

## NO. 2 SWITCHING CONTROL CENTER SYSTEM

### NO. 101 ELECTRONIC SWITCHING SYSTEM APPLICATION

### OPERATION AND TROUBLE ANALYSIS PROCEDURES

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- Teletypewriter (TTY) channel monitoring (connection for TTY send and receive to the office)
- Audible alarm inhibit/release (control of audible alarm signals).

**Note:** The work station control console associated with the maintenance center (MC) and the remote alarms are not used with No. 101 ESS.

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This section is based on Generic II of the No. 2 SCCS computer program.

**1. GENERAL**

**1.01** This section provides operation and trouble analysis procedures unique to a No. 2 Switching Control Center System (No. 2 SCCS) operating in conjunction with a No. 101 Electronic Switching System (No. 101 ESS). Refer to Section 190-110-310 for No. 2 SCCS common operating procedures applicable to the No. 101 ESS.

These procedures are:

- Work station access [via cathode ray tube (CRT) monitor, see note]
- Browsing (method of searching logging file)
- Filtering and sorting (extracting selected data from file)
- Pattern defining (definition of data to be filtered or sorted)

**1.02** Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

**1.03** The unique operations at the No. 2 SCCS applicable to a No. 101 ESS are:

- Respond to a No. 101 ESS alarm indication displayed on the alarm monitor and accompanied by an audible signal.
- Analyze a No. 2 SCCS 24-hour analysis program exception report, and respond to failures identified.

**1.04** Alarm indications are dependent upon the content of a No. 101 ESS TTY message or the absence of a valid TTY message. When TTY contact is lost or unintelligible messages are received from the No. 101 ESS, emergency action is required to determine if the data link is inoperative or the No. 101 ESS is out of service.

**1.05** The No. 2 SCCS 24-hour analysis program is provided to analyze the No. 101 ESS 24-hour maintenance printout. The 24-hour analysis program generates an exception report that lists test results in a concise form. The exception

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report is available from a software file and can be printed out on hard copy for use by a craftperson. The 24-hour analysis program can be scheduled to run daily or be called up by command.

**1.06** The operations necessary, with alarm response taking priority, are shown in flowchart format (Fig. 1). Part 2 describes the steps taken when an alarm is indicated. Part 3 describes the procedure for response to the 24-hour exception report.

**1.07** See PA-5P060, Section 10, for more detailed information on the No. 101 ESS TTY alarm messages and the No. 2 SCCS indications.

**1.08** See PA-5P060, Section 18, for details of the 24-hour analysis program and associated exception report.

### 2. NO. 101 ESS ALARM RESPONSE

**2.01** Fig. 1, Step 1, when a No. 101 ESS alarm sounds, the office name and the message associated with the alarm are displayed on the video alarm monitor. The audible alarm should be retired by the craftperson. (Minor alarm is self-retiring.)

**2.02** Fig. 1, Step 2, the alarm message will indicate either a No. 101 ESS TTY alarm message or an internally generated alarm.

**2.03** Fig. 1, Step 12, the internally generated alarm indicates a problem receiving TTY messages and is displayed as:

- REPORT LOG TBL 118 MESSG TIME OUT  
(Indicates more than 15 minutes have elapsed since the last TTY message was received)
- REPORT LOG TBL 119 LINE TIME OUT  
(Indicates excessive time has elapsed from the beginning of a TTY message and receipt of the end-of-line character)
- REPORT LOG TBL 117 EXCESSIVE LINE  
(Indicates more than 80 TTY characters were received without receipt of the end-of-line character).

Any one of the foregoing alarm indications requires emergency action because all No. 101 ESS coverage by the No. 2 SCCS is cut off with the loss of

TTY communications. Section 190-119-311, No. 2 SCCS 101 ESS Application Emergency Action Procedure, is estimated to be available the first quarter of 1977.

**2.04** Fig. 1, Step 3, the No. 101 ESS TTY alarm message (displayed on alarm monitor) is used to find the TTY message in the logging file. The TTY message is expanded by using the EXPAND command on the work station CRT. Fig. 1, Step 9, many of the 101 ESS TTY message expansions refer to the applicable Trouble-Locating Procedures section.

