NO. 3 ESS TERMINAL TRANSLATIONS FOR NO. 1A AMARC

BILLING SYSTEMS

SUPPLEMENTARY INFORMATION—CENTRAL OFFICES

1. GENERAL

1.01 This section is issued to furnish a description of the No. 3 Electronic Switching System (ESS) terminal translations made by the Automatic Message Accounting Recording System (AMARS). This section is valid through generic 2 for the No. 1A Automatic Message Accounting Recording Center (AMARC).

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

1.03 The title for each figure includes a number in parentheses which identifies the paragraph in which the figure is referenced.

1.04 A No. 3 ESS terminal transmits billing data to the AMARC in a triple entry format consisting of an initial entry, answer, and disconnect. When any billing data are received by the AMARC, it is loaded into the Input Assembly Table (IAT) associated with the channel that transmitted the data. While the data are in the IAT, the sensor type of the channel is determined. When it is triple entry (3ESS), the billing data are loaded into

the Call Record Register (CRR) associated with the junctor number transmitted with the data. The AMARC determines the location in memory of the CRR page for the channel from the Call Record Register Page Descriptor Table.

1.05 When a 3ESS initial entry message is received, it is loaded into the CRR and stored. When an answer message is received, the CRR record is changed to reflect that the answer message was received. When the disconnect message is received, the CRR record is changed to show that the disconnect was received and the call record data are moved to the Tape Output Register (TOR). The call duration is computed and is added to the call record data as it is moved to the TOR. Call records are temporarily stored in the TOR and then unloaded by order of disconnect time into the Tape Output Block (TOBLK). As the call record is moved from the TOR to TOBLK, the translation, which determines the NPA of the calling party, is performed by the AMARC.

1.06 The expanded TOBLK data are then placed into the Tape Output Buffer (TOB) in a format acceptable for the call type and tape drive input. Parity is then computed. When a TOB becomes full, which may imply processing more than one call, it is written onto magnetic tape. The following paragraphs describe the translations the AMARC performs for the No. 3 ESS entities. To complete the required translations, the AMARC reads the various NPD tables. To find the location in memory of each Entity Nongeneric Parameter Data (ENPD) table, the AMARC consults the Entity Nongeneric Parameter Data Directory and the Entity Page Descriptor Table.

2. DETERMINATION OF CALLING TELEPHONE NUMBER

2.01 3ESS entities send call record details to the AMARC along with a one-digit compressed

calling NPA code. The AMARC consults the Calling NPA table and determines the expanded calling NPA for the given NPA code. Determination of the calling number is complete.

3. DETERMINATION OF CALL FORMAT

3.01 Comptroller's Letter M284A defines the call details that are to be included in call records for various call types. Every call that is recorded by any automatic recording system must conform to a call format defined in the comptroller's letter. The AMARC determines the appropriate call type for each 3ESS call and formats accordingly, conforming to the comptroller's letter. Calls may be formatted as:

- Bulk Billed Call Type 54

- Detail Billed Call Type 57

- Complaint Observed Call Type 55.

3.02 Figure 1 illustrates the process by which the AMARC determines the call format to use for a particular 3ESS call. The AMARC first checks to see if a 3ESS call is designated as a complaint observed call. If the call is designated as a complaint observed call, then no further checks are required. The call format is complete. If the call is not designated as a complaint observed call, the AMARC searches the Special Number Table (SPN) for the calling telephone number. This table lists 3ESS telephone numbers that require special call formatting treatment. When the telephone number is in the SPN Table, the call is formatted according to the call formatting instructions specified in the SPN Table. Call formats for 3ESS may be as follows:

- Complaint Observing

- Detail Billing.

See Section 201-900-079 for complete details.

The call format determination is complete. If the calling number is not in the SPN Table, the AMARC determines the detail billing option for the 3ESS entity through the AMARC Identification Table. See Section 201-900-076 for complete details.

