

#429

ESA-GEOS-1

DATA SETS FOR CDWA

77-029A-01B, 01C, 03B, 04B, 05B, 06B, 06C, 07B, 09B

02B, 03C, 04C, 06D

77-029A-01B - SPMS 00347

" 01C - SPMS - 00535

" 02B - SPMS - 00360

" 03B SPMS-00032

" 03C - SPMS-00534

" 04B- SPMS-00153

" 05B-SPMS-00601

" 06B-SPMS-00377

" 06C-SPMS-00152

" 06D SPMS-00151

" 07B SPMS-00533

" 09B SPMS 00150

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INFORMATION SYSTEM
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1. INTRODUCTION:

The documentation for this data set was originally on paper, kept in NSSDC's Data Set Catalogs (DSCs). The paper documentation in the Data Set Catalogs have been made into digital images, and then collected into a single PDF file for each Data Set Catalog. The inventory information in these DSCs is current as of July 1, 2004. This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system. The information existing in the DSCs is now not needed for locating the data files, but we did not remove that inventory information.

The offline tape datasets have now been migrated from the original magnetic tape to Archival Information Packages (AIP's).

A prior restoration may have been done on data sets, if a requestor of this data set has questions; they should send an inquiry to the request office to see if additional information exists.

2. ERRATA/CHANGE LOG:

NOTE: Changes are made in a text box, and will show up that way when displayed on screen with a PDF reader.

When printing, special settings may be required to make the text box appear on the printed output.

Version	Date	Person	Page	Description of Change
01				
02				

3 LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC
INFORMATION SYSTEM:

<http://nssdc.gsfc.nasa.gov/nmc/>

[NOTE: This link will take you to the main page of the NSSDC Master Catalog. There you will be able to perform searches to find additional information]

4. CATALOG MATERIALS:

- a. Associated Documents To find associated documents you will need to know the document ID number and then click here.
<http://nssdcftp.gsfc.nasa.gov/miscellaneous/documents/>

- b. Core Catalog Materials

ESA-GEOS 1

RAW ENERGETIC PARTICLES DATA

77-029A-01B SPMS-00347

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on a 4/72 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005849	DS005849	D032276	1 - 24	12/01/77 - 12/12/77

ESA-GEOS-1

ENERGETIC PARTICLES

77-029A-01B

This data set catalog consists of 1 data tape. The tape is 9 track, 1600 BPI, Binary with 24 files of data. The tape was created on a CII 10070 and on the ICL 4/72 computer. The final tape was merged on the ICL 4/72 computer.

The time span is as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-32276	C-20183	12/01/77 - 12/12/77

NOTE: In finding time span the modified Julian Day (MJD) is used.
MJD 1, 1977 = 9361.

LOW-SPEED DATA TAPES

DATE 28/12/76

GENERAL NOTES ON LAYOUT

INTRODUCTION

GEOS LOW-SPEED TELEMETRY DATA IS PROCESSED BY THE NSSS AND FINALLY WRITTEN TO A TEMPORARY POOL OF TAPES BY THE CII 10070 COMPUTER. THESE TAPES ARE USED AS INPUT TO THE ICL 4/72 WHERE THE TASKS OF ARCHIVING AND PRODUCTION OF EXPERIMENTERS' TAPES ARE PERFORMED.

FACILITIES ARE PROVIDED TO MERGE THE REQUIRED ORBIT AND ATTITUDE INFORMATION (HEREAFTER REFERRED TO AS AUXILIARY INFORMATION) BOTH ON THE CII 10070 AND ON THE ICL 4/72 MACHINES. UNDER NORMAL CIRCUMSTANCES THE AUXILIARY DATA CAN BE MERGED IN NEAR REAL-TIME, BUT THE CONTINGENCY OF BEING ABLE TO GENERATE THESE DATA AT A LATER STAGE TO BE MERGED WITH THE TELEMETRY DATA ON THE ICL 4/72 IN BATCH MODE IS CONSIDERED NECESSARY.

AT THE TIME OF WRITING OF THIS DOCUMENT THE ICL 4/72 IS THE ONLY MACHINE WHICH WILL PERFORM THE OFF-LINE DP FOR GEOS. THE CASE OF THIS COMPUTER IS SUCH THAT DP SOFTWARE WRITTEN MUST BE TAILORED FOR THE CONFIGURATION, AND WRITTEN IN SUCH A MANNER AS TO MINIMIZE THE AMOUNT OF COMPUTER TIME USED. IF THIS IS NOT DONE, THE RESIDENT TIME OF THE DP PROGRAMS MAY BE TOO LONG TO KEEP PACE WITH THE INCOMING DATA. ONE EXAMPLE OF HOW THIS EFFECTS THE EXPERIMENTERS' TAPES IS THE CONSTRAINT IMPOSED BY THE DISKS USED. THE DISK SPACE IS USED MOST EFFICIENTLY BY CREATING PHYSICAL RECORDS AS NEAR TO THE TRACK SIZE AS POSSIBLE, BUT NOT LARGER THAN A TRACK. THE INPUT/OUTPUT TIME IS ALSO KEPT TO A MINIMUM BY READING AND WRITING FULL TRACKS. THE DISKS AVAILABLE ON THE ICL 4/72 MACHINE HAVE A TRACK CAPACITY FOR DATA OF 7294 BYTES, THUS THERE IS THE CONSTRAINT THAT DATA BLOCKS ARE AS NEAR TO 7294 BYTES AS POSSIBLE BUT WITHOUT EXCEEDING THIS SIZE.

SPECIFICATION OF EXPERIMENTERS' TAPES

ESOC JA/JA/11

LOW-SPEED DATA TAPES

DATE 28/12/76

GENERAL NOTES ON LAYOUT

THE FINAL LAYOUT OF EXPERIMENTERS' TAPES IS NECESSARILY A COMPROMISE BETWEEN THE VARIOUS REQUIREMENTS OF THE EXPERIMENTS AND THE CONSTRAINTS OF THE ESOC COMPUTER SYSTEM. AGREEMENT HAS BEEN REACHED THAT THE EXPERIMENTERS' TAPES WILL HAVE FORMATS ACCORDING TO THE FOLLOWING SPECIFICATIONS:

