#318

PIONEER 10

ENCOUNTER DATA SUMMARY AND ANALYSIS

INTERPLANETARY SUMMARY DATA

72-012A-05A, B, C

PIONEER 10
Encounter Data Summary Tapes
72-012A-05A

This data set has been restored. The original tapes were 556 BPI, binary, 7-track. The DS tape is 9-track, 6250 BPI, binary containing 6 files. The DR tape is a 3480 cartridge.

The DR, DS, and DD numbers along with the time spans are:

DR#	DS#	DD#	FILES	TIME SPAN
DR02870	DS02870	D-20555	1	11/25/73 - 11/29/73
		D-20552	2	11/29/73 - 12/03/73
		D-20553	3	12/03/73 - 12/07/73
		D-20556	4	12/07/73 - 12/11/73
		D-20551	5	12/11/73 - 12/15/73
		D-20554	6	12/15/73 - 12/19/73

PIONEER 10
Encounter Data Analysis Tape
72-012A-05B

This data set has been restored. The original tape was 7-track, 556 BPI, BCD, containing 12 files. The DS tape is 9-track, 6250 BPI, EBCDIC, containing 12 files. The DR tape is a 3480 cartridge.

The DR, DS, and DD numbers along with the time spans are:

DR#	DS#	DD#	FILES	TIME SPAN
DR02935	DS02935	D-20557	1-12	12/03/73 - 12/04/73

PIONEER 10
Interplanetary Data Summary Tapes
72-012A-05C

This data set has been restored. It has been written onto the same DR and DS tape as 72-012A-05B. The original tapes were 7-track, 556 BPI, binary. The DS tape is 9-track, 6250 BPI, binary, containing 3 files (files 13-15). The DR tape is a 3480 cartridge.

The DR, DS, and DD numbers along with the time spans are:

DR#	DS#	DD#	FILES	TIME SPAN
DR02935	DS02935	D-31853	13	03/03/72 - 12/03/73
		D-31854	14	12/04/73 - 06/29/76
		D-31855	15	07/01/76 - 05/30/77

REQ. AGENT	RAND NO.	ACQ. AGENT
ROP	RC4166	LRD
CMP	RC9091	RWV
VJP	RC1609	

PIONEER 10

ENCOUNTER DATA SUMMARY AND ANALYSIS

INTERPLANETARY DATA SUMMARY TAPE

This data set catalog consists of 6 Encounter Data Summary, 1 Encounter Analysis tape and 3 Interplanetary Data Summary Tapes. The Summary tapes are 556 BPI, Binary, 7-track and contains 1 file of data. The Analysis tape is 556 BPI, BCD, 7-track and contains 12 files of data. The tapes were created on an CDC 3600 computer. The D and C numbers along with the time spans are as follows:

72-012A-05A

D#	C#	TIME SPAN	
D-20551	C-16423	12/11/73 - 12/15/73	
D-20552	C-16424	11/29/73 - 12/03/73	
D-20553	C-16425	12/03/73 - 12/07/73	
D-20554	C-16426	12/15/73 - 12/19/73	
D-20555	C-16427	11/25/73 - ~~12/11/73~~ 11/29/73	
D-20556	C-16428	12/07/73 - 12/11/73	
72-012A-05B			FILES
D-20557	C-16429	12/03/73 - 12/04/73	12
72-012A-05C			
D-31853	C-19809	03/03/72 - 12/03/73	
D-31854	C-20400	12/04/73 - 06/29/76	
D-31855	C-20401	07/01/76 - 05/30/77	

4.1.2 UCSD/TRD Pioneer Summary Tape Format

Pioneer summary tapes are single-file, multi-record tapes, written in odd parity on the CDC 3600. Each 300 word record contains one complete data summary, along with associated information. All numbers are written on the tape as positive binary integers. The tape format is as follows:
(tapes are 7-track, 556 bpi, 48 bit words)

