

RSC-11-4

OLD MARK III

DSN INTERFACES  
OCCULTATION DATA ASSEMBLY  
WBD PLAYBACK INTERFACE

(Insert this modular document in 820-13; Rev. A)

EFFECTIVE DATE: 1 July 1981

Effective Service: Pioneer Venus  
and Voyager

Initial Release Date: 1 July 1981

Approved by:

*B. J. Berchler*

(DSN S/E)

*Jamie S. Brunlee*

(CDE)

*Lyella J. Luster*

(SCOE)

A. PURPOSE.

This document defines and controls the formats of the Radio Science Original Data Record (ODR) and Intermediate Data Record (IDR)\* wideband data (WBD) blocks generated and transmitted by the DSS Radio Science Subsystem (DRS) Occultation Data Assembly (ODA).

B. REVISION AND CONTROL.

Revisions or changes to information herein presented may be initiated according to the procedures in Section I of this document.

C. GENERAL INFORMATION.

The ODA generates a stream of data blocks which includes WBD block headers and endings. These blocks, disregarding their WBD headers and endings, comprise complete ODA records whose length depends on the Converter and sample rate being used. The records are of four types. The two narrow band records use either eight bits of Analog-to-Digital (A-D), or twelve bits of A-D data. The narrow band data are gathered from four converters

\*Radio Science IDRs should not be confused with the IDRs which are generated at the GCF and may contain Radio Science data.

designated A-D 1 through A-D 4. Table RSC-11-4-1 is a tabulation of the possible narrow band 8- and 12-bit formats, medium band formats, and ODA record lengths. Records that have been converted to WBD blocks are used to form Intermediate Data Record (IDR) tapes using two WBD blocks per IDR record (reference module IDR-12-1 of this document and Figure RSC-11-4-1A, B, C, and D).

D. DATA BLOCK FORMAT AND FIELDS.

1. Narrow Band 8-Bit Conversion Blocks.

The format for the narrow band 8-bit conversion blocks is shown in Figure RSC-11-4-2A, B, and C. The content of the blocks is as follows:

a. First Block.

Words 1 through 7, bits 1 through 16, and Word 8, bits 1 through 8, comprise the standard 4800-bit WBD block header as defined in module OPS-6-6 of this document, with the following UDT and DDT assignments:

- UDT: Always  $61_8$  = Radio Science Subsystem
- DDT:  $64_8$  = Radio Science Narrow Band 8-Bit Data Sample
- $70_8$  = Radio Science Narrow Band 12-Bit Data Sample
- $76_8$  = Radio Science Medium Band Data Sample
- $102_8$  = Radio Science Medium Band POCA Data

Word 8, bits 9 and 10. Block Subtype:

|  | <u>Bit 9</u> | <u>Bit 10</u> |
|--|--------------|---------------|
| First Block of Pass (Full)                                       | 0            | 1             |
| Continuation Block (Full)  | 0            | 0             |
| Continuation Block (Partial) or<br>(Last block per tape record)  | 1            | 0             |
| Last Block of Pass (No Data or<br>first block of pass (Partial)) | 1            | 1             |

Word 8, bit 11. Start of Second = 1

Table RSC-11-4-1. Block Format Tabulation

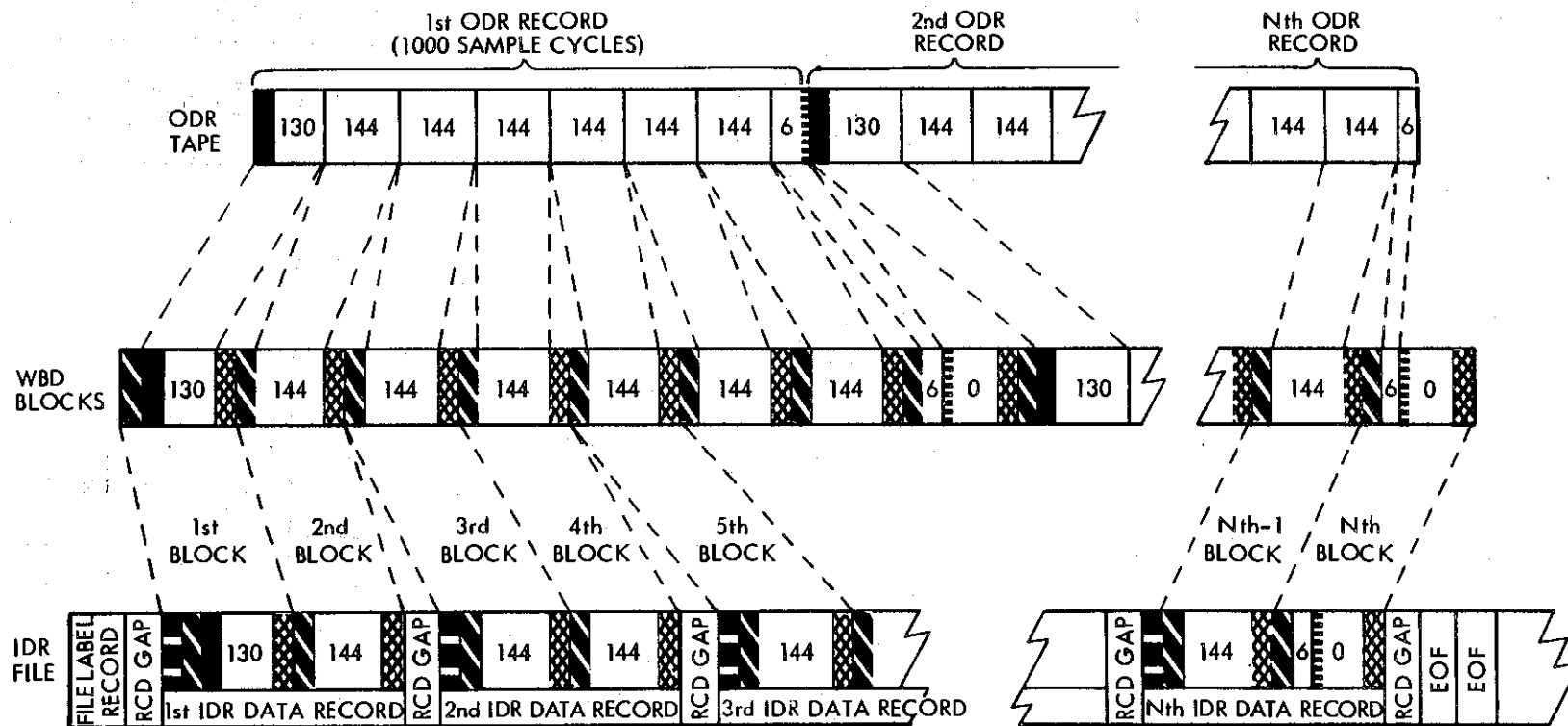
| Conversion Type                 | Converter Samples Per Second | Number of Sample Cycles** Per ODR Record*** | Number of Words (Blocks) Per ODR Record** | Reference Section of This Doc. | Reference Figures of This Doc. |
|---------------------------------|------------------------------|---|---|--------------------------------|--------------------------------|
| Narrow band<br>8-bit<br>sample  | 20 k<br>10 k<br>5 k<br>2 k   | 1000  | 2045 (8)                                  | D.1                            | RSC-11-4-2<br>A, B, & C        |
|                                 | 1 k*                         | 500   | 1045 (5)                                  |                                |                                |
|                                 | 200*                         | 100   | 245 (1)                                   |                                |                                |
| Narrow band<br>12-bit<br>Sample | 20 k<br>5 k<br>2 k           | 500   | 1545 (7)                                  | D.2                            | RSC-11-4-3<br>A, B, & C        |
|                                 | 1 k*                         | 250   | 795 (3)                                   |                                |                                |
|                                 | 200*                         | 50  | 195 (1)                                   |                                |                                |
| Medium band<br>Reduced Data     | N/A                          | N/A   | 2528 (9)                                  | D.3                            | RSC-11-4-4<br>A, B, & C        |
| Medium band<br>POCA Data        | N/A                          | N/A   | 228 (1)                                   | D.4                            | RSC-11-4-5                     |

\*Effective

\*\*Four samples per cycle (A-D1 through A-D4)