- 1) AUXILIARY DATA IS GIVEN AT ONE OF TWO FREQUENCIES: ONCE PER 64 LS FORMATS (SLOWLY VARYING AUXILIARY DATA) OR ONCE PER 4 LS FORMATS (FAST-VARYING AUXILIARY DATA). THE AUXILIARY DATA BLOCKS ARE OF FIXED LENGTH, BEING 60 BYTES FOR THE SLOWLY VARYING AND 18 BYTES FOR THE FAST-VARYING DATA.
- 2) THE SMALLEST UNIT OF DATA IS 4 LS TELEMETRY FORMATS, WITH FORMAT COUNTERS HAVING THE VALUES $4N, 4N+1, 4N+2, 4N+3$ WHERE N IS AN INTEGER. WITH EACH 4-FORMAT UNIT THERE IS THE ASSOCIATED FAST-VARYING AUXILIARY DATA (SEE DESCRIPTION OF 4-FORMAT UNIT).
- 3) SLOWLY-VARYING AUXILIARY DATA IS IN A SEPARATE FILE ON THE TAPE TO THE FILE CONTAINING FAST-VARYING AUXILIARY DATA AND TELEMETRY DATA. THE FILES ARE IN PAIRS, THE FIRST FILE CONTAINING THE SLOWLY-VARYING AUXILIARY DATA, THE SECOND FILE CONTAINING THE CORRESPONDING TELEMETRY DATA. A TAPE CONTAINS EITHER ONE FILE OF EACH TYPE OR SEVERAL PAIRS OF FILES. THERE IS NO SPANNING OF FILES BETWEEN TAPES, THUS IF THERE IS MORE THAN ONE PAIR OF FILES ON A TAPE, THE LENGTH OF A FILE SHOULD BE SHORT IN COMPARISON WITH THE LENGTH OF TAPE TO ENSURE A MINIMUM OF TAPE WASTAGE.
- 4) FOR THE CHOICE OF SEVERAL PAIRS OF FILES PER TAPE, A FIXED NUMBER OF FORMATS IS CHOSEN AS A FILE LENGTH. THIS NUMBER MUST BE DIVISIBLE BY 64. UNITS OF 4 FORMATS ARE GIVEN IN FULL, WITH DUMMY DATA IF PART OF THE UNIT IS MISSING, BUT IF A FULL 4-FORMAT UNIT IS MISSING, THEN THIS UNIT IS OMITTED FROM THE TAPE. THIS EVENT CAN OF COURSE BE DETECTED BY AN ABNORMAL JUMP IN THE FORMAT COUNTER BETWEEN ADJACENT 4-FORMAT UNITS.
IF THERE IS NO DATA AT ALL FOR THE DURATION OF ONE FILE, THEN ONE DUMMY RECORD IS INSERTED TO AVOID HAVING TWO ADJACENT TAPE MARKS IN THE MIDDLE OF THE TAPE. THIS IS LOGICALLY NOT NECESSARY, BECAUSE THE END OF TAPE IS ONLY EXPECTED AFTER THE END OF A TELEMETRY DATA FILE; THERE ARE HOWEVER HARDWARE CONSTRAINTS WHICH NECESSITATE THIS PROCEDURE.

GEOS DATA PROCESSING

SPECIFICATION OF EXPERIMENTERS' TAPES

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LOW-SPEED DATA TAPES

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GENERAL NOTES ON LAYOUT

- 5) THE END OF DATA ON THE TAPE IS INDICATED BY A DOUBLE TAPE MARK. THE PROCEDURE ADOPTED IS THE FOLLOWING:-
- A) TAPES WITH ONE PAIR OF FILES ARE CREATED WITH ENOUGH DATA IN THE SLOWLY-VARYING AUXILIARY FILE TO COVER TELEMETRY DATA FOR A PERIOD JUST LARGER THAN CAN FIT ON ONE TAPE. TELEMETRY DATA IS WRITTEN UNTIL THE ESTIMATED SPACE LEFT IS VERY SMALL, AND A DOUBLE TAPE MARK IS WRITTEN.
 - B) TAPES WITH SEVERAL PAIRS OF FILES ARE WRITTEN UNTIL THE ESTIMATED SPACE LEFT ON THE TAPE IS TOO SMALL FOR AN ADDITIONAL 2 FILES, AND A DOUBLE TAPE MARK IS WRITTEN.
- IT THUS FOLLOWS THAT FOR A TAPE WITH ONE PAIR OF FILES, THE SLOWLY-VARYING AUXILIARY DATA WILL COVER A LARGER PERIOD THAN THE TELEMETRY DATA. FOR ALL TAPES THE START OF SLOWLY-VARYING AUXILIARY DATA AND THE START OF TELEMETRY DATA REFER OF COURSE TO THE SAME POINT IN TIME. THERE WILL BE NO OVERLAP OF TELEMETRY DATA BETWEEN DATA TAPES.
- 6) FOR TAPES WITH SEVERAL FILES PER TAPE, TELEMETRY DATA FILES ARE OF FIXED LENGTH, BEING A NUMBER OF LS FORMATS DIVISIBLE BY 64. THIS ENSURES THAT A SLOWLY-VARYING AUXILIARY DATA BLOCK CORRESPONDS TO THE BEGINNING OF TELEMETRY DATA FILE. IT FOLLOWS THAT A DATA FILE CANNOT BE CONSTRAINED TO START AT A PARTICULAR TIME OF DAY.
- 7) A STANDARD 80-BYTE VOL1 HEADER LABEL IS THE FIRST RECORD ON EVERY TAPE, UNLESS THE COMPUTER WHICH READS THE TAPES CANNOT ACCEPT THIS. THERE ARE NO OTHER LABELS ON THE TAPES. no!
- 8) ALL TAPE VOLUME SERIAL NUMBERS ARE SIX NUMERIC CHARACTERS WITH VALUES LYING BETWEEN 100000 AND 199999. IT IS APPRECIATED THAT THIS RESTRICTION MAY CAUSE SOME INCONVENIENCE, BUT THE LARGE NUMBER OF TAPES WHICH ESOC HAS TO HANDLE IMPOSES A PROBLEM WHICH IS SIMPLIFIED IF EACH SATELLITE HAS ITS OWN RANGE OF NUMBERS. THIS EXCLUDES THE POSSIBILITY OF SPECIAL SET NAMES FOR INDIVIDUAL EXPERIMENTERS.
- 9) NEGATIVE NUMBERS ARE REPRESENTED IN TWO'S COMPLEMENT FORM.

