

MAGNETIC TAPE MANAGEMENT FOR STORED PROGRAM CONTROL,  
AUTOMATIC MESSAGE ACCOUNTING AND AUTOMATIC MESSAGE  
ACCOUNTING RECORDING CENTER APPLICATIONS - DESCRIPTION

1. GENERAL

- 1.01 This Addendum supplements Section 034-311-301 to provide information specific to Central Office Magnetic Tape Management (NON-AMATPS) .
- 1.02 This Addendum is reissued to prescribe additional methods to be used in Central Office Magnetic Tape Management in the Southwestern Bell Telephone Company.
- 1.03 Two recorders are used at central offices and are identified as Transport 0 and 1. Usually only one recorder will be used for any one recording period and, consequently, only one tape is sent to comptrollers. Both recorders may be used in emergency conditions and two tapes would then be forwarded to Comptrollers. Locations having recording systems, which transfer automatically between drives, may forward two tapes to Comptrollers, as a matter of routine, due to heavy volume. Exhibit 1 lists a summary of Recording Systems.
- 1.04 A recording period may include Saturday and Sunday in some locations. In some locations, a single reel may contain AMA data for more than one business day. To accomplish this, a scheduled recording period must be coordinated with the Comptrollers Revenue Accounting Office (RAO) and be programmed in the central offices to include more than one business day.
- 1.05 Experience has indicated a need to watch closely for tape recording and processing problems during the period immediately following a conversion. To eliminate these problems and insure proper equipment operation, recording periods should consist of one day for the first fourteen days after the conversion to a new switching system. During this period, only one reel should be forwarded to Comptrollers for each calendar day (except for emergency transfer). Coordination with the Comptrollers Department personnel in this regard must be handled prior to conversion.

5. TAPE IDENTIFICATION

(Section 5 is changed in its entirety to read as follows:)

5.01 External Tape Labels

NOTICE  
Not or use or disclosure outside  
Southwestern Bell Telephone Company  
except under written agreement.

identification label affixed to the front reel flange.

These labels (Exhibit 2) carry a standard Southwestern Bell Telephone form number. Certain information and the color of ink identifies the labels used for specific type of central office recording.

Tape recorders used in ESS #1 locations do not have a rewind feature. The tape is removed from the magnetic tape recorder in the central office by winding forward. Both reels are removed from the recorder and both reels are sent to Comptrollers without rewinding. Tapes will be rewound in Comptrollers before processing. In these cases, a reference label, SW-4193, Exhibit 3, shall be attached to the "Take-Up" tape reel upon loading the tape in the central office. This label is used by the Comptrollers Department to identify which tape recording location the reel is to be returned to after processing.

### 5.02 Labeling Tape Reels

The master external label used on tape reels for AMA recording is designed for handling three cycles for 45 days. After the third cycle retention period has expired, and when tapes are degaussed and cleaned in Comptrollers, the old master external label is replaced with a new master external label. The Tape ID number is carried forward to the new external label.

Comptrollers should assign the tape ID numbers and label reels first used at an initial conversion to magnetic tape AMA recording.

### 5.03 Tape Identify Numbers

A standard external tape identity numbering scheme is used as follows:

Position	Digit	Significance
1	9	A tape file without a fixed internal tape serial number.
2	Alpha	A single alphabetic code for the Comptrollers office processing the central office tape.

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3	Alpha	A single alphabetic code for the type of AMA central office to which the tape reel is assigned:  R, S, - Single Entry, T, U, 9-track recording 200 V, W, bpi, ASCII. X or Y (ESS-1 and TSPS)  M, N - Multi-entry, 9-track recording, 200 bpi ASCII. (ESS-2 and MTR)  C, D - Single Entry, 9-track recording, 1600
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bpi, EBCDIC, Standard Labels.