**2.05** Fig. 1, Steps 4, 5, and 9, when an expanded message does not exist or refer to a section, check the TTY message in the 101 ESS Trouble-Locating Manual TLM-1H030. Fig. 1, Steps 6 and 7, the TLM-1H030 will reference a trouble number within the manual or a 101 ESS 240-XXX-XXX section.

**2.06** Fig. 1, Step 8, there are a few messages in the TLM-1H030 that provides information about the state of the 101 ESS without a trouble procedure reference, such as MSa Sxhc Me-- which indicates a power failure coincident with SUM test failure. The message expansion will detail the message meaning (see Output Message Manual OM-1H000) when expansion is not provided for the message in question.

**2.07** Fig. 1, Step 11, local instructions for dispatching craftpeople or trouble referral are necessary because of varying conditions in the operating companies.

**2.08** An example of using the filtering and sorting feature of the No. 2 SCCS for No. 101 ESS application is when a number of retry TTY messages are received and logged (Section 240-200-502). The retry messages can be filtered from the logging file per switch unit (SU) number in word 2 and placed in user file No. 1. The user file No. 1 can be sorted by the type of retry message in word 3 and placed in user file No. 2. The user file No. 2 can be expanded and placed in user file No. 3. User file No. 3 can be browsed or printed out to search for common equipment units involved in all messages. Conversions, such as decimal scan points to octal group vertical horizontal (GVH) locations, can be done with the No. 2 SCCS conversions feature.