SPECIFICATION OF EXPERIMENTERS' TAPES

ESOC JA/JA/11

LOW-SPEED DATA TAPES

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THE FORMAT COUNTER

THE FORMAT COUNTER IS A COUNTER WHICH HAS ITS ORIGIN IN THE LS TELEMETRY. AT LAUNCH, THE FORMAT COUNTER GIVEN ON EXPERIMENTERS' TAPES IS THE SAME VALUE AS THE COUNTER EXTRACTED FROM THE TELEMETRY DATA. THE VALUES ARE SMOOTHED AND AN INTERPOLATED VALUE SUBSTITUTED WHERE THE DATA QUALITY IS NOT PERFECT. THE INTENTION IS TO PROVIDE AN ABSOLUTELY RELIABLE REFERENCE NUMBER FOR A TELEMETRY FORMAT, WHERE THIS NUMBER INCREASES MONOTONICALLY WITH TIME. AN INITIAL ASSUMPTION IS THAT THE SPACECRAFT CLOCK BEHAVES ITSELF AND THAT THE FORMAT COUNTER INCREASES BY ONE EVERY LS FORMAT, RECYCLING WITH A FIXED FREQUENCY. THE TELEMETRY FORMAT COUNTER IS CHECKED AGAINST TIME FOR ALL FORMATS, AND BECAUSE THE FORMAT LENGTH IS FIXED WITHIN FAIRLY ACCURATE LIMITS, ANY MISBEHAVIOUR OF THE FORMAT COUNTER CAN BE EASILY DETECTED. IN THE EVENT THAT THIS COUNTER SHOWS ERRORS, THEN A FORMAT COUNTER IS GENERATED FROM THE TIMING INFORMATION GIVEN WITH THE DATA, AND DOES NOT CORRESPOND WITH THE FORMAT COUNTER IN THE TELEMETRY. ASSUMING THEN THAT THE TIMING INFORMATION WITH THE DATA IS CORRECT TO AN ACCURACY OF SAY 0.1 SECONDS, WHICH IS 10000 TIMES LARGER THAN NOMINAL ACCURACY, ONE CAN PLACE ABSOLUTE CONFIDENCE ON THE FORMAT COUNTER VALUE WHICH WILL APPEAR ON THE TAPES.

AT LAUNCH, THE FORMAT COUNTER ON EXPERIMENTERS TAPES IS THE SAME AS THE COUNTER IN THE TELEMETRY. BECAUSE THIS COUNTER OVERFLOWS IN THE ORDER OF 3 TIMES IN THE NOMINAL LIFETIME OF GEOS, THE COUNTER ON EXPERIMENTERS' TAPES IS AUGMENTED TO THE LENGTH OF 32 BITS AND DOES NOT OVERFLOW. ASSUMING THAT THE FORMAT COUNTER IN THE TELEMETRY BEHAVES NORMALLY, THE LOWEST ORDER 24 BITS OF THE COUNTER ON EXPERIMENTERS' TAPES CORRESPOND TO THIS FORMAT COUNTER, AND THE HIGHEST ORDER BITS ARE A COUNT OF THE NUMBER OF TIMES THAT THIS COUNTER HAS OVERFLOWED.

II THE FORMAT COUNTER ON EXPERIMENTERS' TAPES THUS INCREASES
II MONOTONICALLY WITH TIME, AND IS UNIQUE OVER THE NOMINAL TWO-YEAR
II LIFETIME OF GEOS.

N.B. IF THE SATELLITE TRANSMITTER IS SWITCHED OFF AND ON, THE FORMAT COUNTER WILL RESTART AT A RANDOM VALUE. IN THIS CASE, A COUNTER WILL BE GENERATED TO ENSURE (IF POSSIBLE) THAT THE COUNTER INCREASES MONOTONICALLY WITH TIME. THERE WOULD THUS BE A CONSTANT DIFFERENCE BETWEEN SPACECRAFT FC AND GENERATED FC IN THIS CASE.

GEOS DATA PROCESSING

SPECIFICATION OF EXPERIMENTERS' TAPES

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LOW-SPEED DATA TAPES

DATE 28/12/76

THE QUALITY INFORMATION

A 4-FORMAT UNIT IS GIVEN IN FULL EVEN WHEN SOME OF THE UNIT IS MISSING, OR WHEN THERE IS SOME REASON TO SUSPECT THE QUALITY OF SOME OR ALL OF THE FORMATS IN THE UNIT. IF THE DATA ARE NOT PRESENT FOR ANY OF THE FORMATS, THE UNIT IS NOT WRITTEN TO TAPE.

THE QUALITY OF A 4-FORMAT UNIT IS DESCRIBED BY THE 4 QUALITY BYTES GIVEN WITH EACH UNIT. THE FIRST, SECOND, THIRD, AND FOURTH BYTES REFER TO THE FIRST, SECOND, THIRD, AND FOURTH FORMATS RESPECTIVELY, AND HAVE THE FOLLOWING VALUES :

BYTE = 0 GOOD QUALITY TELEMETRY FORMAT

BYTE = 1 THE QUALITY OF ALL OR SOME OF THE FRAMES IN THE FORMAT IS SUSPECT

BYTE = 2 THE TELEMETRY FORMAT IS MISSING AND DUMMY DATA HAS BEEN SUBSTITUTED.

THE QUALITY DATA IS ALIGNED ON A 4-BYTE BOUNDARY AND HAS A LENGTH OF 4 BYTES, AND SO MOST USERS CAN ACCESS THIS INFORMATION AS ONE WORD. THUS A NECESSARY AND SUFFICIENT CONDITION THAT A 4-FORMAT UNIT IS OF GOOD QUALITY IS THAT THIS QUALITY WORD HAS A VALUE OF ZERO.

THE QUALITY DATA OCCUPIES MORE SPACE THAN IS ACTUALLY NECESSARY, BECAUSE THE INFORMATION GIVEN COULD IN FACT BE PACKED INTO ONE BYTE. THE INTENTION IS TO LEAVE SOME ROOM FOR ADDITIONAL INFORMATION SHOULD THIS BE NECESSARY AFTER LAUNCH.

DUMMY DATA HAS THE VALUE 'FFF' HEXADECIMAL, I.E. ALL ONES.

GEOS DATA PROCESSING

SPECIFICATION OF EXPERIMENTERS' TAPES

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LOW-SPEED DATA TAPES

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PROCEDURES FOR DISPATCH OF TAPES

TAPES ARE SENT TO THE MAIL OFFICE TO BE DISPATCHED IMMEDIATELY AFTER BEING WRITTEN. FOR LARGE NUMBERS OF TAPES TO ONE DESTINATION THE TAPES ARE DISPATCHED IN FIXED QUANTITIES OR AT REGULAR INTERVALS, AND THE EXACT PROCEDURE HAS YET TO BE DEFINED. MOST TAPES ARE DISPATCHED IN ONES BY AIR MAIL.