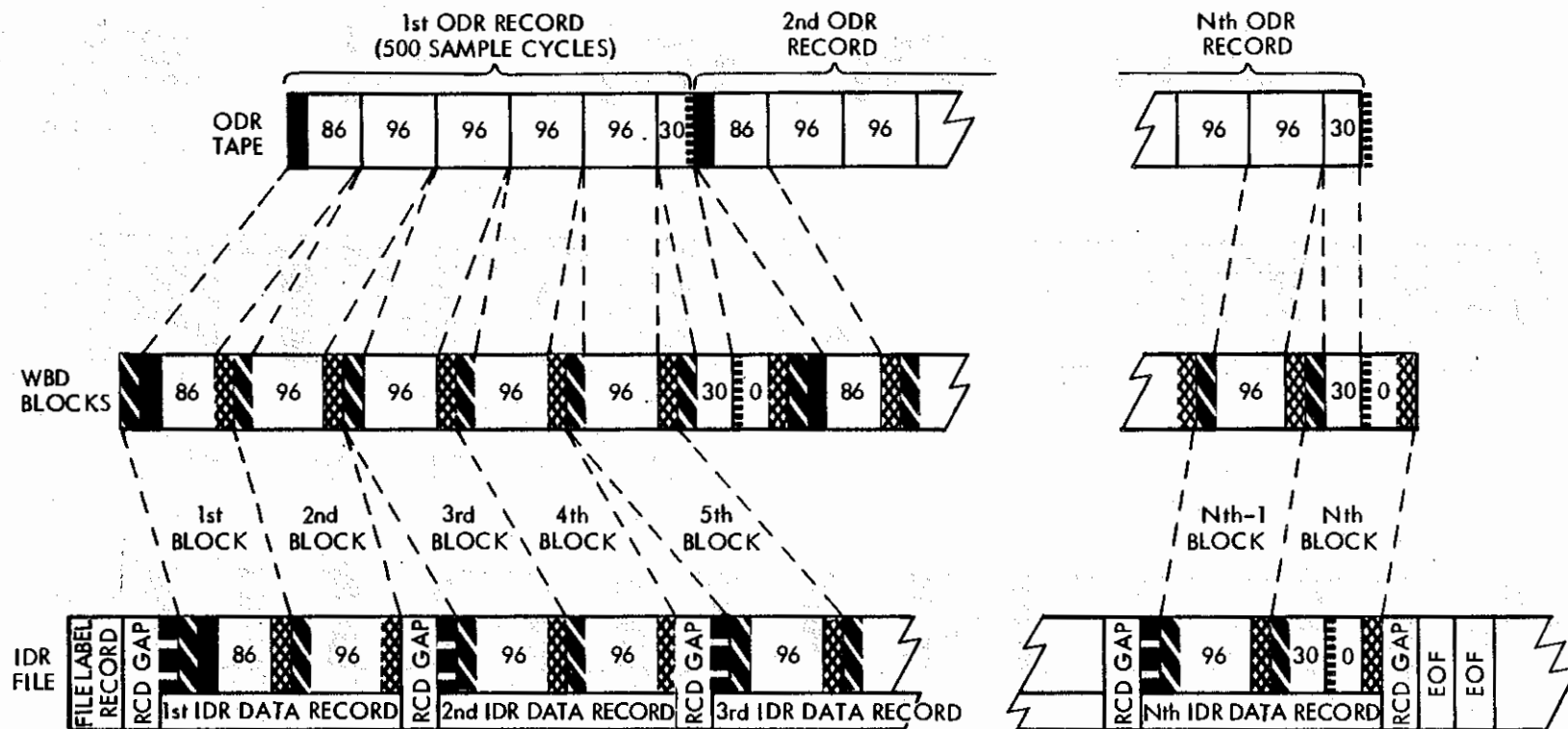
\*\*\*Refer to Document 820-14 Module 5-013 and Figure RSC-11-4-1

820-13; Rev. A  
RSC-11-4



820-13; Rev. A  
RSC-11-4

Figure RSC-11-4-1A. Example of ODR Tape to IDR File Processing (8-Bit Sample)



LEGEND:

- IDR DATA RECORD HEADER
- GCF HEADER
- GCF ERROR CORRECTION CONTROL
- ODR DATA RECORD HEADER
- PPM DATA
- NUMBERS INDICATE NUMBERS OF SAMPLE CYCLES**

Figure RSC-11-4-1B. Example of ODR Tape to IDR File Processing (12-Bit Sample)

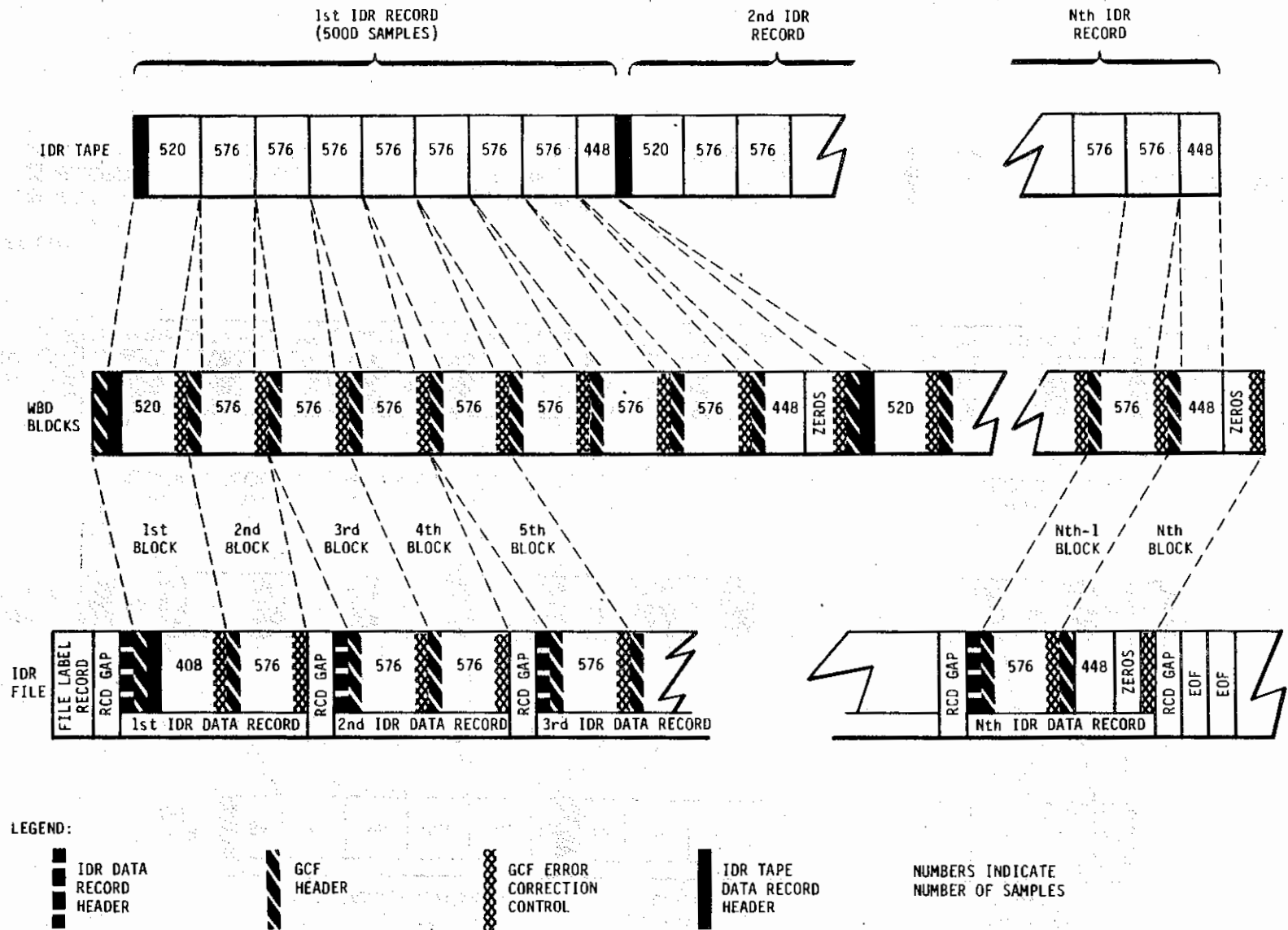
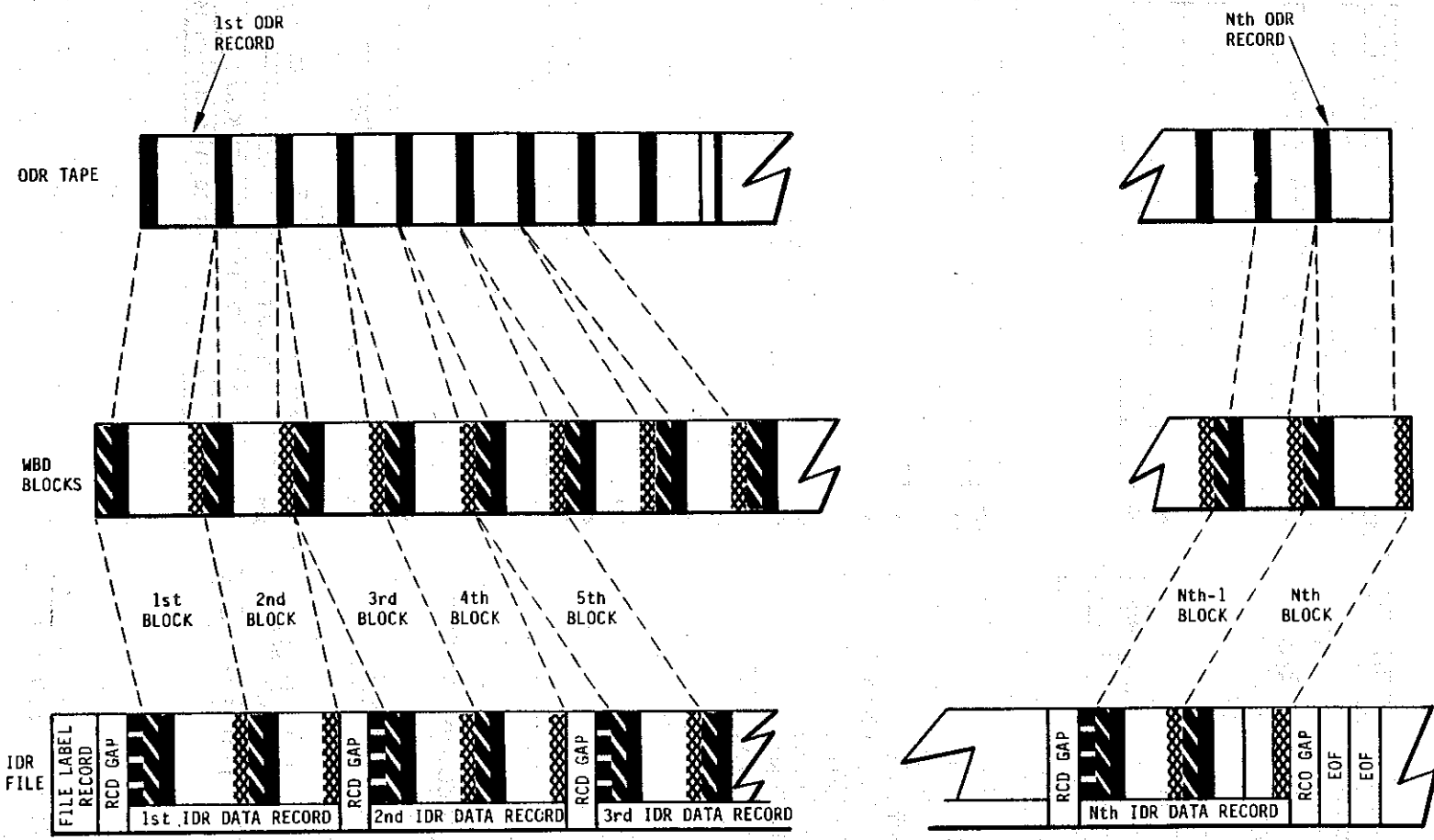


