 4:** Do *not* use a "line feed" function following the "Local Plant Clearing Time." For comparison with, or transcription to, Form P-2071 or a similar printout, SAR-3 is designed so that all information regarding each trouble report is contained on a single line of teletypewriter hard copy.

## SERVICE ANALYSIS REQUEST (SAR-1)

TO (TWX Number) (Name) (City or Office)  
 ORG (TWX Number) (Name) (City or Office) (Date)  
 SAR-1 (ISC Team Code and Serial Number)  
 CCN (Name and Address of Contracting Customer)  
 CS (Type or Class of Service)  
 LOC (Customer Locations to be Included in Report)  
 SAR-2 (Reports Required — Dates)  
 (SAR-3)  
 PCO (Name and TWX Number to Whom Reports Should be Sent)  
 RMK (Necessity and Additional Information)

**Fig. 1 — Format to be Used in Transmitting Service Analysis Request SAR-1**

TO 510-222-9121 H I JAY HOMETOWN, ILL  
 TO 510-285-4815 J KELM BIG CITY, IOWA  
 ORG 710-571-0370 A B SEE ANYWHERE, NY 9-5-65  
 SAR-1 0230001  
 CCN NATIONAL DATA CORPORATION  
 CS DATASPEED  
 LOC LIVESTOCK NATIONAL BANK, 210 NORTH SW, BIG CITY, IOWA 515-482-0440  
 HOME BANK, 1145 HENRY ST, ANYWHERE, NY TEL 212-643-9700  
 FARMERS TRUST CO, 1901 K ST, HOMETOWN, ILL TEL 312-222-9160  
 SAR-2 REPORTS REQUIRED WEEKS ENDING SEPT 14, 21, 28 AND OCT 5, 1965  
 ONLY  
 PCO A B SEE ANYWHERE, NY TWX 710-571-0370 (TEL 212-394-4930)  
 RMK FORMAL COMPLAINT OF EXCESSIVE ERRORS AND OUTAGE TIME,  
 CONFIRM ALL OUTAGE TIMES WITH CUSTOMER  
 END

**Fig. 2 — Sample of Service Analysis Request SAR-1**



SERVICE ANALYSIS REPORT SAR-2

FORM E-5068A  
1-66

TO \_\_\_\_\_ ORG \_\_\_\_\_  
 TWX NO 710-571-0370 NAME A B See TWX NO 510-222-9121 NAME H. J. Jay  
 CITY-STATE Anywhere, N. Y. CITY-STATE Hometown, Ill.  
 REPORT PERIOD Week Ending 9-14-65 DATE 9-16-65

SAR CONTROL CODE	DATE	TIME	CALLING NUMBER	CALLED NUMBER	TYPE REPT	TBL DISP	OUTAGE TIME	
> 02300010909132331222291605155710370					03	07	005	=
CUTOFF	MIDDLE	3	CALLS	CLRO	OUT			<
> 02300010911120131222291605126439700					03	07	011	=
ERROR	BURSTS	BOTH	WAYS	CLRD	OUT			<
> 023000109121430515571037031222291600					03	07	005	=
CUTOFF	3	CALLS	1100-1130	CLRD	OUT			<
> 02300010913121031222291602126439700					03	07	023	=
ERRORS	1130-1150	DATA	SETS	CK	OK			<
> 02300010914132031222291602126439700					03	09	045	=
ERRORS	1220-1250	DATA	SPEEDS	CK	OK			<
>								=
>								=
>								=
>								=
>								=
>								=
>								=
>								=
>								=
>								=
>								=
>								=
>								=

Fig. 3 — Sample of Service Analysis Report SAR-2





FORM E-4736 (9-65 REV 1)