ONCE PER MONTH A LISTING OF ALL TAPES THAT HAVE BEEN DISPATCHED IS SENT TO ALL EXPERIMENTERS, TO ENABLE THEM TO DETECT WHETHER ANY TAPES HAVE BEEN LOST IN TRANSIT. THIS LISTING IS OF COURSE ACCUMULATIVE SO THAT IF A LISTING IS LOST THE NEXT LISTING CAN BE USED. IT IS ASSUMED THAT ALL TAPES ARE READ AT LEAST ONCE ON RECEIPT TO CHECK FOR ERRORS.

IF WITHIN 4 MONTHS OF DISPATCH OF A TAPE ESOC IS NOT INFORMED IN WRITING THAT THE TAPE IS EITHER LOST OR UNREADABLE, IT IS ASSUMED THAT THE TAPE HAS BEEN ACCEPTED AND THAT THE FACILITIES FOR GENERATING AN IDENTICAL TAPE WILL NO LONGER BE REQUIRED.

EACH TAPE HAS A STICKY LABEL STUCK ON IT WHICH IDENTIFIES THE USER, THE DATA SET (E.G. S300 FILTERBANK, S310) AND AT LEAST THE START TIME OF THE DATA ON IT IN THE FORM OF TIME OR FORMAT COUNTER TO ENABLE THE USER TO DETERMINE THE CHRONOLOGICAL ORDER OF THE TAPES. THE EXACT CONTENTS OF THIS LABEL ARE NOT YET DEFINED.

GEOS DATA PROCESSING

SPECIFICATION OF EXPERIMENTERS' TAPES

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LOW-SPEED DATA TAPES

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AUXILIARY DATA

PAGE 1 OF GENERAL NOTES

1) THE FAST-VARYING AUXILIARY DATA ARE CONTAINED IN THE 4-FORMAT UNIT AND THE SLOWLY-VARYING AUXILIARY DATA ARE GIVEN AS 60-BYTE LOGICAL RECORDS BLOCKED INTO LARGER PHYSICAL BLOCKS. IN BOTH DEFINITIONS, THE OFFSET INDICATES THE OFFSET FROM THE BEGINNING OF THE AUXILIARY DATA UNIT

2) THE MAGNETIC FIELD VALUES GIVEN IN THE FAST-VARYING AUXILIARY DATA ARE REFRESHED AT A FREQUENCY DEFINED BY S331, WHICH IS LESS OFTEN THAN THE FREQUENCY OF THESE DATA ON THE TAPE.

THE FULL MAGNETIC VECTOR (COMPONENTS IN THE VDH SYSTEM) IS GIVEN EVERY 4-FORMATS, BUT THE VALUE IS CONSTANT OVER A PERIOD OF 64 FORMATS. THE MAGNETIC FIELD DIRECTION (POLAR AND AZIMUTH DIRECTION ANGLES) IS GIVEN EVERY 4-FORMATS, BUT THE VALUES ARE KEPT CONSTANT OVER A PERIOD OF 16 FORMATS. BOTH THESE TIME PERIODS ARE ALIGNED ON A 64-FORMAT BOUNDARY, CORRESPONDING TO THE PERIOD STARTED BY A SLOWLY-VARYING AUXILIARY DATA UNIT.

3) THE ATTITUDE VALUES GIVEN IN THE FAST-VARYING AUXILIARY DATA ARE SMOOTHED SO THAT THE VALUES DURING ECLIPSE ARE THE VALID INTERPOLATED VALUES.

4) THE VDH COORDINATE SYSTEM IS DEFINED AS :

V : VERTICAL, DIRECTED AWAY FROM THE CENTRE OF EARTH
ALONG THE LINE CENTRE OF EARTH - SATELLITE

D : HORIZONTAL, DIRECTED TOWARDS EAST, PERPENDICULAR TO V
AND TO THE SPIN AXIS OF THE EARTH

H : HORIZONTAL, APPROXIMATELY DIRECTED TOWARDS THE
GEOGRAPHIC NORTH POLE, COMPLETING THE VDH TRIAD

GEOS II *update* *Seite 1*

GEOS DATA PROCESSING

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LOW-SPEED DATA TAPES

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AUXILIARY DATA

PAGE 2 OF GENERAL NOTES

5) THE EULER ANGLES ARE DEFINED THUS :

THE POSITION OF A MUTUALLY ORTHOGONAL SET OF AXES Y1,Y2,Y3 IN A COORDINATE SYSTEM OF THE MUTUALLY ORTHOGONAL AXES X1,X2,X3 CAN BE UNIQUELY DEFINED BY 3 ANGLES OF ROTATION. IF K IS THE LINE OF INTERSECTION OF THE PLANES X1X2 AND Y1Y2, A ROTATION OF A1 ABOUT THE X3 AXIS BRINGS THE X1 AXIS INTO K :

$$A1 = \begin{pmatrix} \cos A1 & \sin A1 & 0 \\ -\sin A1 & \cos A1 & 0 \\ 0 & 0 & 1 \end{pmatrix}$$

A ROTATION A2 ABOUT K BRINGS X3 ONTO Y3 AND X2 INTO THE Y1Y2 PLANE :

$$A2 = \begin{pmatrix} 1 & 0 & 0 \\ 0 & \cos A2 & \sin A2 \\ 0 & -\sin A2 & \cos A2 \end{pmatrix}$$

A ROTATION A3 ABOUT Y3 BRINGS K INTO Y1 AND X2 INTO Y2 :

$$A3 = \begin{pmatrix} \cos A3 & \sin A3 & 0 \\ -\sin A3 & \cos A3 & 0 \\ 0 & 0 & 1 \end{pmatrix}$$

THESE ARE THE FIRST, SECOND AND THIRD EULER ANGLES RESPECTIVELY

GEOS DATA PROCESSING

SPECIFICATION OF EXPERIMENTERS' TAPES

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LOW-SPEED DATA TAPES

DATE 28/12/76

FAST-VARYING AUXILIARY DATA

OFFSET	LENGTH		
8321			
0 24	2	FIRST EULER ANGLE	SATELLITE ATTITUDE
2	2	SECOND EULER ANGLE	EULER ANGLES IN VDH
4	2	THIRD EULER ANGLE	SYSTEM, UNITS OF ONE
			HUNDREDTH DEGREE, IN
			THE RANGE ± 180 DEG.