Word Number	Name	Definition	Bias, Value or Units
1	SAT	Satellite Number	10 or 11
2	NFMOD	Mode of reduction: Earth traversal, Cruise or Jupiter Encounter	1-3
3	ISTART	Start time of summary	Cole time (ms) = 43,200,000 for Jan 1, 1972, 1200
4	ISTOP	Stop time of summary	Cole time (ms)
5	IDAY	Day of year	
6	IYR	4 digit year	
7	IDRTAP	5 digit name of EDR tape which produced the summary	
8	BRTAP	5 digit name of binary reduction tape associated with the summary	
9	IFF	1 digit code for data format, 1 = A, 2 = A/D, 3 = B, 4 = B/D	
10	IB	1 digit code for bit rate	1-8 [$2^4, 2^5 \ldots 2^{11}$ (bits/sec)]
11	IBR(IB)	Bit rate as defined by IB	16-2048
12	RTLT	Round trip Light Time (for ISTART)	milliseconds
13	ICOMAL	Number of commutate alarms; currently unused (-2)	
14-16	PMIN(I),I=1,3	Minimum Pulse Temp., High Voltage Regulator current & Detector C Temp., respectively	PMIN(I)*1.E6+1.E8
17-19	PMAX(I),I=1,3	Maximum values of the above parameters	PMAX(1)*1.E6+1.E8
20-22	PAVE(I),I=1,3	Average values of the above I=2 not currently used.	PAVE(I)*1.E6+1.E8

PULSE DATA

Each parameter for pulse data can be sorted into one of 21 bins, depending on detector ID and high voltage status. Bins are labeled as follows:

I	Detector	I	Detector
1	C1	12	E3U
2	C2	13	M1H
3	C3	14	M2H
4	E1H	15	M3H
5	E2H	16	M1L
6	E3H	17	M2L
7	E1L	18	M3L
8	E2L	19	M1U
9	E3L	20	M2U
10	E1U	21	M3U
11	E2U		

Word Number	Name	Definition*	Bias
23-43	AVG(I)	Average number of counts/ reading	AVG(I)*1.E6
44-64	RMS(I)	RMS Deviation	RMS(I)*1.E6
65-85	RESMAX(I)	Maximum Residue	RESMAX(I)*1.E6+1.E8
86-106	RESMIN(I)	Minimum Residue	RESMIN(I)*1.E6+1.E8
107-127	NREAD(I)	Number of readings	None
128-148	NCOUNT(I)	Total counts	None
149-169	TOTIME(I)	Total time, in seconds	TOTIME*1.E6
170-190	AVGCR(I)	Average number of counts/ second	AVGCR(I)*1.E6
191-211	PROBER(I)	Probable Error (Counts/Second)	PROBER(I)*1.E10

* More extensive definitions are given at the end

ELECTROMETER DATA

Each parameter for electrometer data can be sorted into one of 6 bins, depending on detector ID. Bins are labeled as follows:

I	Detector
1	CDC
2	SEDC
3	SPDC
4	CAL1
5	CAL2
6	CAL3

Word Number	Name	Definition	Bias
212-217	AVG(I)	Average reading	AVG(I)*1.E6
218-223	RMS(I)	RMS Deviation(current)	RMS(I)*1.E18
224-229	RESMAX(I)	Maximum Residue(current)	RESMAX(I)*1.E6+1.E8
230-235	RESMIN(I)	Minimum Residue(current)	RESMIN(I)*1.E6+1.E8
236-241	AVGA(I)	Average Current	AVGA(I)*1.E18
242-247	EMAX(I)	Maximum Current	EMAX(I)*1.E18
248-253	EMIN(I)	Minimum Current	EMIN(I)*1.E18
254-259	MREAD(I)	Number of readings	None

TRAJECTORY DATA

Earth Traversal (NFMOD = 1)

Definitions are given alphabetically at the end

WORD NUMBER		NAME	
ISTART	ISTOP		
260	275	ATQCLT	
261	276	ATQLONG	
262	277	RADPE	
263	278	CLTPEE	
264	279	ALGPEE	
265	280	TLCPEE	
265-270 and 281-300		____	(SPARE)

TRAJECTORY DATA

Cruise (NFMOD = 2)

WORD NUMBER		NAME
ISTART	ISTOP	
260	275	ATCCLT
261	276	ATCLONG
262	277	RADPS
263	278	CLTPSC
264	279	ALGPSC
265	280	RADES
266	281	CLTESC
267	282	ALGESC
268	283	RADJS
269	284	CLTJSC
270	285	ALGJSC
286 - 300		____ (SPARE)

TRAJECTORY DATA

Jupiter Encounter (NFMOD = 3)

WORD NUMBER ISTART	ISTOP	NAME
260	275	ATCCLT
261	276	ATCLONG
262	277	RADPJ
263	278	CLTPJJ
264	279	ALGPJJ1R
265	280	TLCPJJ
266	281	RADPJM
267	282	CLTPJM
268	283	TLCPJM
269	284	B
270	285	EL
286	287	ALGPJJ3L
288-300		_____ (SPARE)

Word 274 is RTLT corresponding to ISTOP

RESTART DATA

This information is written on the summary tape in order to provide the information necessary to restart the Pioneer data reduction program following any summary.