### CLASSIFICATION CODES AND DEFINITIONS FOR THE MANUAL HANDLING OF TROUBLE REPORTS

	CODE	TYPES OF REPORTS
Originating Call	1 CC - NDT  CAN'T CALL NO DIAL TONE	Does not hear Central Office Dial Tone, Can't Raise the Operator, or receives Slow Dial Tone.
Originating Call	2 CC - OTH  CAN'T CALL OTHER	Hears Central Office Dial Tone but Cannot Originate or Complete a Call. Includes reports of Cannot Call on circuits that do not furnish dial tone.
Originating or Terminating Call	3 TRAN-NOISE  TRANSMISSION NOISE	Reports Poor Transmission, Noise, or Interference.
Terminating Call	4 CBC  CAN'T BE CALLED	Reports Can't Be Called, e.g., Bell Doesn't Ring, Bell Rings and Can't Answer, Bell Rings No Answer, Bell Rings After Answer, Bell Rings and Can't Trip Ring, Called For Wrong Number, or Gets Busy Incoming.
	5 MEM SVCS FAIL.  MEMORY SERVICES FAILURE	Reports trouble with Customer Calling Services features, such as Speed Calling, Call Transfer, Three-way Calling, Call Waiting, Dial Pickup, Dial Hold, or Camp-On/Busy of an Automatic Switching System
	6 DATA FAIL.  DATA FAILURE	Reports Can't Send Data or Can't Receive Data. Includes reports on Automatic Call Unit failures:
	7 PHY COND  PHYSICAL CONDITION	Reports Worn, Damaged, Loose, or Missing Equipment, etc.
	8 MISC  MISCELLANEOUS	Any type trouble report not included in the other codes.

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(a) Front

### DISPOSITION CODES

<p><b>1 STATION SET</b> All troubles in the station set used for any class of service. It includes Teletypewriter station sets, Call Directors, station sets associated with Speakerphones, PICTUREPHONES, PBXs, or OrderTurrets, and Mobile Telephones. The subset of the two-piece telephone set is considered a part of the station set. Troubles on that portion of a coin telephone involving coin apparatus are included in Other Station Equipment.</p> <p><b>2 OTHER STATION EQUIPMENT</b> All troubles in station equipment other than the station set such as Data Sets, BELLBOY Receiver Units, Auxiliary Signaling Equipment, Key Telephone Units, Key Cabinets or Turrets, Supplementary Station Equipment, Switchboards, Switching Equipment, Booths, and Coin Apparatus.</p> <p><b>3 STATION WIRING</b> All troubles in Drop and Block Wire, Station Protectors, Inside Wire, Inside Wiring Cable used in lieu of Inside Wire, and Ground Wires.</p> <p><b>4 OUTSIDE PLANT</b> All troubles in Cable, Cable Terminals, Amplifiers, Line Wire, Load Coils and their protection; Concentrators, Carrier Equipment, Base and Coast Stations in General Mobile Service and BELLBOY Personal Signaling Service located in places other than central offices.</p> <p><b>5 CENTRAL OFFICE</b> All troubles in central office equipment. Includes troubles in central office equipment permanently associated with customer lines, and troubles in equipment common to customer lines.</p>	<p><b>6 CUSTOMER ACTION</b> All troubles caused by customer action or error affecting Company-owned and customer-owned equipment or attachments. Also includes trouble on customer-owned equipment or attachments.</p> <p><b>60 RECEIVER OFF HOOK</b> All troubles caused by customers leaving the receiver off the hook.</p> <p><b>7 TEST OK</b> Trouble reports are closed as Test OK when the trouble-causing condition cannot be determined and the report is not referred to the central office or outside forces for further investigation. Includes central office and concentrator overload conditions.</p> <p><b>8 FOUND OK-IN</b> All trouble reports Found OK by central office forces, and not dispatched to outside forces. Reports where there is substantial evidence that the report was caused by lockup conditions, equipment off normal, etc. are classified to the central office.</p> <p><b>9 FOUND OK-OUT</b> All trouble reports Found OK by outside forces. Reports that were Found OK by central office forces before dispatching are included.</p> <p><b>0 REFERRED-OUT</b> All trouble reports referred to other forces or agencies for further handling. This does not apply to trouble reports on TWX and WATS Classes of Service when the trouble locates in near-end plant (Station Apparatus, Access Lines, and Serving Central Office).</p>
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### CAUSE CODES