THESE VALUES CORRESPOND TO THE TIME OF THE RISE OF THE FIRST BIT OF THE FIRST SYNCH WORD (CHAN 00) OF THE FIRST FRAME (00) OF THE FIRST FORMAT IN A 4-FORMAT UNIT.

6	2	ANGULAR VELOCITY IN VDH SYSTEM ; ANGLE
		ROTATED PER FORMAT IN UNITS OF
		ONE HUNDREDTH OF A DEGREE

8	2	V	constant value	MAGNETIC FIELD
10	2	D	64 Format	
12	2	H	5.10	COMPONENTS IN THE VDH SYSTEM,
				IN UNITS OF ONE MILLIONTH GAUSS

14	2	POLAR		DIRECTION ANGLES, SPACECRAFT
16	2	AZIMUTH		FIXED, IN UNITS OF ONE
				HUNDREDTH DEGREE.
				THE POLAR ANGLE IS THE ANGLE
				BETWEEN THE +Z AXIS AND THE
				VECTOR (RANGE 0-180 DEG.)
				THE AZIMUTH ANGLE IS THE ANGLE
				BETWEEN THE +X AXIS AND THE
				OF THE VECTOR ON THE XY PL
				(RANGE ± 180 DEGREES, POSITIVE
				IN THE DIRECTION OF +Y)

18 BYTES TOTAL

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SPECIFICATION OF EXPERIMENTERS' TAPES

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SLOWLY-VARYING AUXILIARY DATA

PAGE 1

OFFSET	LENGTH	
0	4	LOW-SPEED FORMAT COUNTER OF THE FIRST LS FORMAT TO WHICH THE BLOCK REFERS (ALWAYS DIVISIBLE BY 64)
4	4	MODIFIED JULIAN DAY (1.1.1977 = 9862.0) -- N.B. --
8	4	MILLISECS OF DAY OF RISE OF FIRST BIT OF FIRST FORMAT
12	4	MEAN DURATION OF AN LS FORMAT IN MICROSECONDS
16	4	HS-COUNTER VALUE AT TIME OF LAST CALC. OF PLASMA FREQ.
20	1	PLASMA FREQUENCY QUALITY FLAG FROM H.P. COMPUTER
21	1	SPARE
22	2	PLASMA FREQUENCY, UNITS OF 5 HERTZ
SATELLITE POSITION		
(COROTATING GEOCENTRIC EQUATORIAL COORDINATES)		
24	2	LATITUDE, INTEGER ± 90 DEG., UNITS OF HUNDREDTH DEG.
26	2	LONGITUDE, INTEGER ± 180 DEG., UNITS OF HUNDREDTH DEG.
28	2	DISTANCE FROM CENTRE OF EARTH, UNITS OF 10 KMS.
SATELLITE ATTITUDE (VDH COORDINATES)		
30	2	V DIRECTION COSINES OF THE SPIN AXIS
32	2	D NORMALISED TO 10000
34	2	H
OTHER QUANTITIES		
36	2	V DIRECTION COSINES OF THE MAGNETIC DIPOLE
38	2	D IN THE VDH SYSTEM, NORMALISED TO 10000
40	2	H (11.4 DEG COLAT, ± 70.1 DEG LONG)
42	2	
44	2	

LOW-SPEED FORMAT COUNTER OF THE FIRST LS FORMAT TO WHICH THE BLOCK REFERS (ALWAYS DIVISIBLE BY 64)

MODIFIED JULIAN DAY (1.1.1977 = 9862.0) -- N.B. --

MILLISECS OF DAY OF RISE OF FIRST BIT OF FIRST FORMAT

MEAN DURATION OF AN LS FORMAT IN MICROSECONDS

HS-COUNTER VALUE AT TIME OF LAST CALC. OF PLASMA FREQ.

PLASMA FREQUENCY QUALITY FLAG FROM H.P. COMPUTER

SPARE

PLASMA FREQUENCY, UNITS OF 5 HERTZ

SATELLITE POSITION

(COROTATING GEOCENTRIC EQUATORIAL COORDINATES)

LATITUDE, INTEGER ± 90 DEG., UNITS OF HUNDREDTH DEG.

LONGITUDE, INTEGER ± 180 DEG., UNITS OF HUNDREDTH DEG.

DISTANCE FROM CENTRE OF EARTH, UNITS OF 10 KMS.

SATELLITE ATTITUDE (VDH COORDINATES)

V | DIRECTION COSINES OF THE SPIN AXIS

D | NORMALISED TO 10000

H |

OTHER QUANTITIES

V | DIRECTION COSINES OF THE MAGNETIC DIPOLE

D | IN THE VDH SYSTEM, NORMALISED TO 10000

H | (11.4 DEG COLAT, ± 70.1 DEG LONG)

*Make sure of a plasma frequency
understanding of the
magnetic field and its effect*

GEOS DATA PROCESSING

SPECIFICATION OF EXPERIMENTERS' TAPES

ESOC JA/JA/11

LOW-SPEED DATA TAPES

DATE 23/12/76

SLOWLY-VARYING AUXILIARY DATA

PAGE 2

OFFSET LENGTH

42	2	V	1	DIRECTION COSINES OF THE DIRECTION OF THE
44	2	D	1	SUN FROM THE CENTRE OF THE EARTH IN THE
46	2	H	1	VDH SYSTEM. NORMALISED TO 10000
48	2	ANGLE BETWEEN THE 2 LINES EARTH-CENTRE TO SATELLITE AND		
		SUN TO EARTH-CENTRE (I.E. ECLIPSE AT ZERO ANGLE)		
		POSITIVE 0 = 180 DEG, UNITS OF HUNDREDTH DEGREE		
50	2	RIGHT ASCEN.	1	SPIN AXIS TILT IN SPACECRAFT
52	2	DECLINATION	1	COORDINATES, UNITS OF HUNDREDTH DEG
54	4	SPARE		
58	1	QUALITY BYTE : BITS(POWER OF 2)		
		7-6	ORBIT	1 FOR EACH 2-BIT
		5-4	ATTITUDE	1 FLAG, 0 = GOOD
		3-2	OTHERS	1 = POOR
		1-0	TIMING	3 = EXTRAPL.
59	1	RESERVED		

60 BYTES TOTAL

NOTE 1- QUALITY BITS ARE GIVEN TO INDICATE HOW DATA ARE GENERATED. BITS ARE ZERO IF DATA HAS NOMINAL ACCURACY, AND 01 IF THE DATA IS OF POOR BUT FINAL QUALITY, E.G. ATTITUDE AROUND A MANOUEVER. BITS 11 INDICATE THAT EITHER AN INTERPOLATION BETWEEN OR EXTRAPOLATION FROM GOOD DATA HAS BEEN PERFORMED.