271	IREC	Physical record number in File 4 of EDR tape at ISTOP
272	NREC	Logical record number on binary reduction tape at ISTOP
273	ISREC	Physical record number on summary tape
274-300	---	Spare

OUTPUT FUNCTION DEFINITIONS

FUNCTION NAME	SYMBOL OR EQUATION	PRINTOUT ACCURACY	PRINTOUT RANGE
Average Count	$\overline{{}_jC}$	0.1%	10^{-4} to 10^{+9}
RMS Deviation	${}_j\sigma = \sqrt{\overline{{}_jC^2} - \left(\overline{{}_jC}\right)^2}$	0.1%	10^{-3} to 10^{+5}
Maximum Residue	$\dfrac{{}_jC\ \max - \overline{{}_jC}}{{}_j\sigma}$	1.0%	-99 to +99
Minimum Residue	$\dfrac{{}_jC\ \min - \overline{{}_jC}}{{}_j\sigma}$	1.0%	-99 to +99
Number of Readings	${}_jN$	Exact integer	0 to 99999
Total Counts	$\sum_{i=1}^{{}_jN} {}_jC_i$	0.1%	0 to 10^9
Total Time, Sec.	$\sum_{i=1}^{{}_jN} {}_jt_i$	$\frac{1}{2}$ sec.	0 to 99999.9
Average Count Rate, c/s	$\overline{CR}_j$	0.1%	10^{-4} to 10^{+7}
Probable Error, c/s	$\pm .6745 \sqrt{\Sigma_j C} / \Sigma\, t_i$	0.1%	10^{-4} to 10^{+4}

ME

ALGESC	Traversal	Longitude	Earth	Sun	Ecliptic	-
ALGJSC	Cruise	"	Jupiter	Sun	"	Micro-radians
ALGPEE	Traversal	"	Pioneer S/C	Earth	Equator	"
ALGPJJ1R	Encounter	"	"	Jupiter	"	"
ALGPJJ3L	"	"	"	"	"	"
ALGPSC	Cruise	"	"	Sun	Ecliptic	"
ATCCLT	"	Colatitude	Spin Axis	Pioneer S/C	"	"
ATCCLT	Encounter	"	"	"	"	"
ATCLONG	Cruise	Longitude	"	"	"	"
ATCLONG	Encounter	"	"	"	"	"
ATQCLT	Traversal	Colatitude	"	"	E.Equator	"
ATQLONG	"	Longitude	"	"	"	"
B	Encounter	Magnetic Field D2 Model (JGR 79, 3501, 1974)				Micro-gauss
CLTESC	Cruise	Colatitude	Earth	Sun	Ecliptic	Micro-radians
CLTJSC	"	"	Jupiter	Sun	"	"
CLTPEE	Traversal	"	Pioneer S/C	Earth	Equator	"
CLTPJJ	Encounter	"	"	Jupiter	"	"
CLTPJM	"	"	"	"	Mag.Equator	"
CLTPSC	Cruise	"	"	Sun	Ecliptic	"
EL	Encounter	L value - D2 Model (JGR 79, 3501, 1974)				Micro-radii
RADES	Cruise	Radius	Earth	Sun		Micro-AU
RADJS	"	"	Jupiter	Sun		"
RADPE	Traversal	"	Pioneer S/C	Earth		Micro-RE
RADPJ	Encounter	"	"	Jupiter		Micro-RJ
RADPJM	"	"	"	"	Mag.Equator	"
RADPS	Cruise	"	"	Sun		"
TLCPEE	Traversal	Local Time	"	Earth	Equator	Micro-hour
TLCPJJ	Encounter	"	"	Jupiter	"	"
TLCPJM	"	"	"	"	Mag.Equator	"