<p><b>1 MAN MADE-TELEPHONE EMPLOYEE</b> Trouble was caused by a Telephone Company employee or overlooked by an employee on a previous report.</p> <p><b>2 MAN MADE-OTHER</b> Trouble was caused by other than Telephone Company employees—intentionally or unintentionally. Includes troubles caused by Western Electric employees.</p> <p><b>3 PLANT OR EQUIPMENT</b> Trouble was caused by overload, failure or breakdown of plant or equipment— independent of any direct human action.</p>	<p><b>4 WEATHER</b> Trouble was caused by weather conditions. Includes troubles caused by a tree being blown into the route of cables or wires.</p> <p><b>5 OTHER</b> Covers cases not included in codes 1 thru 4.</p> <p><b>6 UNKNOWN</b> Covers cases where it is impossible to determine the cause of a trouble or trouble report.</p>
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(b) Back

Fig. 5 — Classifications and Codes for Use on SAR-2 Reports (Special Exchange Services)

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TO      510-571-0370  A B SEE      ANYWHERE, NY
ORG     510-222-9121  H I JAY     HOMETOWN, ILL  9-16-65

SAR-2   WEEK ENDING 9-14-65

>0230001 0909 1323 3122229160 5155710370 03 07 005=
CUTOFF MIDDLE 3 CALLS CLRD OUT<
>0230001 0911 1201 3122229160 2126439700 03 07 011=
ERROR BURSTS BOTH WAYS CLRD OUT<
>0230001 0912 1430 5155710370 3122229160 03 07 005=
CUTOFF 3 CALLS 1100-1130-CLRD OUT<
>0230001 0913 1210 3122229160 2126439700 03 07 023=
ERRORS 1130-1150 DATA SETS CK OK<
>0230001 0914 1320 3122229160 2126439700 03 09 045=
ERRORS 1220-1250 DATASPEEDS CK OK<

END
    
```

(a) Received on 35-Type TWX Machine (Hard Copy)

```

>0230001>> 0909 >> 1323 >> 3122229160 >> 5155710370 >> 03 >> 07 >> 005= ←≡↓
CUTOFF> MIDDLE> 3> CALLS> CLRD> OUT<←≡+++++++
>0230001 >> 0911 >> 1201 >> 3122229160 >> 2126439700 >> 03 >> 07 >> 011= ←≡↓
ERROR> BURSTS> BOTH> WAYS> CLRD> OUT<←≡+++++++
>0230001 >> 0912 >> 1430 >> 5155710370 >> 3122229160 >> 03 >> 07 >> 005= ←≡↓
CUTOFF> 3> CALLS> 1100-1130> CLRD> OUT<←≡+++++++
>0230001>> 0913 >> 1210 >> 3122229160 >> 2126439700 >> 03 >> 07 >> 023= ←≡↓
ERRORS> 1140-1150> DATA> SETS> CK> OK<←≡+++++++
>0230001 >> 0914>> 1320 >> 3122229160 >> 2126439700 >> 03 >> 09 >> 045= ←≡↓
ERRORS> 1220-1250> DATASPEEDS> CK> OK<←≡+++++++