E, F, G - Single Entry, 9-track recording, 1600  
bpi, ASCII. (Air Time)

H, I - Single Entry, 9-track recording, 1600  
bpi, ASCII. (Air Time)

Position	Digit	Significance
4-6	3	Used for identification of the vault location in Digit Comptrollers tape library and identification of the central office location to which this tape is assigned.

A complete tape ID number would appear as 9XS099. Two alpha characters are available with this coding for recording within a Comptrollers Division. The first letter is used until 1,000 reels have been assigned. For example:

Single Entry 1st 1,000 reels S000 to S999  
2nd 1,000 reels T000 to T999

A master list of AMA magnetic tape files should be established and maintained in Comptrollers.

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##### 5.04 Office Tape Identity (OTID) and Sensor Identification

Office Tape Identity (OTID) is a Six digit number used to identify the AMA recording location. The OTID is called SENSOR Identification by systems recording in standard format. Assignment of this number is a Comptrollers responsibility to prevent duplication within an RAO or NPA. Network uses the OTID/SENSOR on AMA tape labels and AMA data records to identify the recording location.

The AMA entry programs enter the SENSOR Identification number (Recorder Group-NPA) in the Recorded messages and access records so that CABS can match the usage to the Interexchange Carrier trunks. OTID numbers for Multi-entry and single entry AMA recorded messages are converted to the SENSOR number format (Recorder Group and NPA) by Programs AL011 and AA500.

##### 5.06 AMA Standard Format

AMA Standard Format recording refers to the OTID as the Sensor Identification which appears in each record. The first three digits are the Recorder Group number and are used as the Recording Location Identification for AMA reports and statistics. The last three digits are the NPA where the recorder group is physically located.

The numbering system for Standard Format OTID/SENSOR Identification number is as follows:

DIGIT 1 - Type of AMA Recording

1 = ESS 1/1A, DMS10, DMS 100/200

- 2 = ESS 2/2B
- 4 = MTR, DIGITECH
- 5 = AMARC, ESS 5
- 7 = MOBILE
- 8 = ESS4

DIGIT 2&3 - Recording Location Code (Recorder Group assigned to the recording location)

DIGIT 4-6 - NPA

The master recording location list is maintained in the processing RAO. Recorder group numbers cannot be duplicated within an RAO or NPA.

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5.07 AMA Single Entry and Multi-Entry

AMA Single entry and Multi-entry formats refer to OTID as the Office Tape Identification which appears in the label type records, and on the exterior tape label. When these types of recording change to AMA Standard Format, the OTID/SENSOR Identification will be changed to the format described above:

The numbering system for AMA Single entry and Multi-entry format is as follows:

DIGIT 1 - Type of AMA Recording

- 1 = ESS 1/1A, DMS 10, DMS 100/200
- 2 = ESS2
- 4 = MTR, DIGITECH
- 5 = AMARC, ESS5
- 7 = MOBILE
- 8 = ESS4

DIGIT 2 - Units digit of the NPA in which the office is located, e.g., 4 for NPA 314.

DIGITS 3-4 - Two digits for the division in which the recording location is located as followed:

- |                |                |               |
|----------------|----------------|---------------|
| 00 St. Louis   | 10 N. Kansas   | 20 Arkansas   |
| 01 Ladue       | 11 S. Kansas   | 21 Long Lines |
| 02 Long Lines  |                |               |
| 30 W. Oklahoma | 40 S. Dallas   | 50 Houston    |
| 31 E. Oklahoma | 41 Fort Worth  | 53 Beaumont   |
| 32 Long Lines  | 43 N. Dallas   | 54 Long Lines |
| 62 Lubbock     | 72 Springfield |               |
| 63 San Antonio | 73 Kansas      |               |
| 64 Austin      | 74 Long Lines  |               |

65 Long Lines

DIGITS 5-6 - Recording location code, e.g., recorder group, assigned to the recording location. This master recording location code list is maintained in the processing RAO.