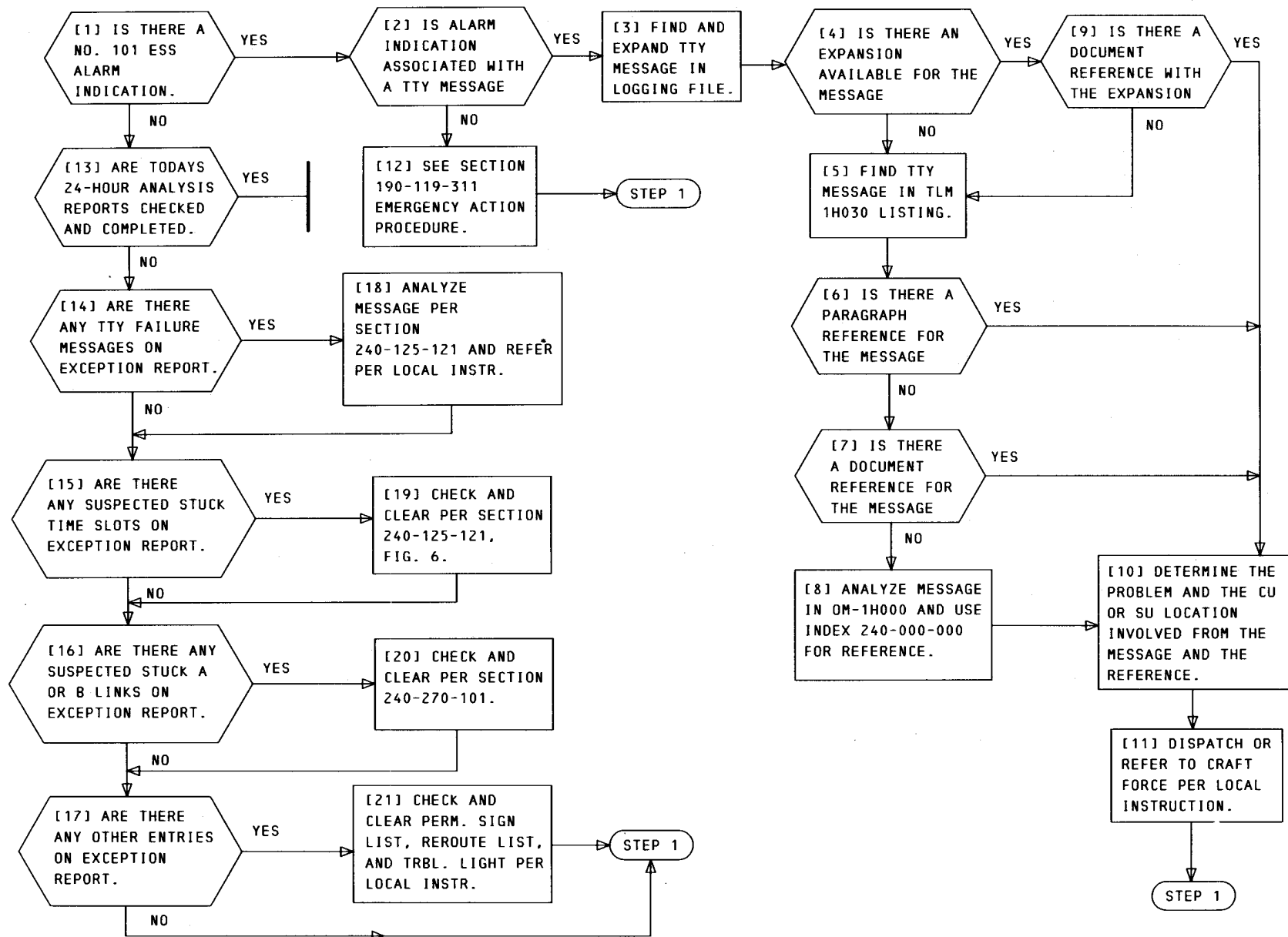


Fig. 1—No. 101 ESS Response Flowchart

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**2.09** A craftperson sent to a No. 101 ESS SU location may use a portable TTY terminal to send messages to and receive messages from the control unit (CU) per trouble-locating procedure instructions. The portable TTY terminal is acoustically coupled to any telephone set at the No. 101 ESS SU location. The telephone set is used to dial a data terminal that is equipped with a remote work station port on the No. 2 SCCS computer. The TTY terminal connected this way has access to all No. 2 SCCS features except browsing and eliminates the need to have a craftperson to input TTY messages from the CU or SCCS location.

**2.10** Fig. 1, Step 13, when looking for today's 24-hour analysis reports, consider the following:

- (a) One analysis report for each No. 101 ESS CU linked to the No. 2 SCCS
- (b) The time of day each 24-hour analysis report is scheduled compared to the present time
- (c) The reason a 24-hour analysis report is not available for today when scheduled time is past.

See PA-5P060, Section 11, for scheduling guidelines and local records for actual schedules. The 24-hour analysis report is dependent on the completion of the No. 101 ESS 24-hour maintenance printout.

**3. 24-HOUR ANALYSIS REPORT RESPONSE**

**3.01** The No. 2 SCCS 24-hour analysis program sorts, filters, and formats the TTY messages from the No. 101 ESS 24-hour maintenance printout into a concise report. A typical No. 101 ESS 24-hour maintenance printout as entered in the logging file for CU ID4 follows.