END ←≡+++++++
    
```

(b) Body of Same Message Showing Teletypewriter Functions Required for On-Line Card Punching

Teletypewriter Functions Legend:      Teletypewriter Printout of Card Punch Control Codes:

← Carriage Return	> Punch Start
≡ Line Feed	< Punch Stop
↓ Erase (letters)	= End Numeric
> Space	

Fig. 6 — Sample of Service Analysis Report SAR-2

PRIVATE SERVICE RESULTS  
CUSTOMER DETAILED TROUBLE DATA

CIRCUIT NUMBER	DATE OF TROUBLE	DPI CODE	DISTRICT WITH REPORT	DISTRICT WITH TROUBLE	TROUBLE ANALYSIS CODE	DURATION TIME		LOCAL PLANT CLEAR'G TIME		RE-PORT CODE	STUDY CODE	TROUBLE	DESCRIPTION
						HRS.	MIN.	HRS.	MIN.				
-DP -16689- 1	02-05	3614	16	00	IS15	00	10	00	00	1	000	OG PST WEST CXR TRBL KGSVLE	
-DP -17600-	01-15	5361	07	00	STC11	00	15	00	00	2	000		
	01-18	5361	07	07	SC13	03	59	03	55	2	000		
	01-18	5374	26	99	R000	00	10	00	00	2	000		
	01-19	5374	26	99	R000	00	17	00	00	2	000		
	01-22	5361	07	99	R000	01	14	00	00	2	000		
	01-22	5374	26	26	ST11	00	15	00	15	2	000		
	01-25	4118	65	99	R000	00	10	00	00	1	200	DEAD CUST ACT	
	01-26	5374	26	26	ST18	01	07	01	05	2	000		
	01-26	5374	26	26	ST18	00	48	00	47	2	000		
	01-30	5374	26	26	ST11	02	00	01	50	2	000		
	02-04	5374	26	26	ST11	03	15	00	00	1	000	STN C DEAD LP OPN TB CBLE	
	02-04	5374	26	26	ST11	03	00	00	20	1	600	NO LITE STA 6 3 AVE BO LP	
	02-04	5374	26	26	ST11	03	00	00	00	2	000		
	02-04	5374	26	26	ST11	03	00	00	00	1	000	NSY FM PX GAME CLEAR	
	02-04	5374	26	26	ST11	03	00	00	00	2	000		
	02-09	5374	26	26	ST11	03	00	00	00	2	000	NSY TCC OK CY TLSA	
	02-09	5374	26	26	ST11	03	00	00	00	2	000	NSY CC	
	02-09	5374	26	26	ST11	03	00	00	00	2	000		
-DP -18703-	01-22	7317	7	00	T12	00	20	00	00	1	000		
-DP -19839-	02-04	4118	04	00	T12	00	20	00	00	1	000		
-FP -20150-	02-04	7317	99	00	R000	00	20	00	00	1	000		
	02-04	5374	26	99	R000	00	20	00	00	1	000		
-FP -21860-	01-15	7317	23	00	T12	00	20	00	00	1	000		
-FP -22436-	01-15	7317	23	99	R000	00	35	00	00	1	000		
	01-15	0120	22	00	T12	00	15	00	00	1	000		
-FP -23928-	01-15	A520	54	99	R000	02	30	00	00	1	000		
	01-18	7317	99	00	CC11	00	38	00	00	1	000		
	01-18	4118	65	99	R000	00	10	00	00	2	100		
	01-26	4118	65	64	LF00	00	47	00	25	2	100		
-FX - 2433-	01-17	7317	31	00	STC12	00	13	00	00	1	000		
-FX -18220-	01-26	2116	46	00	T12	01	00	00	00	1	000		
	01-26	2116	46	00	IS32	00	44	00	00	1	000		

EXHIBIT (NETWORK MANAGER DATA)  
THE LAST 4 WEEKS TROUBLE REPORTS BY CIRCUIT  
FOR ALL CIRCUITS IN A NETWORK.  
MAILED TO NETWORK MANAGER WEEKLY.

X TPH TGH CUSTOMER AMER AIRLINES 4 PAGE 3  
X NON-MLTY MLTY NETWORK CONTROL OFFICE DPI 7317  
01-15-65 CIRCUIT CONTROL OFFICE NEW YORK  