4.2 UCSD/TRD PIONEER 10 ANALYSIS TAPES

4.2.1 Analysis Tape Format

TAPE ID - M47200

7 Tracks-even parity, 556 bpi

120 BCD characters per record (standard output tape)

CHARACTER	CORRESPONDING DATA	FORMAT	INTERPRETATION
1	----	IX	Blank space
2 - 3	IDA	I2	Detector Identification[1]
4 - 13	T(JC)	F10.5	Time in days + fraction 12:00 Jan. 1, 1972 = Day 1.5
14 - 23	CA(1)[2]	E10.3	Average counting rate D.C. Term[2]
24 - 33	CA(2)[2]	E10.3	Coefficient of SIN term of first harmonic[2]
34 - 43	CA(3)[2]	E10.3	Coefficient of COS term of first harmonic[2]
44 - 53	CA(4)[2]	E10.3	Coefficient of SIN term of second harmonic[2]
54 - 63	CA(5)[2]	E10.3	Coefficient of COS term of second harmonic[2]
64 - 73	CA(6)[2]	E10.3	Coefficient of SIN term of fourth harmonic[2]
74 - 83	CA(7)[2]	E10.3	Coefficient of COS term of fourth harmonic[2]
84 - 92	CA(8)[2]	E9.2	Coefficient of TIME term[2]
93 - 101	CA(9)[2]	E9.2	Coefficient of TIME squared term[2]
102 - 107	ERA	2PF6.1	RMS error[3]
108 - 110	NDAT	OP13	Number of data points per fit[(4)]
111 - 113	NCOMCY	I3	Number of commutation cycles per fit
114 - 119	TW	5PF6	Full width of triangular weight function in days
120	"3"	1H3	Third generation of program

4.2.2 Analysis Tape Notes TAPE ID - M47200

1. The twelve files are in the following order:

FILE NUMBER	TRD CHANNEL	DETECTOR IDENTIFICATION	TIME INTERVAL IN COLE DAYS + FRACTION
1	M1	1	703.716-704.532
2	M2	2	703.810-704.466
3	M3	3	703.856-704.370
4	E1 (5)	4	702.774-705.950
5	E2	5	702.774-704.608
6	E3	6	702.773-704.600
7	C1	7	702.774-704.615
8	C2	8	702.774-704.590
9	C3	9	703.348-704.533
10	E1 - 2.6M1	4	703.716-704.532
11	E2 - 2.12M1	5	703.716-704.532
12	E3 - 1.12M1	6	703.716-704.532

2. The coefficients are connected to the data as follows:

Dead time corrected counting rate at time (T) = CA(1) + CA(2) SIN θ + CA(3)COS θ
+ CA(4) SIN 2θ + CA(5)COS 2θ + CA(6)SIN 4θ + CA(7)COS 4θ
+ CA(8)(T-CT) + CA(9)$(T-CT)^2$ + error

Where θ = azimuthal angle with respect to the closest approach to the direction of B.

And T = time in days + fraction, C T = time at which coefficients were calculated in cole days + fraction.

Day 703 on the Cole Calendar is December 3, 1973.

3. RMS error of square fit function with respect to data points.

4. Where data gaps exist, the number of data points per fit is reduced, resulting in a larger RMS error.

5. 2660 counts subtracted inbound, 3090 outbound, from channel E1 to account for power supply noise.