Figure RSC-11-4-1C. Example of Medium Band IDR Tape to IDR File Processing

820-13; Rev. A  
RSC-11-4



LEGEND:

- 

IDR DATA RECORD  
HEADER
- 

GCF  
HEADER
- 

GCF ERROR  
CORRECTION  
CONTROL
- 

ODR DATA  
RECORD  
HEADER

Figure RSC-11-4-1D. Example of Medium Band POCA Data ODR Tape to IDR File Processing

| WORD | BIT                                  |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
|------|--------------------------------------|---|---|---|-----------------|---|---|---|------------------------|----|----|----|--------------------|----|----|----|
|      | 1                                    | 2 | 3 | 4 | 5               | 6 | 7 | 8 | 9                      | 10 | 11 | 12 | 13                 | 14 | 15 | 16 |
| 1    | SYNC CODE                            |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 2    | SYNC CODE                            |   |   |   |                 |   |   |   | SOURCE CODE            |    |    |    |                    |    |    |    |
| 3    | DESTINATION CODE                     |   |   |   |                 |   |   |   | BLOCK FORMAT CODE      |    |    |    |                    |    |    |    |
| 4    | GDD                                  |   |   |   | UDT CODE        |   |   |   | DDT CODE               |    |    |    |                    |    |    |    |
| 5    | S/C No.                              |   |   |   |                 |   |   |   | TIME                   |    |    |    |                    |    |    |    |
| 6    | TIME                                 |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 7    | DAY OF YEAR                          |   |   |   |                 |   |   |   | BLOCK                  |    |    |    |                    |    |    |    |
| 8    | SERIAL NUMBER                        |   |   |   |                 |   |   |   | BLK No. OF THIS RECORD |    |    |    |                    |    |    |    |
| 9    | V S E C                              |   |   |   | COMPRESS FACTOR |   |   |   | TAPE NUMBER            |    |    |    |                    |    |    |    |
| 10   | RECORD NUMBER                        |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 11   | RECORD LENGTH                        |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 12   | S/C NUMBER                           |   |   |   |                 |   |   |   | SOURCE                 |    |    |    |                    |    |    |    |
| 13   | DAY OF YEAR                          |   |   |   |                 |   |   |   | 0 0 0 0 0 0 0 0        |    |    |    |                    |    |    |    |
| 14   | TIME OF DAY                          |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 15   | PREDICT SET ID                       |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 16   | PREDICT SET ID                       |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 17   | POCA STATUS                          |   |   |   |                 |   |   |   | POCA FREQUENCY         |    |    |    |                    |    |    |    |
| 18   | POCA FREQUENCY                       |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 19   | POCA FREQUENCY                       |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 20   | POCA FREQUENCY                       |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 21   | 0 0 0 0 0 0 0 0                      |   |   |   |                 |   |   |   | POCA FREQ RATE         |    |    |    |                    |    |    |    |
| 22   | POCA FREQ RATE                       |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 23   | CONVERTER SAMPLE RATE                |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 24   | SIGNAL SELECT                        |   |   |   |                 |   |   |   | 'N' COUNTER            |    |    |    |                    |    |    |    |
| 25   | FREQ COUNTER No. 1 CUMULATIVE $\phi$ |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 26   | ↓                                    |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 27   | ↑                                    |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 28   | FREQ COUNTER No. 2 CUMULATIVE $\phi$ |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 29   | ↓                                    |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 30   | ↑                                    |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 31   | TEST SIGNAL                          |   |   |   | SAMPLE CONTROL  |   |   |   | COUNTER No. 1 MODE     |    |    |    | COUNTER No. 2 MODE |    |    |    |
| 32   | SPARE                                |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 33   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0      |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 34   | '20' COUNTER                         |   |   |   |                 |   |   |   | '20' COUNTER           |    |    |    |                    |    |    |    |
| 35   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0      |   |   |   |                 |   |   |   |                        |    |    |    |                    |    |    |    |
| 36   | 0 1 1 1                              |   |   |   | CONVERTER MODE  |   |   |   | 0 1 1 1                |    |    |    | CONVERTER MODE     |    |    |    |
| 37   | A-D1                                 |   |   |   |                 |   |   |   | A-D2                   |    |    |    |                    |    |    |    |

| WORD | BIT                               |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
|------|-----------------------------------|---|---|---|--------|---|---|---|------|----|----|----|----|----|----|----|
|      | 1                                 | 2 | 3 | 4 | 5      | 6 | 7 | 8 | 9    | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 38   | A-D3                              |   |   |   |        |   |   |   | A-D4 |    |    |    |    |    |    |    |
| 39   | CONTINUATION OF A-D1 THROUGH A-D4 |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 40   | DATA SAMPLES THROUGH WORD 296     |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 41   |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 42   |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 43   |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 44   |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 45   |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 228  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 229  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 230  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 231  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 232  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 233  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 234  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 235  | A-D1                              |   |   |   |        |   |   |   | A-D2 |    |    |    |    |    |    |    |
| *236 | A-D3                              |   |   |   |        |   |   |   | A-D4 |    |    |    |    |    |    |    |
| 237  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 238  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 239  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 240  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 241  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 242  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 243  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 294  |                                   |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 295  | A-D1                              |   |   |   |        |   |   |   | A-D2 |    |    |    |    |    |    |    |
| 296  | A-D3                              |   |   |   |        |   |   |   | A-D4 |    |    |    |    |    |    |    |
| 297  | ZEROS                             |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 298  | SAMPLE RATE + 100                 |   |   |   | UNUSED |   |   |   | ESC  |    |    |    |    |    |    |    |
| 299  | ERROR POLYNOMIAL CODE             |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
| 300  | ERROR POLYNOMIAL CODE (Cont.)     |   |   |   |        |   |   |   |      |    |    |    |    |    |    |    |
|      | 1                                 | 2 | 3 | 4 | 5      | 6 | 7 | 8 | 9    | 10 | 11 | 12 | 13 | 14 | 15 | 16 |

- ▲ = FIXED POINT
- = BLOCK SUBTYPE (BITS 9 AND 10)
- S = START OF SECOND
- \* LAST DATA SAMPLE OF 200-HZ RATE FOLLOWED BY THE 17-WORD PPM DATA WORDS WITH THE REMAINDER OF BLOCK THROUGH WORD 297 FILLED WITH ZEROS