02-11-65 CIRCUIT CONTROL OFFICE DPI 7317

Fig. 7 — Form P-2071



BSP E12.150.11 **TROUBLE CLASSIFICATION CARD** E-4642  
**TELEPHONE** (9-58)

**UNSECTIONALIZED TROUBLES**  
 (SECT. TO = ✓)

**T TEST OK**  
 T11 INOPERATIVE  
 T12 SIGNALING  
 T13 TRANSMISSION  
 T14 NOISE - CROSSTALK  
 T15 HOWL - ECHO  
 T16 OTHER

**NC NONCLASSIFIED**

**CC CAME CLEAR**  
 CC11 INOPERATIVE  
 CC12 SIGNALING  
 CC13 TRANSMISSION  
 CC14 NOISE - CROSSTALK  
 CC15 HOWL - ECHO  
 CC16 OTHER

**STC TROUBLES**  
 (SECT. TO = STC)

**STC SERVING TEST CENTER**  
 STC11 REPTR. & ECHO SUPP.  
 STC12 SIGNALING EQPT.  
 STC13 CUT., SW. & CONTR. ARNGTS.  
 STC14 SAGE - DDT & DDR  
 STC15 SAGE - CUG & DF TRK. EQPT.  
 STC16 PLANT ACTIVITIES  
 STC17 OTHER  
 STC18 CAME CLEAR

**INTER STC TROUBLES**  
 (SECT. TO = IS)

**IS INTER STC TROUBLES**

IS11 REPTR. & ECHO SUPP.  
 IS12 CARR. CHAN. - CABLE  
 IS13 CARR. CHAN. - OPEN WIRE  
 IS14 CARR. CHAN. - COAXIAL  
 IS15 CARR. CHAN. - RADIO  
 IS16 VOICE CONDR. - CABLE  
 IS17 VOICE CONDR. - OPEN WIRE  
 IS18 SIGNALING EQPT.  
 IS19 PLANT ACTIVITIES & OTHER  
 IS31 TRBLS. LOCATED OUTSIDE TERR.  
 IS32 CAME CLEAR

**IN TERR.**

**REFERRED OUT TROUBLES**  
 (SECT. TO = RO)

**RO REFERRED OUT**  
 RO11 \_\_\_\_\_  
 RO12 \_\_\_\_\_  
 RO13 \_\_\_\_\_  
 RO14 \_\_\_\_\_  
 RO15 \_\_\_\_\_  
 RO16 \_\_\_\_\_

**SERVING LINK TROUBLES**  
 (SECT. TO = CUST. LOC. DIST.)

**SC CUSTOMER ACTION**  
 SC11 OPERATION  
 SC12 MAINTENANCE  
 SC13 OTHER

**ICO INDEPENDENT COMPANY**

**ST STATION APPARATUS**  
 ST11 TELEPHONE INSTR.  
 ST12 PBX  
 ST13 TELCO. TAPE RECORDER  
 ST14 RADIO TRNSMTR. & RECVR  
 ST15 PULSE CONVTR. EQPT..  
 ST16 SIGNALING EQPT.  
 ST17 CARR. TERM.  
 ST18 COMM. TERM. & MISC. EQPT.  
 ST19 OTHER  
 ST21 SAGE - DDT & DDR  
 ST22 SAGE - CUG & DF TRK. EQPT.

**TP TOLL TYPE FACILITIES**  
 TP11 REPTR. & ECHO SUPP.  
 TP12 CARR. CHAN. - ALL  
 TP13 VOICE CONDR. - ALL  
 TP14 SIGNALING EQPT  
 TP15 SAGE - DDT & DDR  
 TP16 SAGE - CUG & DF TRK. EQPT.  
 TP17 OTHER

**LF LOCAL FACILITIES**

**K FOUND OK**

**CC CAME CLEAR**  
 CC21 CAME CLEAR IN SERVING LINK

BSP E12.150.21 **TROUBLE CLASSIFICATION CARD** E-4644  
**TELEGRAPH** (9-58)

**UNSECTIONALIZED TROUBLES**  
 (SECT. TO = ✓)

**T TEST OK**  
 T51 OPEN  
 T52 GARBLED  
 T53 CAN'T RAISE - NO ANS. BACK  
 T54 NO COPY - MISDIRECTED MSGS.  
 T55 NO TAPE PICKUP  
 T56 OTHER

**NC NONCLASSIFIED**

**CC CAME CLEAR**  
 CC51 OPEN  
 CC52 GARBLED  
 CC53 CAN'T RAISE - NO ANS. BACK  
 CC54 NO COPY - MISDIRECTED MSGS.  
 CC55 NO TAPE PICKUP  
 CC56 OTHER