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## 8. TAPE SHIPPING

### 8.10 (Change this paragraph to read as follows:)

The AMA Magnetic Tape Transmittal, Form SW-5233A, (Exhibit 4), is a three part carbon-interfold assembly used to report central office trouble, processing problems or routine activity related to the AMA tape. The first copy is white and is used by Comptrollers, the second copy is yellow and is used by Comptrollers to report processing trouble to Network Operations and the third copy is green and is retained by the originator. Each copy is preprinted on the bottom with it's designated use.

(Add the following paragraphs:)

- 8.10.1 Form SW-5233A shall be prepared for each recording period. A recording period may be a single day, a number of days, or a weekend. All trouble incidents and irregular activity and the time of day they occurred are important entries to be made on the form. The Switching Control Center should be contacted to learn the details of any trouble conditions or time changes performed. Incidents reported on the SW-5233A alert the Revenue Accounting Office that additional care must be exercised when processing specific tapes.
- 8.10.2 Each tape shipment should include all magnetic tape containing entries for the completed recording period. Situations may arise when an AMA recorder transfer occurs after the scheduled transfer. Where the central office is unattended during this time, the magnetic tape on the on-line (active) recorder contains entries for the current recording period and the completed recording period. For such a case, and as soon as the trouble has been cleared, an AMA recorder transfer should be made. The magnetic tape on the standby recorder should then be changed and the tape reel included in the regular shipment to the Revenue Accounting Office. An entry should be made on Form SW-5233A, noting the existence of AMA Data entries for both the completed and ensuing periods.
- 8.10.3 Trouble and activity notation shall include the date, the time, and a brief explanation (i.e., broken tape, transfer testing, time change, etc.).
- 8.10.4 Form SW-5233A, shall be prepared for each recording period and distributed as follows:
- (a) Green Copy - To be retained by the originator in the central office. This copy should be retained for a minimum of 90 days.
  - (b) White Copy - To be forwarded to Comptrollers with the tape for retention.

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(c) Yellow Copy - To be forwarded to Comptrollers with the tape and used to report back to the originator, or location designated by Network Operations, any processing problems encountered. Within 30 days from receipt, the originator will investigate those discrepancies which could be a result of central office AMA equipment troubles and note the findings on the yellow copy. The form should then be forwarded to the Section AMA Committee or Equipment Billing and Accuracy Control (EBAC) Center, for review.

(d) The white and yellow copies are to be locked inside the shipping case.

8.10.5 To insure security of AMA tapes while they are transported between recording location and Revenue Accounting Office, the shipment case will be secured by a lock or seal.

8.10.6 To facilitate transport and tracking of the tape cases, an AMA CASE TRANSMITTAL form (example shown in exhibit 5) should be completed by central office personnel and left with the AMA case. When the courier picks up the case, the case transmittal will be updated by the courier who will retain the white and yellow copies, and leave the pink copy at the pick up point.

8.10.7 Tapes should be transported in a manner which will ensure their security and maintain their integrity. If company vehicles (e.g., autos, vans, trucks) are used to transport tapes rather than arranging transportation with a professional vendor, the following additional shipping procedures should be considered:

(a) There should be no smoking in the transport vehicle.

(b) The vehicle should be designed to provide the proper temperature and environment for tapes during any climate; and should not be identified as a tape transportation vehicle.

(c) Heavy objects should not be transported with the tapes. If these items must be transported with the tapes, then they should not be placed on top of tape shipping containers.

10. MAINTENANCE

10.05 Cleaning and Rehabilitation

(Add the following paragraphs:)

(C) Tapes used for central office AMA recording will be degaussed (erased) before returning to the central office for reuse. Tapes will also be cleaned when degaussed.

(d) The Comptrollers Department is responsible for the expense of purchasing new tapes, replacing defective tapes, cleaning and recertifying tapes, etc.

(e) The Comptrollers Department will clean, certify, and order replacement AMA magnetic tapes and containers as specified in SW 750-312-900, Issue A, March 1985.