A NECESSARY AND SUFFICIENT CONDITION THAT ALL DATA ARE GOOD IS BYTE 58 = 0

GEOS II - update series

GEOS DATA PROCESSING

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LOW-SPEED DATA TAPES

DATE 28/12/76

PAYLOAD STATUS INDEX

PAGE 1

OFFSET	LENGTH	EXPERIM.
0	2	
2	1	
3	1	
4	1	S300
5	1	S302
6	1	S303
7	1	S310
8	1	S321
9	1	S329
10	1	S331
11	1	
12	1	
13	1	
14	1	
15	1	
16	6	S302
22	6	S302
28	1	S302
29	1	S302
30	1	S302
31	1	S302
32	6	S300
40	8	S300

QUALITY

22, 2, (2)

SEE NOTE 1

SEE NOTE 2

ON/OFF

1 = ON

SEE NOTE 2.1

ON/OFF

SEE NOTE 2.2

ON/OFF

34, 1, (2)

SEE NOTE 2.3

ON/OFF

SEE NOTE 2.4

ON/OFF

0, 1, (2)

SEE NOTE 2.5

ON/OFF

SEE NOTE 2.6

ON/OFF

SEE NOTE 2.7

VHF TRANSPONDERS ON/OFF 1 = ONE IS ON

SEE NOTE 2.12

MAX 1 ENERGY RANGE WITHIN 4

MIN 1 FORMATS

SEE NOTE 3

ANALYSIS MODE

SEE NOTE 4

DETECTOR MODE

SEE NOTE 5

OSCILLATOR SELECTION (ON/OFF)

SEE NOTE 6

COLLIMATOR BIAS (ON/OFF)

SEE NOTE 7

SFA STARTING FREQUENCY

SEE NOTE 8

NUMBER OF SCIENTIFIC PROGRAMME

SEE NOTE 9

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OFFSET	LENGTH	EXPERIM.		SEE NOTE 1
48	4	S300	SFA NUMBER OF STEPS	SEE NOTE 10
52	4	S300	CORRELATOR MODE	SEE NOTE 11
56	2	S300	CORRELATOR FREQUENCY	SEE NOTE 12
58	1	S300	CALIBRATION OR S304 ON/OFF	SEE NOTE 13
59	1	S300	S301 TRANSMITTER ON/OFF	SEE NOTE 14
60	1	S300	ULF BZ OR EY SELECTED	SEE NOTE 15
61	1	S331	CALIBRATION OR FLIPPER	SEE NOTE 16
62	2	S321	DETECTORS SELECTED	SEE NOTE 34
64	204(2)	S303	EXPERIMENT MODE	SEE NOTE 17
65	2	S303	TYPE OF SCAN	SEE NOTE 18
67	2	S310	GROUP 1 MODE A,B OR C	SEE NOTE 19
69	1	S310	GROUP 1 POLARITY	SEE NOTE 20
70	2	S310	GROUP 2 MODE A,B OR C	SEE NOTE 21
72	1	S310	GROUP 2 POLARITY	SEE NOTE 22
73	2	S310	FIXED ENERGY FOR GROUP 1,2	SEE NOTE 23
76	2	S310	GROUP 3 MODE A,B OR C	SEE NOTE 24
78	1	S310	GROUP 3 POLARITY	SEE NOTE 25
79	1		SPARE	
80	2	S310	GROUP 4 MODE A,B OR C	SEE NOTE 26
82	1	S310	GROUP 4 POLARITY	SEE NOTE 27
83	2	S310	FIXED ENERGY FOR GROUPS 3,4	SEE NOTE 28
86	2	S310	SAMPLING MODE	SEE NOTE 29
88	2	S321	MODE SELECTED	SEE NOTE 30
90	2	S329	GUN SELECTED	SEE NOTE 31
92	2	S329	ENERGY SELECTED	SEE NOTE 32
94	2	S329	CURRENT SELECTED	SEE NOTE 33

GEOS DATA PROCESSING

SPECIFICATION OF EXPERIMENTERS' TAPES

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OFFSET LENGTH EXPERIM.

SEE NOTE 1

96	1	RESERVED FOR FUTURE USE
97	1	RESERVED FOR FUTURE USE
98	1	RESERVED FOR FUTURE USE
99	1	RESERVED FOR FUTURE USE
100	1	RESERVED FOR FUTURE USE
101	1	RESERVED FOR FUTURE USE
102	1	RESERVED FOR FUTURE USE
103	1	RESERVED FOR FUTURE USE
104	1	RESERVED FOR FUTURE USE
105	1	RESERVED FOR FUTURE USE
106	1	RESERVED FOR FUTURE USE
107	1	RESERVED FOR FUTURE USE
108	1	RESERVED FOR FUTURE USE
109	1	RESERVED FOR FUTURE USE
110	1	RESERVED FOR FUTURE USE
111	1	RESERVED FOR FUTURE USE
112	1	RESERVED FOR FUTURE USE
113	1	RESERVED FOR FUTURE USE
114	1	RESERVED FOR FUTURE USE
115	1	RESERVED FOR FUTURE USE
116	1	RESERVED FOR FUTURE USE
117	1	RESERVED FOR FUTURE USE
118	1	RESERVED FOR FUTURE USE
119	1	RESERVED FOR FUTURE USE
120	1	RESERVED FOR FUTURE USE
121	1	RESERVED FOR FUTURE USE
122	1	RESERVED FOR FUTURE USE
123	1	RESERVED FOR FUTURE USE
124	1	RESERVED FOR FUTURE USE
125	1	RESERVED FOR FUTURE USE
126	1	RESERVED FOR FUTURE USE
127	1	RESERVED FOR FUTURE USE

BITS TOTAL = 16 BYTES

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NOTE

----- SOURCE -----

FORMT	FRAME	CHAN	BIT
(0-3)	(0-31)	(0-63)	(POW.2)

THE OFFSETS AND LENGTHS ARE GIVEN IN BITS. ANY REFERENCE TO A BIT POSITION IS THE POWER OF TWO ($7=0$) WITHIN A BYTE, OR, IF A FIELD OF BITS STRADDLING A BYTE BOUNDARY, THE POWER OF TWO ($15=0$) WITHIN A BYTE PAIR.