**STC TROUBLES**  
 (SECT. TO = STC)

**STC SERVING TEST CENTER**  
 STC51 REPEATER - REGEN  
 STC52 REPEATER - OTHER  
 STC53 CARR. TERM. - FREQ. SHIFT  
 STC54 CARR. TERM. - AMP. MOD.  
 STC55 CUTTING ARNGTS.  
 STC56 PLANT ACTIVITIES  
 STC57 OTHER  
 STC58 CAME CLEAR

**INTER STC TROUBLES**  
 (SECT. TO = IS)

**IS INTER STC TROUBLES**

IS51 D.C. CONDR. - CABLE  
 IS52 D.C. CONDR. - OPEN WIRE  
 IS53 CARR. SYS. - FREQ. SHIFT  
 IS54 CARR. SYS. - AMP. MOD.  
 IS55 PLANT ACTIVITIES  
 IS56 OTHER

**IN TERR.**

IS71 TRBLS. LOCATED OUTSIDE TERR.  
 IS72 CAME CLEAR

**REFERRED OUT TROUBLES**  
 (SECT. TO = RO)

**RO REFERRED OUT**  
 RO51 \_\_\_\_\_  
 RO52 \_\_\_\_\_  
 RO53 \_\_\_\_\_  
 RO54 \_\_\_\_\_  
 RO55 \_\_\_\_\_  
 RO56 \_\_\_\_\_

**SERVING LINK TROUBLES**  
 (SECT. TO = CUST. LOC. DIST.)

**SC CUSTOMER ACTION**  
 SC51 OPERATION  
 SC52 MAINTENANCE  
 SC53 OTHER

**ICO INDEPENDENT COMPANY**

**ST STATION APPARATUS**  
 ST51 PERFORATOR  
 ST52 REPERF. TRNSMTR.  
 ST53 REPERF. - TYFING & NONTYPING  
 ST54 AUTO TRNSMTR.  
 ST55 KSR & RO  
 ST56 SUBSET D.C.  
 ST57 CARR. TERM.  
 ST58 OTHER

**SS SEL. SIG. & SWITCHING SYS.**  
 SS51 SOTUS  
 SS52 28 TYPE  
 SS53 64C1  
 SS54 ERX & SRX  
 SS55 AUTO. SW. SYS. - COMM. EQPT.  
 SS56 SEMIAUTO. SW. SYS. - COMM. EQPT  
 SS57 OTHER

**TP TOLL TYPE FACILITIES**  
 TP51 REPEATER - ALL  
 TP52 CARR. TERM. - FREQ. SHIFT  
 TP53 CARR. TERM. - AMP. MOD.  
 TP54 D.C. CONDR. - CABLE  
 TP55 D.C. CONDR. - OPEN WIRE  
 TP56 CARR. SYS. - FREQ. SHIFT  
 TP57 CARR. SYS. - AMP. MOD.  
 TP58 OTHER

**LF LOCAL FACILITIES**

**K FOUND OK**

**CC CAME CLEAR**  
 CC 61 CAME CLEAR IN SERVING LINK

Fig. 9 — Trouble Classification Cards for Use on SAR-3 Reports (Private Line Services)

TO 510-571-0370 A B SEE ANYWHERE, NY  
 ORG 510-222-9121 H I JAY HOMETOWN, ILL 9-23-65  
 SAR-3 WEEK ENDING 9-21-65 CONTROL CODE 0230002  
 >12GDA10205125 0917 STC11 0020 0020 =CKT OPEN DEF AMP HOMETOWN<  
 ---GP-2777--- 0918 --T11 0003 0003 =NO TBL FOUND<  
 END

**(a) Received on 35-Type Machine (Hard Copy)**

>12GDA10205125>>0917>>STC11>>0020>>0020>>=CKT>OPEN>DEF>AMP>HOMETOWN<←≡↑↑↑↑↑↑↑  
 >---GP-2777--->> 0918>> --T11>> 0003>> 0003>> =NO TBL FOUND<←≡↑↑↑↑↑↑↑  
 END

**(b) Body of Same Message Showing Teletypewriter Functions  
 Required For On-Line Card Punching**

Teletypewriter Functions Legend:

← Carriage Return  
 ≡ Line Feed  
 ↓ Erase (letters)  
 > Space

Teletypewriter Printout of  
 Card Punch Control Codes:

>Punch Start  
 <Punch Stop  
 =End Numeric

**Fig. 10— Sample of Service Analysis Report SAR-3**