Figure RSC-11-4-2A. First Block of 8-Bit Narrow Band Record

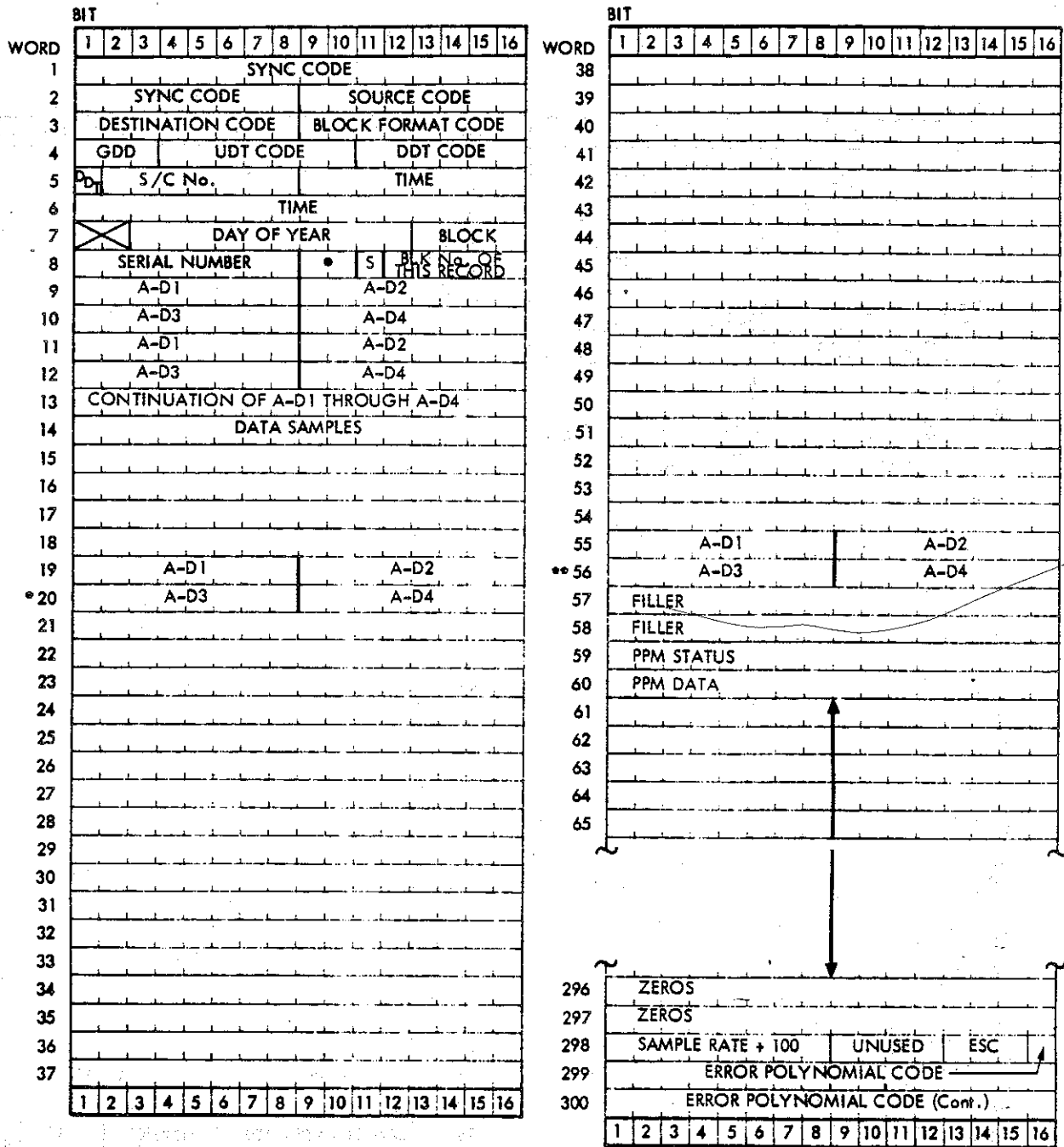


| WORD | 1                                      | 2 | 3 | 4 | 5        | 6 | 7 | 8 | 9                 | 10 | 11                     | 12 | 13 | 14 | 15 | 16 |
|------|--|---|---|---|----------|---|---|---|-------------------|----|------------------------|----|----|----|----|----|
| 1    | SYNC CODE                              |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 2    | SYNC CODE                              |   |   |   |          |   |   |   | SOURCE CODE       |    |                        |    |    |    |    |    |
| 3    | DESTINATION CODE                       |   |   |   |          |   |   |   | BLOCK FORMAT CODE |    |                        |    |    |    |    |    |
| 4    | GDD                                    |   |   |   | UDT CODE |   |   |   | DDT CODE          |    |                        |    |    |    |    |    |
| 5    | S/C No.                                |   |   |   |          |   |   |   | TIME              |    |                        |    |    |    |    |    |
| 6    | TIME                                   |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 7    | DAY OF YEAR                            |   |   |   |          |   |   |   |                   |    | BLOCK                  |    |    |    |    |    |
| 8    | SERIAL NUMBER                          |   |   |   |          |   |   |   | • [ S ]           |    | BLK No. OF THIS RECORD |    |    |    |    |    |
| 9    | A-D1                                   |   |   |   | A-D2     |   |   |   |                   |    |                        |    |    |    |    |    |
| 10   | A-D3                                   |   |   |   | A-D4     |   |   |   |                   |    |                        |    |    |    |    |    |
| 11   | CONTINUATION OF A-D1 THROUGH A-D4 DATA |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 12   | DATA SAMPLES THROUGH WORD 296          |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 13   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 14   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 15   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 16   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 17   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 18   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 19   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 20   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 21   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 22   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 23   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 24   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 25   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 26   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 27   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 28   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 29   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 30   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 31   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 32   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 33   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 34   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 35   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 36   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
| 37   |  |   |   |   |          |   |   |   |                   |    |                        |    |    |    |    |    |
|      | 1                                      | 2 | 3 | 4 | 5        | 6 | 7 | 8 | 9                 | 10 | 11                     | 12 | 13 | 14 | 15 | 16 |

| WORD | 1                             | 2 | 3 | 4 | 5    | 6 | 7 | 8 | 9      | 10 | 11 | 12 | 13  | 14 | 15 | 16 |
|------|-------------------------------|---|---|---|------|---|---|---|--------|----|----|----|-----|----|----|----|
| 38   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 39   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 40   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 41   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 42   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 43   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 44   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 45   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 46   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 47   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 48   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 49   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 50   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 51   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 52   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 53   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 54   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 55   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 56   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 57   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 58   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 59   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 60   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 61   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 62   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 63   |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 294  |                               |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 295  | A-D1                          |   |   |   | A-D2 |   |   |   |        |    |    |    |     |    |    |    |
| 296  | A-D3                          |   |   |   | A-D4 |   |   |   |        |    |    |    |     |    |    |    |
| 297  | ZEROS                         |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 298  | SAMPLE RATE + 100             |   |   |   |      |   |   |   | UNUSED |    |    |    | ESC |    |    |    |
| 299  | ERROR POLYNOMIAL CODE         |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
| 300  | ERROR POLYNOMIAL CODE (Cont.) |   |   |   |      |   |   |   |        |    |    |    |     |    |    |    |
|      | 1                             | 2 | 3 | 4 | 5    | 6 | 7 | 8 | 9      | 10 | 11 | 12 | 13  | 14 | 15 | 16 |

• = BLOCK SUBTYPE (BITS 9 AND 10)  
S = START OF SECOND

Figure RSC-11-4-2B. Middle Blocks of 8-Bit Narrow Band Record



- \* LAST DATA SAMPLE OF 2K SAMPLES PER SECOND 8-BIT BLOCK FOLLOWED BY THE 17-WORD PPM DATA WORDS WITH REMAINDER OF BLOCK THROUGH WORD 297 FILLED WITH ZEROS
- \*\* LAST DATA SAMPLE OF 1K SAMPLES PER SECOND 8-BIT BLOCK FOLLOWED BY THE 17-WORD PPM DATA WORDS WITH REMAINDER OF BLOCK THROUGH WORD 297 FILLED WITH ZEROS
- = BLOCK SUBTYPE (BITS 9 AND 10)
- S = START OF SECOND

Figure RSC-11-4-2C. Last Block of 8-Bit Narrow Band Record

Word 8, bits 12 through 16. Block Number of This Record (NBLK).

Number of WBD blocks within an ODR tape record.

NBLK is reset to 0 for each WBD block containing a tape header.

Bits 11 through 16 set to 63 (111111) for Last Block of Pass.

Word 9 through Word 296. Contains the first 204 words of the narrow band IDR record (see RSC-11-9). NOTE: Word 236 is the last data sample for 200-Hz rate, followed by the 17-word PPM data block.

Word 297. Zeros.

Word 298, bits 1 through 8. Sample Rate divided by 100 (binary representation).

Word 298, bits 9 through 12. Unused.

Word 298, bits 13 through 16. GCF Error Status Code and first bit of the 33-bit GCF Error Polynomial Code as defined in module OPS-6-6 of this document.

Words 299 and 300, bits 1 through 16. Last 32 bits of the 33-bit GCF Error Polynomial Code.

b. Middle Blocks.

Words 1 through 8. Same as first block.

Successive 288-word parts of the ODR Record (see RSC-11-9).

Words 9 through 296. Continuation of data samples (A-D1 through A-D4).

Word 297. Zeros.

Words 298 through 300. Same as first block.

c. Last Block.

Words 1 through 8. Same as first block.

Words 9 through 297. Continuation of data samples (A-D1 through A-D4) through Word 20 or 56, dependent on rate utilized, followed by the 17-word PPM data block. The remainder of the block through Word 297 is filled with zeros.

Words 298 through 300. Same as first block.

2. Narrow Band 12-Bit Conversion Blocks.

The format for the 12-bit conversion blocks is shown in Figures RSC-11-4-3A, B, and C. The content of the blocks is as follows:

a. First Block.

Words 1 through 8. Identical to Words 1 through 8 of first narrow band 8-bit conversion block (reference Table RSC-11-4-1 for Record Length).

Words 9 through 294. Contains the first 288 words of the narrow band ODR Record (see RSC-11-9).

NOTE: Word 186 is the last data sample for 200-Hz rate, followed by the 17-word PPM data block. The last block will contain the last 9 words of the PPM part.

Words 295 through 297. Zeros.

Words 298 through 300. Identical to Words 298 through 300 of first narrow band 8-bit conversion block.

b. Middle Blocks.

Words 1 through 8. Same as first block.