**Note:** ID4 is in Illinois, downtown Chicago central office (CO), No. 4 CU.

041501590041  
MT1 240R 240R. \*

041501590141  
ST- 4--- ----  
TIME 0200.

041502002441  
MM1 S400 ---0 M771 ---S ---0.

041502003041  
MM1 S400 --2S 4-51 ---S.  
TIME 0201.

041502010041  
MM1 S400 ---0 R773 ---S ---0.

041502010041  
MM1 S400 --2S 4-5- ---S.  
TIME 0202.

041502013441  
MM1 S400 ---0 7771 ---S ---0.

041502013441  
MM1 S400 --2S 4-51 ---S.  
TIME 0202.

041502025841  
MM1 S400 ---0 R773 ---S ---0.

041502030541  
MM1 S400 --2S 4-5- ---S.  
TIME 0204.

041502044141  
MM1 S400 ---3 ---- -1MS ---0.

04150204481  
MM1 S400 ---1 41-1 ---S.  
TIME 0205.

041502052141  
MM1 S400 ---0 -4-- ---S ---0.

041502052641  
MM1 S400 ---1 41-1 ---S.  
TIME 0206.

041502084941  
ST1 ---- ----  
TIME 0210.

041502113841  
MM1 S400 ---0 R773 ---S ---1.

041502114641  
MM1 S400 --2S 4-51 ---S.  
TIME 0212.

041502120141  
MM1 S400 ---0 R773 ---S ---1.

041502120741 MM1 S400 --2S 4-5- ---S. TIME 0213.	041502182541 MT1 TS27 -C98 --R2 -228 -12M.
041502122741 MM1 S400 ---0 1--- ---S ---1. TIME 0213.	041502183241 MT1 TS26 -C9S --0R --C6 -06M --86.
041502131041 MM1 S400 ---3 ---- -1MS ---1.	041502183941 MT1 TS25 -C0- ---2 -24S -24R -811.
041502131141 MM1 S400 ---1 41-3 ---S. TIME 0214.	041502184641 MT1 TS24 -C04 -072 -074 -2MR -9C7.
041502135241 ST- ---- ----. TIME 0215.	041502185441 MT1 TS23 -C08 -18- -181 -12S -074.
041502164941 MT1 24CC S400 -251. TIME 0218.	041502190341 MT1 TS22 -C0S -116 -282 -2M4 -865.
041502171541 MT1 2-53 1S3- 5--8 ---- ---- -1M4.	041502191341 MT1 TS21 -CM- -1R0 -17- --87 -19-.
041502172141 MT1 2-52 -S34 4--8.	041502191941 MT1 TS20 -CM4 -20S ---- -11S -9T1.
041502173041 MT1 1-53 -C3- 5--8 ---- ---- -1M4.	041502192841 MT1 TS19 -CM8 -2-5 ---- -0M2 --36.
041502173541 MT1 1-52 1C34 4--8.	041502193341 MT1 TS18 -CMS -074 -1T8 -0C1 --36.
041502174241 MT1 --53 1T3- 5--8 ---- ---- 01M5.	041502194041 MT1 TS17 -CS- --60 --96 -021 -282.
041502175141 MT1 --52 -T34 3--8.	041502194741 MT1 TS16 -CS4 ---1 ---- -2MT -20C.
041502180141 MT1 TS31 -C88 -26M -912 --2M.	041502200041 MT1 TS15 -CS8 -22S -291 --M- -055.
041502180441 MT1 TS30 -C8S -297 -055 -9T- -1TC.	41502200141 MT1 TS14 -CSS --86 -19- -16R --4R.
041502181141 MT1 TS29 -C9- -905 -904 -1M5 -176.	041502200841 MT1 TS13 -CC- -14- -1SC -064 -060.
041502181941 MT1 TS28 -C94 -120 ---- -140 -889.	041502202341 MT1 TS12 -CC4 -8-6 -8-0 -962 -932.
	041502202941 MT1 TS11 -CC8 -911 -236 -84- -221.
	041502203941 MT1 TS10 -CCS -22M -96- -1S0 -8T0.

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041502204441  
MT1 TS09 -CT- -00S -84S -814 -9C6.