M 44904
D-20551

12/11/93
-12/15/93

FILE 0001 REC 0001 CH 2400

0001	000000000000	001200000000	000000030000	711527527200	000071153003	170400000000	000005310000	000000003665
0049	000000000011	731100000000	001253240000	000000000003	000000000000	000700000000	000020000000	000025315436
0097	777777777777	777500000006	500617130000	000772445546	000000063377	140000000006	500617130000	000772445546
0145	000000063377	140000000006	500617130000	002546232060	000000063377	140000000000	474475300000	000010715225
0193	000000000267	066000000430	533215000000	000005561540	000000000150	503300000000	000000000000	000000000000
0241	000000000000	000000000000	000000000000	000002426052	000000000000	000000000000	000000000000	000000000000
0289	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000
0337	000000000000	000000000000	052772460000	000004603763	000000000354	306500000013	435476730000	000006246710
0385	000000000170	642700000000	000000000000	000000000000	000000000000	000000000000	000000000000	000001630554
0433	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000
0481	000000000000	000000000000	000000000000	000000000000	000000000000	000000000006	016754330000	000602442362
0529	000000060625	311600000006	001122610000	000603160744	000000060167	761400000005	753604000000	000575360400
0577	000000057536	040000000005	753604000000	000600125442	000000057536	040000000005	753604000000	000575360400
0625	000000057536	040000000005	753604000000	000575360400	000000057536	040000000005	753604000000	000575360400
0673	000000057536	040000000005	670234460000	000571310413	000000057240	747300000005	642446530000	000572011651
0721	000000057212	502600000005	753604000000	000575360400	000000057536	040000000005	753604000000	000570046272
0769	000000057536	040000000005	753604000000	000575360400	000000057536	040000000005	753604000000	000575360400
0817	000000057536	040000000005	753604000000	000575360400	000000057536	040000000000	000000100000	000000000003
0865	000000000000	001000000000	000000070000	000000000004	000000000000	000700000000	000000000000	000000000000
0913	000000000000	000000000000	000000000000	000000000003	000000000000	000000000000	000000020000	000000000001
0961	000000000000	000200000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000001
1009	000000000000	000000000000	000001230000	000000000007	000000000000	000600000000	001003030000	000000000006
1057	000000000000	000300000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000002
1105	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000
1153	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	555757000000	000021117150
1201	000000005557	570000000000	500161100000	000026676740	000000005001	611000000000	000000000000	000000000000
1249	000000000000	000000000000	000000000000	000021117150	000000000000	000000000000	133373600000	000005557570
1297	000000001333	736000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000005557570
1345	000000000000	000000000000	323161000000	000005740161	000000000172	115500000273	174606420000	000003642333
1393	000000000105	632000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000001544504
1441	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000
1489	000000000000	000000000000	000000000000	000000000000	000000000000	000000000461	333272710000	035441771775
1537	000001220751	225200015454	204524040000	024417224524	000001022714	761300000000	000000000000	000000000000
1585	000000000000	000000000000	000000000000	017633460537	000000000000	000000000000	000000000000	000000000000
1633	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000
1681	000000000000	000000000032	040715220000	003026447044	000000304414	641100000000	000000000000	000000000000
1729	000000000000	000000000000	006503300000	000001673214	000000000112	227600000000	000000000000	000000000000
1777	000000000000	000000000006	066405210000	000604472734	000000060312	537400000005	753604000000	000575360400
1825	000000057536	040000000005	737231070000	000572323545	000000057215	435000000005	753604000000	000575360400
1873	000000057536	040000000000	003006320000	000001420701	000000000101	711400000000	000000000000	000000000000
1921	000000000000	000000000000	023203300000	000005016157	000000000260	666077777704	312330007777	770431233000
1969	777777043123	300000000000	000234200000	000000023420	000000000002	342026571420	364400002657	142036440000
2017	265714203644	000000000000	000000070000	000000000007	000000000000	000700000000	000000000000	000000000000
2065	000000000000	000077777776	635513777777	777663551377	000000067277	120000000000	053317710000	000001210046
2113	000000002457	207700000006	724352200000	000005775730	000000002461	151300000000	000000020000	000672435405
2161	000000000000	000200000000	000001030000	000000000001	000000002531	545100000000	057436400000	000010517626
2209	000000067302	464300000000	053317730000	000001145455	000000002457	274620000006	724622310000	000005766467
2257	000000002461	701300000000	000000020000	000672464001	000000000704	221500000000	071043617777	777777777777
2305	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777
2353	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777

FILE 0001 REC 0002 CH 2400

0001	000000000000	001200000000	000000030000	711530033420	000071153035	464500000000	000005310000	000000003665
0049	000000000011	731100000000	001253240000	000000000003	000000000000	000700000000	000020000000	000025315451
0097	777777777777	777500000006	500617130000	000772445546	000000063377	140000000006	500617130000	000772445546
0145	000000063377	140000000006	500617130000	002546232060	000000063377	140000000000	601221500000	000011036530
0193	000000000172	044000000426	174324110000	000001505033	000000000042	701100000000	000000000000	000000000000
0241	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	036411000000	000000000000
0289	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000
0337	000000000000	000000000000	122052170000	000005277246	000000000254	504200000014	442223410000	000001706427
0385	000000000125	334700000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000
0433	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000
0481	000000000000	000000000000	000000000000	000000000000	000000000000	000000000006	035313330000	000601675433
0529	000000060543	755000000006	005737060000	000601677614	000000060664	052100000005	753604000000	000575360400
0577	000000057536	040000000005	753604000000	000575360400	000000057536	040000000005	753604000000	000575360400

1873	000000057536	040000000000	020767760000	000001076415	000000000024	060000000000	000000000000	000000000000	
1921	000000000000	000000000000	041345000000	000002230750	000000000155	035477777704	312330007777	770431233000	
1969	777777043123	300000000000	000234200000	000000023420	000000000002	342026571420	364400002657	142036440000	
2017	265714203644	000000000000	000000070000	000000000007	000000000000	000700000000	000000000000	000000000000	
2065	000000000000	000000000000	057415730000	000010615616	000000116113	236700000000	053436020000	000007406436	
2113	000000002501	276000000011	617270350000	000005662753	000000002466	057300000000	000000000000	001162627132	
2161	000000000000	231700000000	000462330000	000000006512	000000002544	534400000000	057415730000	000010615616	
2209	000000116116	641500000000	053436030000	000007341724	000000002501	241700000011	617637710000	000005673376	
2257	000000002467	214000000000	000000000000	001162521310	000000002665	162700000000	267161047777	777777777777	
2305	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777	
2353	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777	777777777777	