Words 9 through 294. Continuation of data samples (A-D1 through A-D4 LSBs and MSBs). Successive 286 word parts of the ODR Record (see RSC-11-9).

| WORD | BIT                                  |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
|------|--------------------------------------|---|---|---|-----------------|---|---|---|--------------------|----|-----------------|----|------------------------|----|----|----|--|
|      | 1                                    | 2 | 3 | 4 | 5               | 6 | 7 | 8 | 9                  | 10 | 11              | 12 | 13                     | 14 | 15 | 16 |  |
| 1    | SYNC CODE                            |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 2    | SYNC CODE                            |   |   |   |                 |   |   |   | SOURCE CODE        |    |                 |    |                        |    |    |    |  |
| 3    | DESTINATION CODE                     |   |   |   |                 |   |   |   | BLOCK FORMAT CODE  |    |                 |    |                        |    |    |    |  |
| 4    | GDD                                  |   |   |   | UDT CODE        |   |   |   | DDT CODE           |    |                 |    |                        |    |    |    |  |
| 5    | S/C No.                              |   |   |   |                 |   |   |   | TIME               |    |                 |    |                        |    |    |    |  |
| 6    | TIME                                 |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 7    | DAY OF YEAR                          |   |   |   |                 |   |   |   |                    |    | BLOCK           |    |                        |    |    |    |  |
| 8    | SERIAL NUMBER                        |   |   |   |                 |   |   |   |                    |    | •               | S  | BLK No. OF THIS RECORD |    |    |    |  |
| 9    | V S E C                              |   |   |   | COMPRESS FACTOR |   |   |   | TAPE NUMBER        |    |                 |    |                        |    |    |    |  |
| 10   | RECORD NUMBER                        |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 11   | RECORD LENGTH                        |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 12   | S/C NUMBER                           |   |   |   |                 |   |   |   | SOURCE             |    |                 |    |                        |    |    |    |  |
| 13   | DAY OF YEAR                          |   |   |   |                 |   |   |   |                    |    | 0 0 0 0 0 0 0 0 |    |                        |    |    |    |  |
| 14   | TIME OF DAY                          |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 15   | PREDICT SET ID                       |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 16   | PREDICT SET ID                       |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 17   | POCA STATUS                          |   |   |   |                 |   |   |   | POCA FREQUENCY     |    |                 |    |                        |    |    |    |  |
| 18   | POCA FREQUENCY                       |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 19   | POCA FREQUENCY                       |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 20   | POCA FREQUENCY                       |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 21   | 0 0 0 0 0 0 0 0                      |   |   |   |                 |   |   |   | POCA FREQ RATE     |    |                 |    |                        |    |    |    |  |
| 22   | POCA FREQ RATE                       |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 23   | CONVERTER SAMPLE RATE                |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 24   | SIGNAL SELECT                        |   |   |   |                 |   |   |   | 'N' COUNTER        |    |                 |    |                        |    |    |    |  |
| 25   | FREQ COUNTER No. 1 CUMULATIVE $\phi$ |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 26   | ↓                                    |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 27   | ↑                                    |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 28   | FREQ COUNTER No. 2 CUMULATIVE $\phi$ |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 29   | ↓                                    |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 30   | ↑                                    |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 31   | TEST SIGNAL                          |   |   |   | SAMPLE CONTROL  |   |   |   | COUNTER No. 1 MODE |    |                 |    | COUNTER No. 2 MODE     |    |    |    |  |
| 32   | SPARE                                |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 33   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0      |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 34   | '20' COUNTER                         |   |   |   |                 |   |   |   | '20' COUNTER       |    |                 |    |                        |    |    |    |  |
| 35   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0      |   |   |   |                 |   |   |   |                    |    |                 |    |                        |    |    |    |  |
| 36   | 0 1 1 1                              |   |   |   | CONVERTER MODE  |   |   |   | 0 1 1 1            |    |                 |    | CONVERTER MODE         |    |    |    |  |
| 37   | A-D1 (LSB)                           |   |   |   | A-D2 (LSB)      |   |   |   | A-D3 (LSB)         |    |                 |    | A-D4 (LSB)             |    |    |    |  |
|      | 1                                    | 2 | 3 | 4 | 5               | 6 | 7 | 8 | 9                  | 10 | 11              | 12 | 13                     | 14 | 15 | 16 |  |

| WORD  | BIT                                     |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
|-------|---|---|---|---|------------|---|---|---|------------|----|----|----|------------|----|----|----|
|       | 1                                       | 2 | 3 | 4 | 5          | 6 | 7 | 8 | 9          | 10 | 11 | 12 | 13         | 14 | 15 | 16 |
| 38    | A-D1 (MSB)                              |   |   |   |            |   |   |   | A-D2 (MSB) |    |    |    |            |    |    |    |
| 39    | A-D3 (MSB)                              |   |   |   |            |   |   |   | A-D4 (MSB) |    |    |    |            |    |    |    |
| 40    | A-D1 (LSB)                              |   |   |   | A-D2 (LSB) |   |   |   | A-D3 (LSB) |    |    |    | A-D4 (LSB) |    |    |    |
| 41    | A-D1 (MSB)                              |   |   |   |            |   |   |   | A-D2 (MSB) |    |    |    |            |    |    |    |
| 42    | A-D3 (MSB)                              |   |   |   |            |   |   |   | A-D4 (MSB) |    |    |    |            |    |    |    |
| 43    | CONTINUATION OF A-D1 THROUGH A-D4 (MSB) |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 44    | AND (LSB) DATA SAMPLES THROUGH WORD 295 |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 45    |   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 46    |   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 47    |   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 48    |   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 49    |   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 184   | A-D1 (LSB)                              |   |   |   | A-D2 (LSB) |   |   |   | A-D3 (LSB) |    |    |    | A-D4 (LSB) |    |    |    |
| 185   | A-D1 (MSB)                              |   |   |   |            |   |   |   | A-D3 (MSB) |    |    |    |            |    |    |    |
| * 186 | A-D2 (MSB)                              |   |   |   |            |   |   |   | A-D4 (MSB) |    |    |    |            |    |    |    |
| 187   |   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 188   |   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 189   |   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 190   |   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 191   |   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 192   |   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 292   | A-D1 (LSB)                              |   |   |   | A-D2 (LSB) |   |   |   | A-D3 (LSB) |    |    |    | A-D4 (LSB) |    |    |    |
| 293   | A-D1 (MSB)                              |   |   |   |            |   |   |   | A-D2 (MSB) |    |    |    |            |    |    |    |
| 294   | A-D3 (MSB)                              |   |   |   |            |   |   |   | A-D4 (MSB) |    |    |    |            |    |    |    |
| 295   | ZEROS                                   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 296   | ZEROS                                   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 297   | ZEROS                                   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 298   | SAMPLE RATE + 100                       |   |   |   |            |   |   |   | UNUSED     |    |    |    | ESC        |    |    |    |
| 299   | ERROR POLYNOMIAL CODE                   |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 300   | ERROR POLYNOMIAL CODE (Cont.)           |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
|       | 1                                       | 2 | 3 | 4 | 5          | 6 | 7 | 8 | 9          | 10 | 11 | 12 | 13         | 14 | 15 | 16 |

- ▲ = FIXED POINT
- = BLOCK SUBTYPE (BITS 9 AND 10)
- S = START OF SECOND
- \* LAST DATA SAMPLE OF 200-HZ 12-BIT BLOCK FOLLOWED BY 8 WORDS OF THE PPM DATA PART AND THE NEXT BLOCK HAS THE LAST 9 WORDS OF THE PPM PART, WITH THE REMAINDER OF BLOCK THROUGH WORD 297 FILLED WITH ZEROS

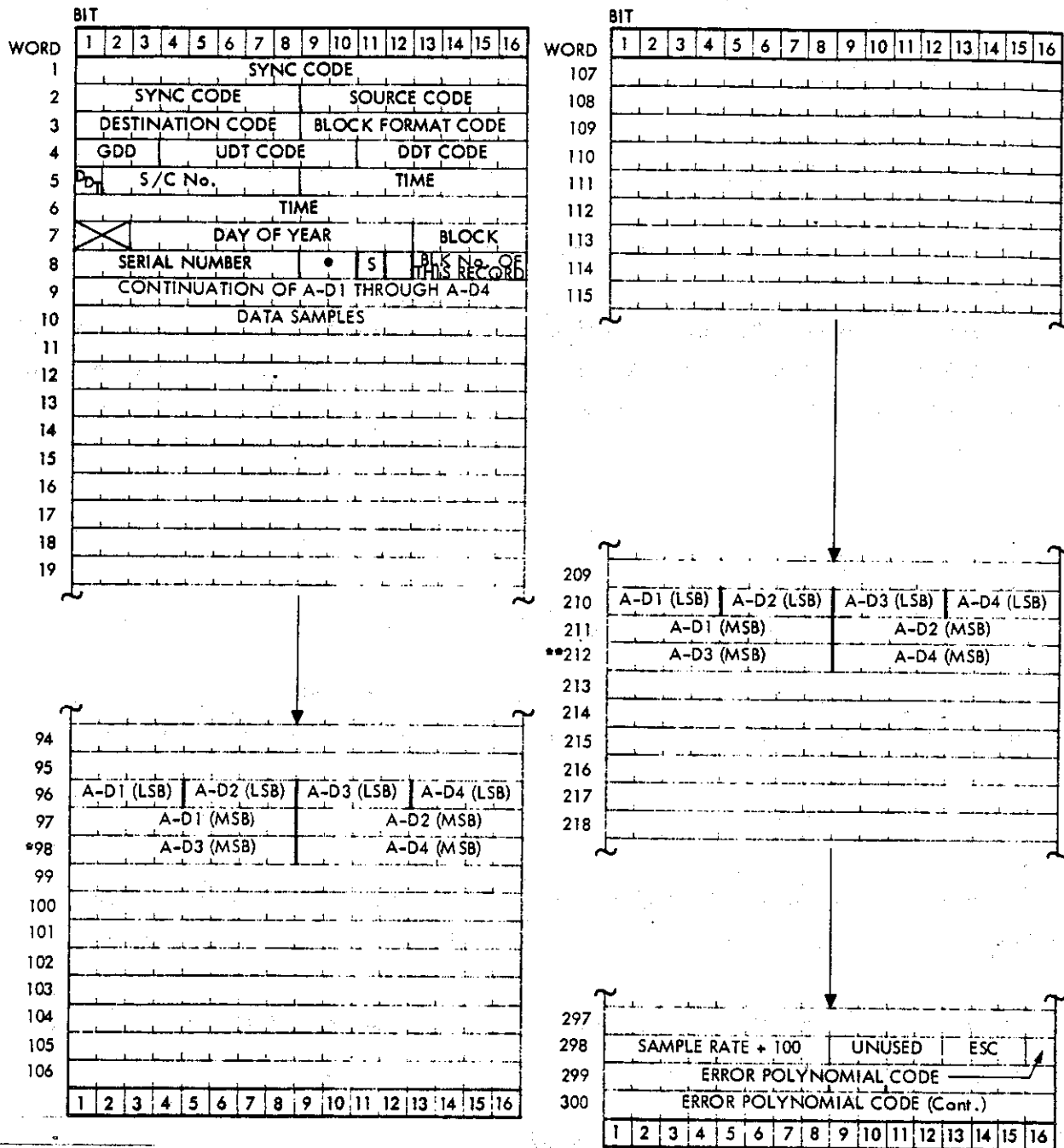
Figure RSC-11-4-3A. First Block of 12-Bit Record