041502205141  
MT1 TS08 -CT4 -9T0 --T8 -9S0 -8T0.

041502210041  
MT1 TS07 -CT8 -0-S -8T0 -0-C -8T0.

041502210441  
MT1 TS06 -CTS -01- -8T0 -055 -1M4.

041502211241  
MT1 TS05 -CR- -1S2 -1M4 -176 -1M4.

041502211941  
MT1 TS04 -CR4 -1S3 -1M4 -820 -178.

041502212541  
MT1 TS03 -CR8 -0-M -8T0 -114 --2-.

041502213241  
MT1 -4-4 S400 ---1.

041502213941  
MT1 -414 S400 ---- -1--.

041502214641  
MT1 -42- S400 ---- ---- --8-.

041502220041  
MT1 -424 S400 ---- ---8 --81.

041502220041  
MT1 -428 S400 ---1.

041502220741  
MT1 -48S S400 ---- ---- --4-.

041502221441  
MT1 -494 S400 ---- ---8.

041502222241  
MT1 -408 S400 ---- ---- 1--- --1-.

041502222841  
MT1 -40S S400 ---- ---- ---4.

041502223541  
MT1 --S- S400 ---3 ---- ---2.

041502224241  
MT1 --SS S400 ---- ---- ---- -4-.

041502224941  
MT1 --C- S400 ---- ---- ---1.

041502230041  
MT1 --C8 S400 ---- ---- 2---.

041502230341  
MT1 --T- S400 2--3 ---- 2--- 2--2.

041502231041  
MT1 --T4 S400 ---4 ---- ---1.

041502231741  
MT1 --TS S400 ---- ---0 ---- 11--.

041502232541  
MT1 -21- S400 ---- --41.

041502232641  
MT1 -27S S400 T6--.

041502233241  
MT1 -29- S400 --59.

041502233941  
MT1 -2C4 S400 ---- ---- ---- --5-.

041502234541  
MT1 -3-4 S400 ---- ---- ---- ---5.

041502235241  
MT1 -314 S400 ---- ---- ---- --51.

041502240041  
MT1 -31S S400 ---- ---- ---- --64.

041502240641  
MT1 -368 S400 ---- ORM6.

041502241341  
MT1 -37S S400 --T2.

041502242041  
MT1 -304 S400 --42.

041502242141  
MR3 R8-T S400.

041502242741  
MM1 S401 ---0 R773 --2S ---2.

041502243441  
MM1 S401 ---0 -54- --2S ---2.  
TIME 0225.

041502244841 MM1 S401 ---0 R773 --2S ---2.	041502282641 MM1 S401 ---1 41-1 --2S. TIME 0229.
041502244941 MM1 S401 ---1 41-1 --2S.	041502284641 MM1 S401 ---1 41-1 --2S. TIME 0229.
041502250041 MM1 S401 --2S 4-5- --2S. TIME 0226.	041502290041 ST- ---- ----. TIME 0230.
041502250241	041502345041 MM1 S401 ---0 C573 --2S ---3.
041502250941 MM1 S401 ---4 7773 --3-.	041502350141 MM1 S401 ---1 41-3 --2S.
041502251041 MM1 S401 ---1 41-1 --2S.	041502350241 MM1 S401 --2S 4-51 --2S. TIME 0236.
041502251641 MM1 S401 --2S 4-51 --2S. TIME 0226.	041502351141 MM1 S401 ---4 M773 --2S.
041502253041 MM1 S400 ---1 41-3 ---S. TIME 0226.	041502351241 MM1 S401 ---1 41-1 --2S.
041502263341 MM1 S401 ---0 R773 --2S ---2.	041502351841 MM1 S401 --2S 4-5- --2S. TIME 0236.
041502264041 MM1 S401 ---0 ---2 --2S ---2.	041502353241 MM1 S401 ---3 ---- -1MS ---3. TIME 0236.
041502264741 MM1 S401 --2S 4-5- --2S. TIME 0228.	041502360041 MM1 S401 ---0 4--- --2S ---3. TIME 0237.
041502273641 CC1 S414 ---9 2MS3 -S51.	041502393841 MT1 24CC S401 -1-- 3333. TIME 0240.
041502273741 CC1 S414 ---9 2MC8 -S54.	041502402141 MT1 2-51 1838 5--8 ---- ---- 01M3.
041502274441 MM1 S414 ---6 -6-- -1S-.	041502402741 MT1 2-50 -83S ---8.
041502275141 CC1 S414 --SC -M-2. TIME 0229.	041502403641 MT1 1-51 -938 5--8 ---- ---- 01M3.
041502281841 MM1 S401 ---3 ---- -1MS ---2.	