00 = GOOD QUALITY FOR 4 FORMATS
01 = SOME DATA SUSPECT
10 = SOME DATA MISSING
11 = ALL DATA MISSING

2.1	0	10	32	04
	0	10	32	06
	0	25	49	07=00
	0	10	33	01

= CONV.1 = A
= CONV.2 = B
= S300.10/12 = C
= S300.11 = D
S300 ON/OFF BIT IS SET TO 1 IFF
((A=1) OR (B=1)) AND (C.GT.128) AND D=1

2.2	0	10	32	03
-----	---	----	----	----

S302 EHT 1=ON

2.3	0	02	33	07
-----	---	----	----	----

S303 EHT 1=ON

2.4	0	10	33	04
-----	---	----	----	----

= CONV.1 | EXP IS ON IFF
= CONV.2 | (EHT 1 OR EHT 2 = 1)
AND

	0	10	33	06
--	---	----	----	----

= EHT.2 |
= EHT.1 | (CONV1 OR CONV2 = 1)

	0	10	32	00
--	---	----	----	----

= CONV.1 | EXP IS ON IFF

	0	10	32	02
--	---	----	----	----

= CONV.2 | CONV1 OR CONV2 = 1

2.5	0	10	32	05
-----	---	----	----	----

= CONV.1 | EXP IS ON IFF

	0	10	32	07
--	---	----	----	----

= CONV.2 | CONV1 OR CONV2 = 1

2.6	0	02	33	01
-----	---	----	----	----

= CONV.1 | EXP IS ON IFF

	0	02	32	06
--	---	----	----	----

= CONV.2 | CONV1 OR CONV2 = 1

2.7	0	10	33	03
-----	---	----	----	----

= CONV.1 | EXP IS ON IFF

	0	10	33	05
--	---	----	----	----

= CONV.2 | CONV1 OR CONV2 = 1

2.12	0	02	33	00
------	---	----	----	----

= TRANS 1 | BIT IS SET TO 1 IF

	0	02	33	02
--	---	----	----	----

= TRANS 2 | TR1 OR TR2 = 1

GEOS DATA PROCESSING

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NOTE

----- SOURCE -----
FORMT FRAME CHAN BIT
(0-3) (0-31) (0-63) (POW,2)

3	ALL	ALL	34	7-2	HIGHEST AND LOWEST VALUES WITHIN 4 FORMATS (GOOD QUALITY VALUES ONLY)
4	0	07	36	7	SIMPLE EXTRACTION 1 = ELECTRON 0 = PROTON
5	0	07	57	4	SIMPLE EXTRACTION 1 = ELECTRON 0 = PROTON
6	0	07	57	0	SIMPLE EXTRACTION 1 = OFF
7	0	07	56	3	SIMPLE EXTRACTION 1 = ON

GEOS DATA PROCESSING

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NOTE

SOURCE
 FORMT FRAME CHAN BIT
 (0-3) (0-31) (0-63) (POW.2)

8	0	13	56,57	14-7	SIMPLE EXTRACTION FROM 16-BIT WORD
9					PROGRAMME NUMBER MERGED FROM THE HIGH-SPEED DATA STREAM
10	0	05	56,57	10-7	SIMPLE EXTRACTION FROM 16-BIT WORD
11	0	01	57	3-0	SIMPLE EXTRACTION
12	0	01	57	5-4	SIMPLE EXTRACTION
13	0	13	56	7	A (1 BIT) MODULATION
	0	01	56	5	B (1 BIT)
	0	09	56,57	8-7	C (2 BITS) CAL. FREQUENCY (FROM 16-BIT WORD)
	0	09	57	4-3	D (2 BITS) CAL LEVEL
	0	09	57	2	E (1 BIT) CAL ON/OFF
	0	09	56	1	F (1 BIT) CAL. MAGNETIC
	0	01	56	7-6	G (2 BITS) CAL. ELECTRIC

THIS BIT, S304 SIGNAL OR CAL.
IS SET TO 1 IF AND ONLY IF :

(A NOT 01) AND (C NOT 00) AND
(D NOT 00) AND (E = 1) AND
((F = 1) OR (G NOT 00))

GENS DATA PROCESSING

SPECIFICATION OF EXPERIMENTERS' TAPES

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NOTE

----- SOURCE -----
FORMT FRAME CHAN BIT
(0-3) (0-31) (0-63) (POW.2)

14	0	13	56	7	= A MODULATION
	0	01	56	5	= B
	0	05	56	3	= C TRANSMITTER

THIS BIT, S301 ON/OFF, IS SET TO
1 IF AND ONLY IF :

(AB NOT 01) AND (C = 1)

15	0	01	56	2	SIMPLE EXTRACTION
----	---	----	----	---	-------------------

16	0	27	57	7-6	= A
	0	27	57	5-4	= B
	0	27	57	1	= C

0 = SIGNIFICANT DATA

1 = CALIBRATION

IF (A = 10 OR 01)

AND (B = 0 AND C = 0)

THEN DATA IS SIGNIFICANT

17	0	07	52	4	SIMPLE EXTRACTION
					1 = THERMAL 0 = LOW

18	0	11	52	4	= A SIMPLE EXTRACTION
	0	15	52	4	= B

AB = 00 MASS SCAN, NO A. SCAN

AB = 01 ENERGY SCAN, NO A. SCAN

AB = 10 MASS SCAN, LOW RES. AVERAGE

AB = 11 MASS SCAN, HIGH RES. AVERAGE

GEOS DATA PROCESSING

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NOTE

SOURCE
 FORMT FRAME CHAN BIT
 (0-3) (0-31) (0-63) (POW.2)

19	0	00	06	2=1	10 = STEPPING MODE 00 = SWEEPING MODE 01 = FIXED ENERGY MODE
20	0	00	06	0	0 = ELECTRON MODE 1 = PROTON MODE
21	0	00	20	2=1	10 = STEPPING MODE 00 = SWEEPING MODE 01 = FIXED ENERGY MODE
22	0	00	20	0	0 = ELECTRON MODE 1 = PROTON MODE
23	0	00	06	7=5	000 = LOWEST ENERGY 111 = HIGHEST ENERGY
24	0	00	24	2=1	10 = STEPPING MODE 00 = SWEEPING MODE 01 = FIXED ENERGY MODE
25	0	00	24	0	0 = ELECTRON MODE 1 = PROTON MODE
26	0	01	24	2=1	10 = STEPPING MODE 00 = SWEEPING MODE 01 = FIXED ENERGY MODE
27	0	01	24	0	0 = ELECTRON MODE 1 = PROTON MODE

GEOS DATA PROCESSING

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NOTE

----- SOURCE -----
 FORMT FRAME CHAN BIT
 (0-3) (0-31) (0-63) (POW.2)