| WORD | BIT                                     |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
|------|---|---|---|---|------------|---|---|---|-------------------|----|------------------------|----|------------|----|----|----|
|      | 1                                       | 2 | 3 | 4 | 5          | 6 | 7 | 8 | 9                 | 10 | 11                     | 12 | 13         | 14 | 15 | 16 |
| 1    | SYNC CODE                               |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 2    | SYNC CODE                               |   |   |   |            |   |   |   | SOURCE CODE       |    |                        |    |            |    |    |    |
| 3    | DESTINATION CODE                        |   |   |   |            |   |   |   | BLOCK FORMAT CODE |    |                        |    |            |    |    |    |
| 4    | GDD                                     |   |   |   | UDT CODE   |   |   |   | DOT CODE          |    |                        |    |            |    |    |    |
| 5    | S/C No.                                 |   |   |   |            |   |   |   | TIME              |    |                        |    |            |    |    |    |
| 6    | TIME                                    |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 7    | DAY OF YEAR                             |   |   |   |            |   |   |   | BLOCK             |    |                        |    |            |    |    |    |
| 8    | SERIAL NUMBER                           |   |   |   |            |   |   |   | • S               |    | BLK No. OF THIS RECORD |    |            |    |    |    |
| 9    | A-D1 (LSB)                              |   |   |   | A-D2 (LSB) |   |   |   | A-D3 (LSB)        |    |                        |    | A-D4 (LSB) |    |    |    |
| 10   | A-D1 (MSB)                              |   |   |   |            |   |   |   | A-D2 (MSB)        |    |                        |    |            |    |    |    |
| 11   | A-D3 (MSB)                              |   |   |   |            |   |   |   | A-D4 (MSB)        |    |                        |    |            |    |    |    |
| 12   | CONTINUATION OF A-D1 THROUGH A-D4 (LSB) |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 13   | AND (MSB) DATA SAMPLES THROUGH WORD 296 |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 14   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 15   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 16   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 17   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 18   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 19   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 20   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 21   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 22   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 23   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 24   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 25   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 26   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 27   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 28   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 29   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 30   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 31   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 32   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 33   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 34   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 35   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 36   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
| 37   |   |   |   |   |            |   |   |   |                   |    |                        |    |            |    |    |    |
|      | 1                                       | 2 | 3 | 4 | 5          | 6 | 7 | 8 | 9                 | 10 | 11                     | 12 | 13         | 14 | 15 | 16 |

| WORD | BIT                           |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
|------|-------------------------------|---|---|---|------------|---|---|---|------------|----|----|----|------------|----|----|----|
|      | 1                             | 2 | 3 | 4 | 5          | 6 | 7 | 8 | 9          | 10 | 11 | 12 | 13         | 14 | 15 | 16 |
| 38   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 39   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 40   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 41   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 42   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 43   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 44   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 45   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 46   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 47   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 48   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 49   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 50   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 51   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 52   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 53   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 54   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 55   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 56   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 57   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 58   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 59   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 60   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 61   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 62   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 63   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 64   |                               |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 291  | ↓                             |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 292  | A-D1 (LSB)                    |   |   |   | A-D2 (LSB) |   |   |   | A-D3 (LSB) |    |    |    | A-D4 (LSB) |    |    |    |
| 293  | A-D1 (MSB)                    |   |   |   |            |   |   |   | A-D2 (MSB) |    |    |    |            |    |    |    |
| 294  | A-D3 (MSB)                    |   |   |   |            |   |   |   | A-D4 (MSB) |    |    |    |            |    |    |    |
| 295  | 0                             | 0 | 0 | 0 | 0          | 0 | 0 | 0 | 0          | 0  | 0  | 0  | 0          | 0  | 0  | 0  |
| 296  | 0                             | 0 | 0 | 0 | 0          | 0 | 0 | 0 | 0          | 0  | 0  | 0  | 0          | 0  | 0  | 0  |
| 297  | 0                             | 0 | 0 | 0 | 0          | 0 | 0 | 0 | 0          | 0  | 0  | 0  | 0          | 0  | 0  | 0  |
| 298  | SAMPLE RATE = 100             |   |   |   |            |   |   |   | UNUSED     |    |    |    | ESC        |    |    |    |
| 299  | ERROR POLYNOMIAL CODE         |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
| 300  | ERROR POLYNOMIAL CODE (Cont.) |   |   |   |            |   |   |   |            |    |    |    |            |    |    |    |
|      | 1                             | 2 | 3 | 4 | 5          | 6 | 7 | 8 | 9          | 10 | 11 | 12 | 13         | 14 | 15 | 16 |

• = BLOCK SUBTYPE (BITS 9 AND 10)  
S = START OF SECOND

Figure RSC-11-4-3B. Typical Middle Block(s) of 12-Bit Record



- \* LAST DATA SAMPLE OF 1K SAMPLES PER SECOND 12-BIT BLOCK FOLLOWED BY THE 17-WORD PPM DATA WORDS WITH REMAINDER OF BLOCK THROUGH WORD 297 FILLED WITH ZEROS
- \*\* LAST DATA SAMPLE OF 2K SAMPLES PER SECOND 12-BIT BLOCK FOLLOWED BY THE 17-WORD PPM DATA WORDS WITH REMAINDER OF BLOCK THROUGH WORD 297 FILLED WITH ZEROS
- = BLOCK SUBTYPE (BITS 9 AND 10)
- S = START OF SECOND

Figure RSC-11-4-3C. Last Block of 12-Bit Record

Words 295 through 297. Zeros.

Words 298 through 300. Same as first block.

c. Last Block.

Words 1 through 8. Same as first block.

Word 9 through 297. Continuation of data samples (A-D1 through A-D4 LSBs and MSBs) through Word 98 or 212 dependent on rate utilized, followed by the 17-word PPM data block. The remainder of the block through Word 297 is filled with zeros.

Word 298 through 300. Same as first block.

3. Medium Band Data Record Block.

The format for the medium band data record blocks is shown in Figures RSC-11-4-4A, B, and C. The content of the blocks is as follows:

a. First Block.

Words 1 through 8. Identical to Words 1 through 8 of first narrow band 8-bit conversion block (reference Table RSC-11-4-1 for Record Length).

Words 9 through 296. Contains the first 288 words of the medium band data IDR record (see RSC-11-6).

Word 297, bits 1 through 16. Zeros.

Words 298 through 300. Identical to Words 298 through 300 of first narrow band 8-bit conversion block except that there is no sample rate + 100.

b. Middle Blocks.

Words 1 through 8. Same as first block.