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041502404441 MT1 1-50 -93S S--8.	041502423941 MM1 S204 ---0 C673 --8S ---0.
041502405041 MT1 --51 -038 5--8 ---- ---- 01M3.	041502424641 MM1 S204 --2S 4-51 --8S. TIME 0244.
041502410041 MT1 --50 103S ---8.	041502434941 ST- ---- ----. TIME 0245.
041502410141 MT1 TS31 -988 -160 -2-7 -1M2 -1T0.	041502440441 MM1 S204 ---0 R773 --8S ---0.
041502411041 CC1 S414 ---9 2-4S -S-6.	041502441041 MM1 S204 --2S 4-5- ---8S. TIME 0245.
041502411141 MR3 R8-T S401.	041502460141 MM1 S204 ---0 ---2 --8S ---0. TIME 0247.
041502411641 MT1 TS28 -994 -911 -236 --49 -166.	041502461741 MM1 S204 ---0 4--- --8S ---0. TIME 0247.
041502413041 MT1 TS27 -998 --TC -9T0 -2TR -026.	041502533741 MT1 24CC S204. TIME 0254.
041502413741 MT1 TS26 -99S -8-7 -165 -005 --S4.	041502541241 MT1 TS13 -6C- --M3 --T5 4-S5.
041502414341 MT1 TS25 -90- -192 -0-6 -996 ---4.	041502541941 MT1 TS12 -6C4 4--5 ---- --M0 --M6.
041502415041 MT1 TS24 -904 -82- -101 -080 -2-7.	041502542641 MT1 TS11 -6C8 --C- --85 --CM --M6.
041502420041 MT1 TS23 -908 -8-6 -8-0 -16M -9T0.	041502543341 MT1 TS10 -6CS --CS --M6 --MM --M6.
041502420441 MM1 S415 ---3 ---- -RM-.	041502544141 MT1 TS09 -6T- --S7 --S8 --M7 --M6.
041502421341 MM1 S204 ---0 C673 --8S ---0.	041502550041 MT1 TS08 -6T4 --M8 --M6 --M2 --T5.
041502422141 MM1 S204 ---4 T--2 --8S.	041502550141 MT1 TS07 -6T8 --0M --T5 --00 --T5.
041502422241 MM1 S204 --2S 4-51 --8S.	041502550241 MT1 TS06 -6TS --09 --T5 --08 --T5.
041502422541 MM1 S204 ---0 R773 --8S ---0.	
041502423241 MM1 S204 --2S 4-5- --8S.	



041502550841  
 MT1 24-M 0000 --00.

041502551741  
 MT1\* 24-S 0100 --00.

041502552241  
 MT1 24-C 0000 --00.

041502552941  
 MT1 24-R --00 --00 --19.

041502553041  
 CM1 8-2- -9-2.

041502553741  
 CM1 8--- -RS4.

041502553841  
 MT1 24TC 24TC. †  
 TIME 0256.

\*START OF 24 HR MTCE ID4  
 †END OF 24 HR MTCE ID4

**3.02** The No. 2 SCCS 24-hour analysis program is scheduled after completion of the No. 101 ESS 24-hour maintenance program. The exception report generated by the 24-hour analysis program (Fig. 2) is available in the REPORT file and is optionally directed to a line printer when hard copy is needed. See PA-5P060, Section 18, for details of the program. Fig. 2 is the analysis report of the messages shown in 3.01 for CU ID4. Fig. 3 is another example of a report for CU ID1. ID1

and ID4 are the No. 101 ESS office identifications from the No. 2 SCCS used for the example.

**Note:** ID1 and ID4 are in Illinois, downtown Chicago CO, No. 1 and 4 CUs.

**3.03** The SCCS craftperson should respond to the failure messages listed under Exceptions Found portion of the analysis report first per Section 240-125-121. [For example, see Fig. 3 under Control Unit: MT1 24C5 --M2. This message is listed in Section 240-125-121 and leads to testing the on-line parity error (PE) circuitry. A failure requires a visit to the CU, but an OK test is logged and disregarded.]

**3.04** When all failure messages are analyzed, the list of Suspected Stuck Time Slots is the next item needing response. Refer to Section 240-125-121, Fig. 6, and release stuck time slots when applicable.

**3.05** Analysis of Suspected Stuck A- or B-Link Status Bits is the next item for response. See Fig. 2 under Switch Unit 00 for examples. Refer to Section 240-270-101, and type in a TTY semitrace for suspected A- or B-link. If the semitrace does not indicate an associated talking time slot, proceed to release time slot per Section 240-270-101.

**3.06** The remaining Suspected Permanent Signals, Bad Reroute List, and Trouble Light Expansion items are administered per local procedures.