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│ AMARC HAS:      │              ╱    ╲     NO             ╱    ╲      NO                  ╱    ╲       NO         │ FORMAT   │
│ CALLING NO.     │            ╱COMPLAINT╲   ──→         ╱ CALLING ╲     ──→             ╱ DETAIL  ╲      ──→      │ OF CALL  │
│ CGNPA CODE      │──→        ╱ OBSERVED  ╲             ╱ NUMBER IN ╲                   ╱ BILLING   ╲              │ BULK     │
│ MBI             │          ╱   CALL      ╲           ╱SPECIAL NUMBER╲                ╱ OPTION IN   ╲             │ BILLED   │
│ JUNCTOR NO.     │          ╲    ?        ╱           ╲   TABLE      ╱         ╲AMARC IDENTIFICATION╱             └──────────┘
│ CALLED NO       │           ╲          ╱             ╲    ?       ╱                  ╲   TABLE    ╱
│ SERVICE FEATURES│            ╲        ╱               ╲          ╱                    ╲    ?     ╱
└─────────────────┘              ╲    ╱                   ╲      ╱                        ╲      ╱
                                  ╲  ╱                      ╲  ╱                            ╲  ╱
                                   ╲╱                        ╲╱                              ╲╱
                                 │ YES                     │ YES                           │ YES
                                 ↓                         ↓                               ↓
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| AMARC HAS:
CALLING NO.
CGNPA CODE
MBI
JUNCTOR NO.
CALLED NO
SERVICE FEATURES | COMPLAINT OBSERVED CALL ? | CALLING NUMBER IN SPECIAL NUMBER TABLE ? | DETAIL BILLING OPTION IN AMARC IDENTIFICATION TABLE ? | FORMAT OF CALL BULK BILLED |

FORMAT OF CALL COMPLAINT OBSERVING

FORMAT OF CALL IS PER SPN TABLE FORMATTING INSTRUCTIONS

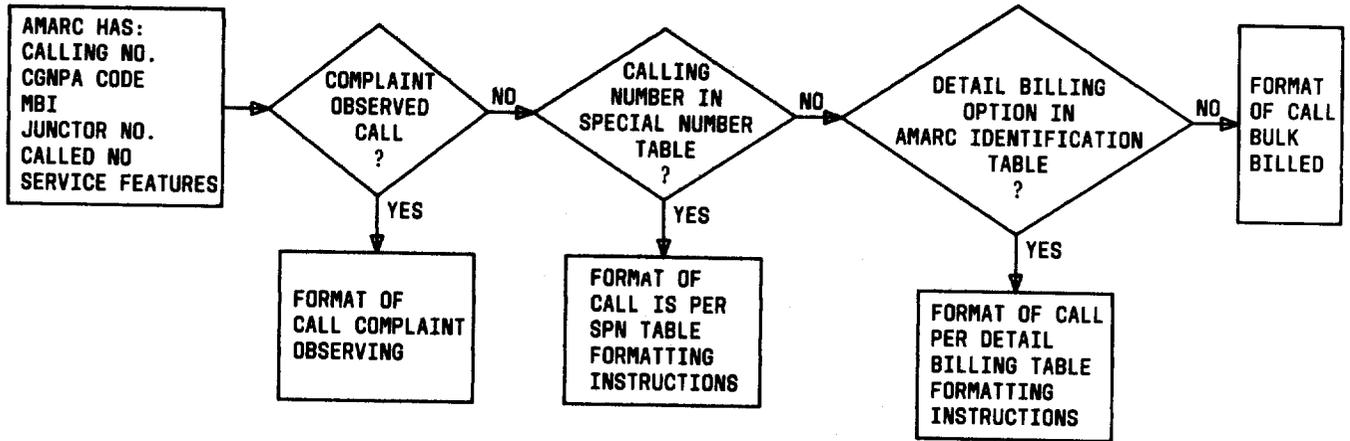FORMAT OF CALL PER DETAIL BILLING TABLE FORMATTING INSTRUCTIONS

Fig. 1—Determination of Call Format by No. 1A AMARC for No. 3 ESS Offices (3.02)