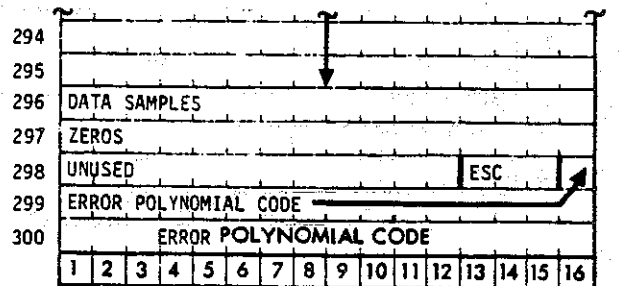
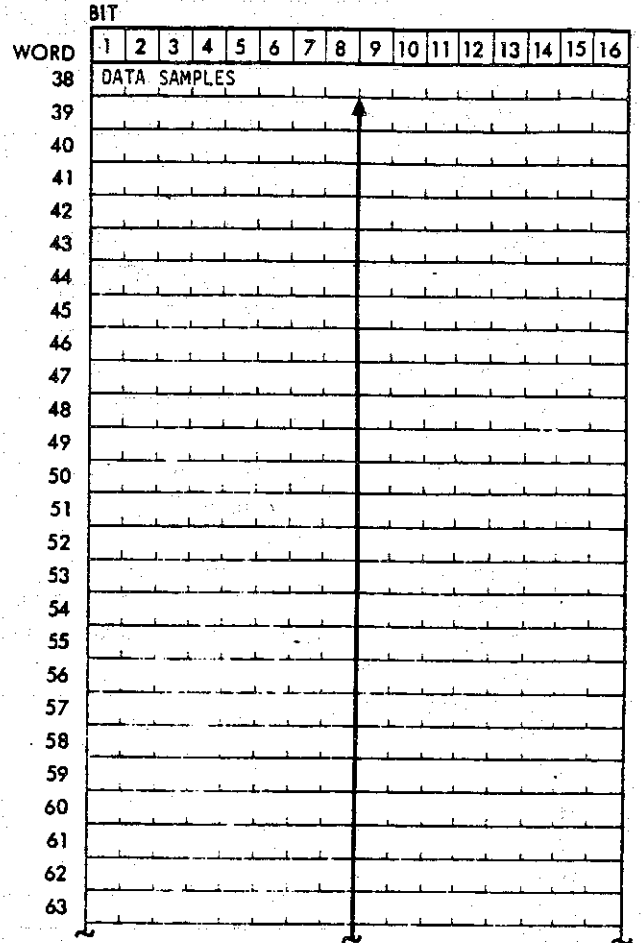
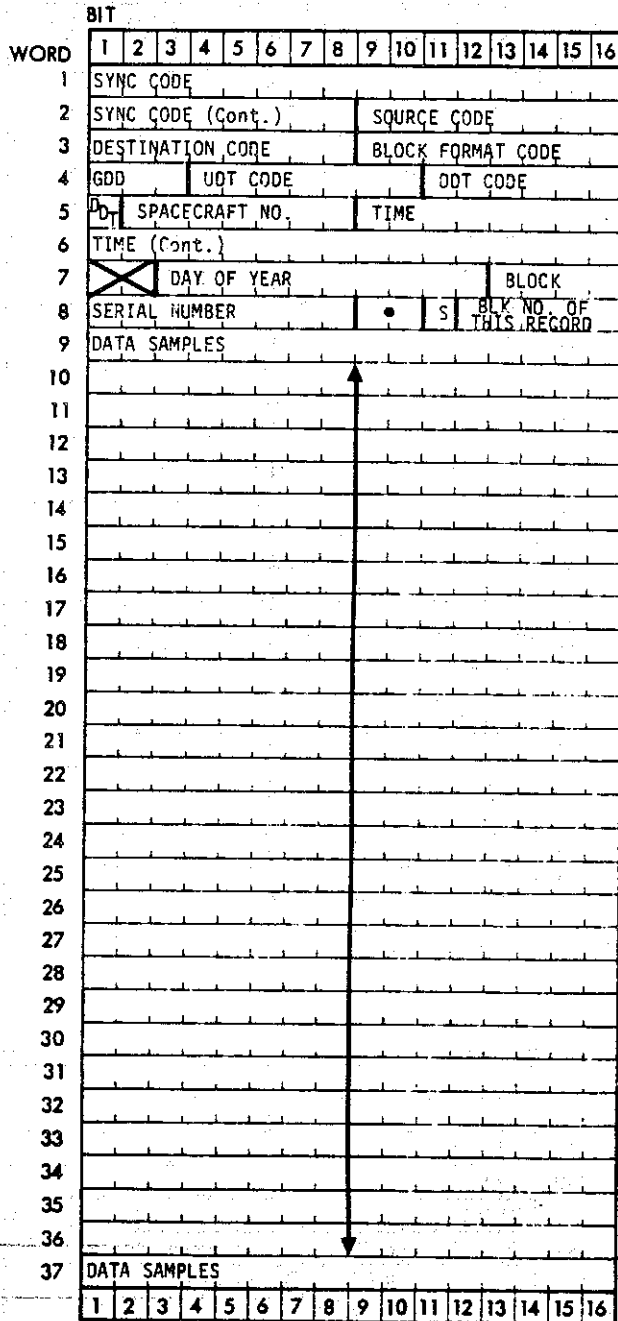
820-13; Rev. A  
RSC-11-4

| WORD | BIT                                |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
|------|------------------------------------|---|---|---|--------------|---|---|---|-------------------|----|-------|----|------------------------|----|----|----|--|
|      | 1                                  | 2 | 3 | 4 | 5            | 6 | 7 | 8 | 9                 | 10 | 11    | 12 | 13                     | 14 | 15 | 16 |  |
| 1    | SYNC CODE                          |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 2    | SYNC CODE (Cont.)                  |   |   |   |              |   |   |   | SOURCE CODE       |    |       |    |                        |    |    |    |  |
| 3    | DESTINATION CODE                   |   |   |   |              |   |   |   | BLOCK FORMAT CODE |    |       |    |                        |    |    |    |  |
| 4    | GDD                                |   |   |   | UDT CODE     |   |   |   | DDT CODE          |    |       |    |                        |    |    |    |  |
| 5    | SPACECRAFT NO.                     |   |   |   |              |   |   |   | TIME              |    |       |    |                        |    |    |    |  |
| 6    | TIME (Cont.)                       |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 7    | DAY OF YEAR                        |   |   |   |              |   |   |   |                   |    | BLOCK |    |                        |    |    |    |  |
| 8    | SERIAL NUMBER                      |   |   |   |              |   |   |   |                   |    | •     | S  | BLK NO. OF THIS RECORD |    |    |    |  |
| 9    | V                                  | C | E | S | 0            | 0 | 0 | 0 | TAPE NUMBER       |    |       |    |                        |    |    |    |  |
| 10   | RECORD NUMBER                      |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 11   | RECORD LENGTH                      |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 12   | SPACECRAFT ID                      |   |   |   |              |   |   |   | SOURCE STATION    |    |       |    |                        |    |    |    |  |
| 13   | DRA TAPE NUMBER                    |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 14   | DAY - 100s                         |   |   |   | DAY - 10s    |   |   |   | DAY-UNITS         |    |       |    | HR-10s                 |    |    |    |  |
| 15   | HR - UNIT                          |   |   |   | MIN-10s      |   |   |   | MIN-UNIT          |    |       |    | SEC-10s                |    |    |    |  |
| 16   | SEC-UNITS                          |   |   |   | MICROSECONDS |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 17   | MICROSECONDS (Con)                 |   |   |   |              |   |   |   | CONFIGURATION     |    |       |    |                        |    |    |    |  |
| 18   | UNDEFINED                          |   |   |   |              |   |   |   |                   |    |       |    | REDUCT RATE            |    |    |    |  |
| 19   | UNDEFINED                          |   |   |   |              |   |   |   |                   |    |       |    | SAMPLE RATE            |    |    |    |  |
| 20   | REDUCTION SOURCE                   |   |   |   |              |   |   |   | INP BLK SIZE REG. |    |       |    |                        |    |    |    |  |
| 21   | INPUT BLOCK SIZE REGISTER (Cont'd) |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 22   | UNDEFINED                          |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 23   |                                    |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 24   |                                    |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 25   |                                    |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 26   |                                    |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 27   |                                    |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 28   |                                    |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 29   |                                    |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 30   | UNDEFINED                          |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 31   | REDUCTION DAY                      |   |   |   |              |   |   |   | UNDEFINED         |    |       |    |                        |    |    |    |  |
| 32   | REDUCTION TIME OF DAY              |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 33   | UNDEFINED                          |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 34   | UNDEFINED                          |   |   |   |              |   |   |   | STATUS            |    |       |    |                        |    |    |    |  |
| 35   | SAMPLE COUNT                       |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 36   | SAMPLE COUNT (Cont'd)              |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
| 37   | DATA SAMPLES                       |   |   |   |              |   |   |   |                   |    |       |    |                        |    |    |    |  |
|      | 1                                  | 2 | 3 | 4 | 5            | 6 | 7 | 8 | 9                 | 10 | 11    | 12 | 13                     | 14 | 15 | 16 |  |

| WORD | BIT                   |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
|------|-----------------------|---|---|---|---|---|---|---|---|----|----|----|-----|----|----|----|
|      | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13  | 14 | 15 | 16 |
| 38   | DATA SAMPLES          |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 39   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 40   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 41   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 42   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 43   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 44   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 45   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 46   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 47   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 48   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 49   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 50   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 51   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 52   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 53   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 54   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 55   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 56   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 57   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 58   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 59   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 60   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 61   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 62   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 63   |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 294  |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 295  |                       |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 296  | DATA SAMPLES          |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 297  | ZEROS                 |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 298  | UNUSED                |   |   |   |   |   |   |   |   |    |    |    | ESC |    |    |    |
| 299  | ERROR POLYNOMIAL CODE |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
| 300  | ERROR POLYNOMIAL CODE |   |   |   |   |   |   |   |   |    |    |    |     |    |    |    |
|      | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13  | 14 | 15 | 16 |