NO. 101 ESS 24-HOUR EXCEPTION REPORT — id4  
FOR Thu Apr 15 1976

CONTROL UNIT SUMMARY: (CP 1 ON-LINE)

ALARM SUMMARY:

<u>SOURCE</u>		<u>MAJOR</u>	<u>MINOR EQPT RMV.</u>	<u>MINOR</u>
MISC. MAINT.	—	0	0	0
SWITCH UNIT	—	0	1	0
CALL PROCESSOR	—	0	0	0

AUDIT RELEASES:

<u>SOURCE</u>		<u>NUMBER RELEASED</u>
DIGIT RECEIVERS	—	0
DIGIT TRUNKS	—	0
TRUNKS	—	19

EXCEPTIONS FOUND:

SWITCH UNIT 00:

SUSPECTED STUCK A-LINK STATUS BITS:

ADDRESS= -428	BIT= 1
ADDRESS= -426	BIT= 1
ADDRESS= -422	BIT= 8

SUSPECTED STUCK B-LINK STATUS BITS:

B-LINK	GVH=	12-4-1	ADDR= --T4	BIT= 3	TDS= 0
B-LINK	GVH=	12-6-0	ADDR= --T6	BIT= 1	TDS= 0
B-LINK	GVH=	12-0-6	ADDR= --T-	BIT= 14	TDS= 1
B-LINK	GVH=	12-3-0	ADDR= --T3	BIT= 2	TDS= 1
B-LINK	GVH=	13-7-6	ADDR= --TR	BIT= 13	TDS= 0

SUSPECTED PERMANENT SIGNALS: (lcen= f/d/1)

LCEN= 1/2/25	B-LINK	GVH= 10-2-0	LC= 0
LCEN= 0/7/6	B-LINK	GVH= 9-7-5	LC= 1
LCEN= 2/7/2	B-LINK	GVH= 13-7-4	LC= 1

Fig. 2—CU ID4 24-Hour Analysis Report (Sheet 1 of 2)

## SWITCH UNIT 01:

## SUSPECTED PERMANENT SIGNALS: (lcn= f/c/1)

LCEN= 0/2/1	B-LINK	GVH= 8-2-0	LC= 0
LCEN= 1/2/16	B-LINK	GVH= 11-2-6	LC= 1
LCEN= 2/2/17	B-LINK	GVH= 12-2-6	LC= 0
LCEN= 2/3/4	B-LINK	GVH= 12-3-6	LC= 0
LCEN= 2/5/22	B-LINK	GVH= 13-5-0	LC= 1
LCEN= 2/5/15	B-LINK	GVH= 13-5-1	LC= 1

## SWITCH UNIT 04:

NO EXCEPTIONS FOUND.

## TROUBLE LIGHT EXPANSION:

041502553041

CM1 8-2- -9-2.

041502553041

id4.mtc

trouble light expansion

tdc0 digit trunks out of service

trunk 5

su: 01 ldn: 661-5000 customer: amer. national bank

---end of expansion---

041502553741

CM1 8-2- -9-2.

041502553741

id4.mtc

trouble light expansion

flood gates inhibited

---end of expansion---

----- END OF FILE EXPANSION -----

Fig. 2—CU ID4 24-Hour Analysis Report (Sheet 2 of 2)

NO. 101 ESS 24-HOUR EXCEPTION REPORT — id1  
FOR Thu Apr 15 1976

CONTROL UNIT SUMMARY: (CP 1 ON-LINE)

ALARM SUMMARY:

<u>SOURCE</u>		<u>MAJOR</u>	<u>MINOR EQPT RMV</u>	<u>MINOR</u>
SWITCH UNIT	—	0	0	12
CALL PROCESSOR	—	0	0	2

AUDIT RELEASES:

<u>SOURCE</u>		<u>NUMBER RELEASED</u>
DIGIT RECEIVERS	—	0
DIGIT TRUNKS	—	0
TRUNKS	—	0

EXCEPTIONS FOUND:

CONTROL UNIT:

MT1 24C5 —M2.  
(Parity error (PE) not caught in off-line CP.)

SWITCH UNIT 00:

FAILURES:

MS2 S300 S-C3 ----- M--1.