11. SECURITY (add the following paragraphs)

11.01 Operations is responsible for the security of AMA data during its recording onto the tape, and for the tape until it is picked up by the courier.

11.02 AMA tapes with recorded data must not be left in unsecured areas. These tapes should be locked inside the transport case as soon as possible after they have been prepared for shipment.

11.03 AMA cases awaiting pick up by the courier, must either be kept within a secure room staffed by operations personnel, or must be secured in a locked cabinet (or equivalent) while awaiting pick-up. At no time should AMA tapes with recorded data be left unattended or unsecured. The environmental conditions for protection of magnetic tapes (temperature, humidity, etc.) must be considered when selecting a courier pick up point.

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EXHIBIT 1

SUMMARY OF AMA RECORDING SYSTEMS

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\*\*\*GRAPHIC GOES HERE

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EXHIBIT 2

MASTER EXTERNAL LABEL  
SW-4192A, B, C, AND D

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Form SW-4192-A

Used for ESS No. 1 and TSPS  
Color Ink - Blue

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Form SW-4192-B  
Used for ESS No. 2 and MTR  
Color Ink Green

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Form SW-4192-C  
Used for CAMA-C and AMARC  
Color Ink - Red

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Form SW-4192-D  
Used for ESS No. 4 and ESS No. 1A  
Color Ink - Orange

\*\*\*GRAPHIC GOES HERE

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EXHIBIT 3

Reference Label - SW-4193

SWBT FORM SW-4193  
TAPE ID NO. 2-69

OFC. TAPE ID.

CREATE DATE

This label is placed on the take-up  
reel in the central office when the two reel  
procedure is used. The label is to remain  
on the reel until it has been returned to  
the central office, empty of tape.

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EXHIBIT 4

AMA TAPE TRANSMITTAL FORM

SW 5233 A  
(10-84)

Southwestern Bell Telephone      AMA MAGNETIC TAPE TRANSMITTAL

CO BLDG. \_\_\_\_\_ CAMA-C       TSPS  ESS NO. 1

OFFICE I.O. \_\_\_\_\_      MTR  ESS NO. 2

OTHER \_\_\_\_\_

(TYPE)

TIME CHANGE? DATE \_\_\_\_ TIME \_\_\_\_

DATE(S) COVERED    TAPE IDENTITY NO.    TRANS-    - TROUBLE INFORMATION -  
PORT    DATE AND TIME OF TRANSFER

ACTIVE

STANDBY

REPORT ON TROUBLE:

SUPERVISOR      TELE. NO.

ACCOUNTING: DATE/TIME RECEIPT      PROCESSED

CALL COUNT CONTROL      AL011-831

CNO41-071

INITIALS

CO TAPE READ FAILURES

OTHER PROCESSING PROBLEMS

RETENTION PERIOD - 6 MONTHS    ACCOUNTING COPY    OFFICIAL FILE COPY IF RED;  
RETENTION

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EXHIBIT 5

AMA CASE TRANSMITTAL FORM

SOUTHWESTERN BELL TELEPHONE  
AMA CASE TRANSMITTAL  
ST. LOUIS AREA

FROM R.G.

ADDRESS

DELIVER TO: ST. LOUIS DATA CENTER TAPE LIBRARY  
14 SOUTH FOURTH STREET ROOM 325

(ALL PERSONNEL HANDLING THIS CASE SIGN NAME, DATE & TIME)

TAPE # TAPE #

TAPE # TAPE #

TAPE # TAPE #

CASE SEAL #

NAME DATE TIME

PERSON PREPARING CASE

DRIVER MAKING PICK UP

MEET DRIVER

DRIVER MAKING DELIVERY

PERSON ACCEPTING CASE

COMMENTS

ORIGINAL (WHITE) TO COMPTROLLERS  
2ND (CANARY) TO MAIL SERVICE  
3RD (PINK) TO CENTRAL OFFICE