• = BLOCK SUBTYPE (BITS 9 and 10)  
S = START OF SECOND

Figure RSC-11-4-4A. First Block Medium Band Data Record Format



- = BLOCK SUBTYPE (BITS 9 and 10)
- S = START OF SECOND

Figure RSC-11-4-4B. Continuation Block Medium Band Data Record Format

820-13; Rev. A  
RSC-11-4

| WORD | BIT               |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
|------|-------------------|---|---|---|----------|---|---|---|-------------------|----|-------|----|------------------------|----|----|----|
|      | 1                 | 2 | 3 | 4 | 5        | 6 | 7 | 8 | 9                 | 10 | 11    | 12 | 13                     | 14 | 15 | 16 |
| 1    | SYNC CODE         |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 2    | SYNC CODE (Cont.) |   |   |   |          |   |   |   | SOURCE CODE       |    |       |    |                        |    |    |    |
| 3    | DESTINATION CODE  |   |   |   |          |   |   |   | BLOCK FORMAT CODE |    |       |    |                        |    |    |    |
| 4    | GDD               |   |   |   | UDT CODE |   |   |   | DDT CODE          |    |       |    |                        |    |    |    |
| 5    | SPACECRAFT NO.    |   |   |   |          |   |   |   | TIME              |    |       |    |                        |    |    |    |
| 6    | TIME (Cont.)      |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 7    | DAY OF YEAR       |   |   |   |          |   |   |   |                   |    | BLOCK |    |                        |    |    |    |
| 8    | SERIAL NUMBER     |   |   |   |          |   |   |   |                   |    | • S   |    | BLK NO. OF THIS RECORD |    |    |    |
| 9    | DATA SAMPLES      |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 10   | ↑                 |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 11   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 12   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 13   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 14   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 15   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 16   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 17   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 18   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 19   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 20   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 21   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 22   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 23   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 24   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 25   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 26   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 27   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 28   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 29   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 30   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 31   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 32   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 33   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 34   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 35   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 36   |                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
| 37   | DATA SAMPLES      |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |
|      | 1                 | 2 | 3 | 4 | 5        | 6 | 7 | 8 | 9                 | 10 | 11    | 12 | 13                     | 14 | 15 | 16 |

| WORD | BIT          |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
|------|--------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|
|      | 1            | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 38   | DATA SAMPLES |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
| 39   | ↑            |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
| 40   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
| 41   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
| 42   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
| 43   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
| 44   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
| 45   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
| 46   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
| 47   |              |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |

|     |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 228 | ↓ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 229 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 230 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 231 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 232 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | DATA SAMPLES |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 233 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ZEROS        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 234 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ↑            |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 235 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 236 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 237 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 238 |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

|     |                       |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |     |  |
|-----|-----------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|-----|--|
| 294 | ↓                     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |     |  |
| 295 |                       |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |     |  |
| 296 |                       |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |     |  |
| 297 |                       |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |     |  |
| 298 |                       |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | ZEROS                 |  |  |  |  |  |  |  |  |  |  |  |  |  | ESC |  |
| 299 |                       |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    | ERROR POLYNOMIAL CODE |  |  |  |  |  |  |  |  |  |  |  |  |  |     |  |
| 300 | ERROR POLYNOMIAL CODE |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |     |  |
|     | 1                     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |     |  |

- = BLOCK SUBTYPE (BITS 9 and 10)
- S = START OF SECOND

Figure RSC-11-4-4C. Last Block Medium Band Data Record Format

Words 9 through 296. Continuation of data samples with successive 288 word segments of the IDR Record (see RSC-11-6).

Word 297, bits 1 through 16. Zeros.

Words 298 through 300. Same as first block.

c. Last Block.

Words 1 through 8. Same as first block.

Words 9 through 232. Contains the remaining data samples of the IDR Record (see RSC-11-6).

Words 233 through 297. Zeros.

Words 298 through 300. Same as first block.

4. Medium Band POCA Data Record Block.

The format for the medium-band POCA Data Record blocks is shown in Figure RSC-11-4-5. The content of the block is as follows:

Words 1 through 8. Identical to Words 1 through 8 of the first narrow band 8-bit conversion block (reference Table RSC-11-4-1 for Record Length).

Words 9 through 236. Contains the entire medium band POCA data ODR record (see RSC-11-5).

Words 237 through 297. Zeros.

Words 298 through 300. Identical to Words 298 through 300 of the first narrow band 8-bit conversion block except that there is no sample rate + 100.

820-13; Rev. A  
RSC-11-4

| WORD | BIT                                |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
|------|------------------------------------|---|---|---|----------|---|---|---|-------------------|----|-------|----|------------------------|----|----|----|-----|--|
|      | 1                                  | 2 | 3 | 4 | 5        | 6 | 7 | 8 | 9                 | 10 | 11    | 12 | 13                     | 14 | 15 | 16 |     |  |
| 1    | SYNC CODE                          |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 2    | SYNC CODE (Cont.)                  |   |   |   |          |   |   |   | SOURCE CODE       |    |       |    |                        |    |    |    |     |  |
| 3    | DESTINATION CODE                   |   |   |   |          |   |   |   | BLOCK FORMAT CODE |    |       |    |                        |    |    |    |     |  |
| 4    | GDD                                |   |   |   | UDT CODE |   |   |   | DDT CODE          |    |       |    |                        |    |    |    |     |  |
| 5    | SPACECRAFT NO.                     |   |   |   |          |   |   |   | TIME              |    |       |    |                        |    |    |    |     |  |
| 6    | TIME (Cont.)                       |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 7    | DAY OF YEAR                        |   |   |   |          |   |   |   |                   |    | BLOCK |    |                        |    |    |    |     |  |
| 8    | SERIAL NUMBER                      |   |   |   |          |   |   |   | •                 |    | S     |    | BLK NO. OF THIS RECORD |    |    |    |     |  |
| 9    | V                                  | C | E | 0 | 0        | 1 | 0 | 0 | Tape Number       |    |       |    |                        |    |    |    |     |  |
| 10   | RECORD NUMBER                      |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 11   | RECORD LENGTH                      |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 12   | S/C ID                             |   |   |   |          |   |   |   | SOURCE            |    |       |    |                        |    |    |    |     |  |
| 13   | PREDICT SET ID                     |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 14   | PREDICT SET ID (Cont.)             |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 15   | UNDEFINED                          |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 16   | PREDICT BASE FREQUENCY             |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 17   | PREDICT BASE FREQUENCY (Cont.)     |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 18   | UNDEFINED                          |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 19   | UNDEFINED                          |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 20   | UNDEFINED                          |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 21   | UNDEFINED                          |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 22   | ODA PPM STATUS                     |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 23   | DEST CODE                          |   |   |   | BLK SEQ. |   |   |   | PPM MSG LENGTH    |    |       |    |                        |    |    |    |     |  |
| 24   | PPM SRCE                           |   |   |   | VAL      |   |   |   | UNUSED            |    |       |    | PPM MESSAGE ID         |    |    |    |     |  |
| 25   | PPM EXPANSION                      |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 26   | PPM BAND                           |   |   |   | PPM POL  |   |   |   | MASER             |    |       |    | RECVR                  |    |    |    |     |  |
| 27   | PPM DPLX                           |   |   |   | UNUSED   |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 28   | OPS MODE                           |   |   |   | UNUSED   |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 29   | PPM INTEGRATION TIME               |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 30   | PPM TIME OF SIGNAL LEVEL MSRMT     |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 31   | PPM TIME OF SIGN LVL MSRMT (Cont.) |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 32   | PPM SYSTEM NOISE TEMPERATURE       |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 33   | PPM STANDARD DEVIATION             |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 34   | PPM SIGNAL POWER LEVEL             |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 35   | PPM STANDARD DEVIATION             |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 36   | PPM SSB CHECKSUM                   |   |   |   |          |   |   |   |                   |    |       |    |                        |    |    |    |     |  |
| 37   | DOY                                |   |   |   |          |   |   |   | UNDEFINED         |    |       |    |                        |    |    |    | 10D |  |
|      | 1                                  | 2 | 3 | 4 | 5        | 6 | 7 | 8 | 9                 | 10 | 11    | 12 | 13                     | 14 | 15 | 16 |     |  |

| WORD | BIT                                 |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
|------|-------------------------------------|---|---|---|---|---|---|---|-------------|----|----|----|----|----|-----|----|
|      | 1                                   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9           | 10 | 11 | 12 | 13 | 14 | 15  | 16 |
| 38   | TIME OF DAY                         |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 39   | POCA DISPLACEMENT FREQUENCY         |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 40   | POCA DISPLACEMENT FREQUENCY (Cont.) |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 41   | POCA DISPLACEMENT FREQUENCY (Cont.) |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 42   | POCA RAMP RATE                      |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 43   | POCA RAMP RATE (Cont.)              |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 44   | POCA RAMP RATE (Cont.)              |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 45   | FMS STATUS                          |   |   |   |   |   |   |   | POCA STATUS |    |    |    |    |    |     |    |
| 46   | FREQ MONITOR NO. 1                  |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 47   | FREQ MONIOTR NO. 1 (Cont.)          |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 48   | FREQ MONITOR NO. 1 (Cont.)          |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 49   | FREQ MONITOR NO. 2                  |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 50   | FREQ MONITOR NO. 2 (Cont.)          |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 51   | FREQ MONITOR NO. 2 (Cont.)          |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 52   | PREDICT DISPLACEMENT FREQUENCY      |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 53   | PREDICT DISPLACEMENT FREQ (Cont.)   |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 54   | PREDICT DISPLACEMENT FREQ (Cont.)   |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 55   | UNDEFINED                           |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 56   | UNDEFINED                           |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 57   | SAME FORMAT AS WORDS 37 thru 56     |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 58   | FOR SECOND N + 1 etc.               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 235  | ZEROS                               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 236  | ZEROS                               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 237  | ZEROS                               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 238  | ZEROS                               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 293  | ZEROS                               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 294  | ZEROS                               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 295  | ZEROS                               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 296  | ZEROS                               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 297  | ZEROS                               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 298  | ZEROS                               |   |   |   |   |   |   |   |             |    |    |    |    |    | ESC |    |
| 299  | ERROR POLYNOMIAL CODE               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
| 300  | ERROR POLYNOMIAL CODE               |   |   |   |   |   |   |   |             |    |    |    |    |    |     |    |
|      | 1                                   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9           | 10 | 11 | 12 | 13 | 14 | 15  | 16 |

• = BLOCK SUBTYPE (BITS 9 AND 10)  
S = START OF SECOND

Figure RSC-11-4-5. Medium Bandwidth POCA Data ODR Record Playback Format