TRUNKS OUT OF SVC:

TDC= 1 TS= 57 ADDR= -T2- PM= 36 GVH= -64 D SP= 52

SWITCH UNIT 02:

FAILURES:

MR4 TM-4 S202 ----2.  
MS2 S202 R2-- ----- 1-55 R2-- 03-6.

Fig. 3—CU ID1 24-Hour Analysis Report (Sheet 1 of 2)

SWITCH UNIT 03:

NO EXCEPTIONS FOUND.

SWITCH UNIT 04:

FAILURES:

MS2 S304 S-C3 -15- 8--1.

TROUBLE LIGHT EXPANSION:

041503471038  
CM1 8-85 -6-2.  
041503471038

idl.mtc  
trouble light expansion

bus 0 bad  
data link 0 bad  
scanner 1 in use

su: 02 1dn: 645-6600 customer: lee king

--- end of expansion---

041503471 738  
CM1 TRRR -RC6.  
041503471738

idl.mtc  
trouble light expansion

digit receivers marked bad are listed below  
28

--- end of expansion---

-----END OF FILE EXPANSION-----

Fig. 3—CU ID1 24-Hour Analysis Report (Sheet 2 of 2)

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**4. REFERENCES**

**4.01** The following sections are provided for further details of the data links and the TTY equipment:

SECTION	TITLE
591-014-XXX	103A-Type Data Set
591-028-XXX	108D- and 108E-Type Data Sets
591-039-XXX	103J-Type Data Set
591-812-XXX	Secure Model 28 Teletypewriter Station
573-101-100	28 Automatic Send-Receive (ASR) Teletypewriter Set Description
574-228-100	35 Cabinet for Automatic Send-Receive Sets General Description and Operation

**4.02** The following sections and manuals are provided for further details for the No. 2 SCCS equipment:

SECTION	TITLE
190-110-110	No. 2 SCCS Common Application Description
190-110-310	No. 2 SCCS Common Application Operating Procedures
190-119-110	No. 2 SCCS 101 ESS Application Description
190-119-311	No. 2 SCCS 101 ESS Application Emergency Action Procedure

MANUAL	TITLE
IM-1P131-01	No. 2 Switching Control Center System, Input Message Manual
PA-1P131-01	No. 2 Switching Control Center System, Common Application Program Application Instruction
PA-5P060-01	No. 2 Switching Control Center System, No. 101 ESS Application Program Application Instruction

**4.03** The following sections and manuals are provided for further details of the No. 101 ESS equipment:

SECTION	TITLE
240-110-101	Maintenance Programs—Description of System Operations, No. 101 ESS
240-125-121	24-Hour Maintenance Printout, No. 101 ESS
240-125-122	Direct Access Direct Inward Dialing—Printout Analysis, No. 101 ESS
240-125-123	Analysis of Miscellaneous—Maintenance Printouts, No. 101 ESS
240-200-501	Switch Unit Periodic Maintenance Routine, No. 101 ESS
240-200-502	Switch Unit Maintenance—Retry Printout Analysis, No. 101 ESS
240-250-301	No. 101 ESS Guide to Trouble Analysis, 2A Switch Unit
240-260-301	No. 101 ESS Guide to Trouble Analysis, 3A Switch Unit
240-270-301	No. 101 ESS Guide to Trouble Analysis, 4A Switch Unit
240-300-301	Emergency Action Procedures Control Unit, No. 101 ESS
240-300-302	Night Coverage Procedure Control Unit, No. 101 ESS
966-300-100	No. 101 ESS General Descriptive Information

MANUAL	TITLE
IM-1H000	No. 101 ESS Input Message Manual
OM-1H000	No. 101 ESS Output Message Manual
TLM-1H030	No. 101 ESS Trouble-Locating Manual

**4.04** The following list of acronyms are used in this section:

CRT Cathode Ray Tube

CO Central Office

CU Control Unit

ESS Electronic Switching System

GVH

MC

PE

SCCS

SU

TTY

Group Vertical Horizontal

Maintenance Center

Parity Error

Switching Control Center System

Switch Unit

Teletypewriter