FILE 0001 REC 0005 CH 2400

0001	000000000000	001200000000	000000030000	714174755515	000071417527	430100000000	000005350000	000000003665	
0049	000000000011	731400000000	001253320000	000000000003	000000000000	000400000000	000002000000	000025445344	
0097	777777777777	777500000006	500617130000	000772445546	000000063377	140000000006	500617130000	000772445546	
0145	000000063377	140000000006	500617130000	000772445546	000000063377	140000000001	720440000000	000034470340	
0193	000000000267	066000000426	543363550000	000007502200	000000000321	206600000000	000000000000	000000000000	
0241	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	017204400000	000000000000	
0289	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	
0337	000000000000	000000000000	264161410000	000013603737	000000000312	334400000012	572111650000	000002704330	
0385	000000000313	274100000000	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000	
0433	000000000000	000000000000	017204400000	000000000000	000000000000	000000000000	000000000000	000000000000	
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FILE 0001 REC 0006 CH 2400

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  1 703.71886 1.055E 02 1.915E 00 2.542E 00-1.603E 00 2.319E 00 2.804E 00-4.188E-01 1.00E 03 8.06E 0  REC     3. LENGTH   120
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  1 703.72011 1.071E 02 2.767E 00 3.317E 00-1.205E 00 2.034E 00 3.649E 00-2.296E-01 1.31E 03 8.84E 0  REC     4. LENGTH   120
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  1 703.72136 1.086E 02 3.225E 00 3.969E 00-1.090E 00 2.316E 00 3.986E 00 2.299E-01 1.53E 03 1.20E 0  REC     5. LENGTH   120
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  1 703.72386 1.137E 02 3.329E 00 4.279E 00 9.329E-01 1.835E 00 3.888E 00 1.153E 00 1.62E 03 3.63E 0  REC     7. LENGTH   120
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  1 703.72511 1.171E 02 3.079E 00 3.855E 00 4.827E-02 9.567E-01 4.412E 00 1.996E 00 1.71E 03-5.07E 0  REC     8. LENGTH   120
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  1 703.72886 1.234E 02 6.842E-01 4.727E 00-5.085E-02 2.416E 00 2.977E 00 7.361E-01 1.29E 03-1.25E 0  REC    11. LENGTH   120
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  1 703.73386 1.300E 02 1.437E 00 6.305E 00-3.588E-01-2.670E 00 5.727E-01-7.228E-01 1.37E 03-1.20E 0  REC    15. LENGTH   120
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  1 703.73511 1.306E 02 1.884E 00 6.175E 00-1.073E 00-7.472E-01 1.788E-01-1.075E 00 1.44E 03-3.59E 0  REC    16. LENGTH   120
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  1 703.73636 1.330E 02 2.653E 00 5.089E 00-2.021E 00-1.354E 00-3.103E-01-1.402E 00 1.37E 03-5.27E 0  REC    17. LENGTH   120
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  1 703.74011 1.362E 02 4.192E 00-9.406E-02-1.351E 00-3.053E 00 1.122E-01-3.243E 00 1.28E 03 9.25E 0  REC    20. LENGTH   120
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   6 704.52467 2.065E 04-1.440E 01 1.137E 01 2.964E 01 1.542E 03-7.866E 01-4.414E 02-6.62E 05-8.62E 0  REC      3. LENGTH    120
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   6 704.52967 1.820E 04 4.250E 01-2.389E 01-1.177E 01 7.668E 02-8.668E 01-3.757E 02-4.42E 05-8.03E 0  REC      7. LENGTH    120
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   6 704.53092 1.745E 04-5.901E 01 1.016E 02-1.807E 01 5.911E 02 2.748E 01-4.207E 02-4.98E 05 1.08E 0  REC      8. LENGTH    120
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   6 704.53217 1.686E 04-3.731E 01-1.106E 00-3.397E 01 2.589E 02 1.663E 01-3.268E 02-7.10E 05-1.64E 0  REC      9. LENGTH    120
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