28 0 00 24 7-5

000 = LOWEST ENERGY
 111 = HIGHEST ENERGY

29 0 19 57 1-0

00 = NORMAL SAMPLING :
 DET 1 = G042
 DET 10 = G037
 01 = FAST SAMPLING :
 DET 1 = G042, G022, G023, G024
 DET 7 = G021, G025, G026, G027
 NORMAL SAMPLING :
 DET 9 = G032, DET 10 = G037
 10 = FAST SAMPLING :
 DET 9 = G022, G023, G024, G032
 DET 10 = G025, G026, G027, G037
 NORMAL SAMPLING :
 DET 1 = G042, DET 7 = G021
 11 = UNDESIRABLE MODE

30 0 00 38 7-4

IF = 1000, MODE = 0, BITS = 00
 IF = 0100, MODE = 1, BITS = 01
 IF = 0010, MODE = 2, BITS = 10
 IF = 0001, MODE = IFC, BITS = 11

ALL 31 56 7-4

I = A

31 ALL 03 56 6-5

32 ALL 31 57 4-3

33 ALL 31 57 1-0

FOR THE S329 FLAGS, THE
 INDICATED BITS ARE KEPT
 AS THE PREVIOUS FORMAT
 UNLESS A = 1101. THIS
 INDICATES THAT A COMMAND
 HAS CHANGED THE STATUS, AND
 THE 3 VALUES ARE RESET

GEOS DATA PROCESSING

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NOTE

----- SOURCE -----
 FORMT FRAME CHAN BIT
 (0=3) (0=31) (0=63) (POW.2)

34	J	00	38	3=0	=M1(J)
	J	08	08	3=0	=M1(J)
	J	16	38	3=0	=M1(J)
	J	24	08	3=0	=M1(J)
	M	16	08	7=0	=S3(M)
	N	00	08	7=0	=S4(N)

SEARCH FORMATS 0-3 FOR AN
 M1 VALUE OF '6' AND TAKE S3
 FROM THAT FORMAT
 SEARCH FORMATS 0-3 FOR AN
 M1 VALUE OF '8' AND TAKE S4
 FROM THAT FORMAT

RA= S3 BITS 5=4
 RB= S3 BITS 1=0
 RC= S4 BITS 5=4
 RD= S4 BITS 1=0

IF EITHER M1=6 OR M1=8 IS MISSING IN 4 FORMATS,	OFF 62 = '00'
IF RA=RB=RC=RD= 0 THEN 'PROTON ONLY MODE'	OFF 62 = '10'
IF ALL OF RA,RB,RC,RD ARE NON=ZERO, THEN 'ELECTRONS'	OFF 62 = '01'
IF SOME OF RA,RB,RC,RD ARE NON=ZERO, THEN 'MIXED'	OFF 62 = '11'

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S321 TAPE

PAGE 1

	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	0	4	FORMAT.COUNT.	0	00	57
S321	4	4	QUALITY	0	01	57
S321	8	16	PL. STAT. INDX	0	02	57
S321	24	18	FAST AUX	0	03	57
S321	42	2	SPARE	0	04	57
S321	44	2	SPARE	0	05	57
S321	46	2	SP. MJD	0	06	57
S321	48	4	SP. MILLI	0	07	57
S321	52	2	SPARE	0	08	57
S321	54	1	J03D	0	09	57
S321	55	1	J03D	0	10	57
S321	56	1	J03D	0	11	57
S321	57	1	J03D	0	12	57
S321	58	1	J03D	0	13	57
S321	59	1	J03D	0	14	57
S321	60	1	J03D	0	15	57
S321	61	1	J03D	0	16	57
S321	62	1	J01A	0	17	59
S321	63	1	J02A	0	18	58
S321	64	1	J03A	0	19	58
S321	65	1	J04A	0	20	59
S321	66	1	SPARE	0	21	59
S321	67	1	J03D	0	22	57
S321	68	1	J03D	0	23	57
S321	69	1	J03D	0	24	57
S321	70	1	J03D	0	25	57
S321	71	1	J03D	0	26	57
S321	72	1	J03D	0	27	57
S321	73	1	J03D	0	28	57
S321	74	1	J03D	0	29	57

payback status
(pgs 15-24)

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S321 TAPE

PAGE 2

	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	75	1	J01A	0	28	59
S321	76	1	J02A	0	29	58
S321	77	1	J03A	0	30	58
S321	78	1	J04A	0	30	59
S321	79	1	SPARE	0	30	59
S321	80	1	J03D	1	00	57
S321	81	1	J03D	1	02	57
S321	82	1	J03D	1	04	57
S321	83	1	J03D	1	06	57
S321	84	1	J03D	1	08	57
S321	85	1	J03D	1	10	57
S321	86	1	J03D	1	12	57
S321	87	1	J03D	1	14	57
S321	88	1	J01A	1	12	59
S321	89	1	J02A	1	13	58
S321	90	1	J03A	1	14	58
S321	91	1	J04A	1	14	59
S321	92	1	SPARE	1	14	59
S321	93	1	J03D	1	16	57
S321	94	1	J03D	1	18	57
S321	95	1	J03D	1	20	57
S321	96	1	J03D	1	22	57
S321	97	1	J03D	1	24	57
S321	98	1	J03D	1	26	57
S321	99	1	J03D	1	28	57
S321	100	1	J03D	1	30	57
S321	101	1	J01A	1	28	59
S321	102	1	J02A	1	29	58
S321	103	1	J03A	1	30	58
S321	104	1	J04A	1	30	59
S321	105	1	SPARE	1	30	59

*	*	*
*	*	*
*	*	*

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S321 TAPE

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	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	106	1	J03D	2	00	57
S321	107	1	J03D	2	02	57
S321	108	1	J03D	2	04	57
S321	109	1	J03D	2	06	57
S321	110	1	J03D	2	08	57
S321	111	1	J03D	2	10	57
S321	112	1	J03D	2	12	57
S321	113	1	J03D	2	14	57
S321	114	1	J01A	2	12	59
S321	115	1	J02A	2	13	58
S321	116	1	J03A	2	14	58
S321	117	1	J04A	2	14	59
S321	118	1	SPARE	2	14	59
S321	119	1	J03D	2	16	57
S321	120	1	J03D	2	18	57
S321	121	1	J03D	2	20	57
S321	122	1	J03D	2	22	57
S321	123	1	J03D	2	24	57
S321	124	1	J03D	2	26	57
S321	125	1	J03D	2	28	57
S321	126	1	J03D	2	30	57
S321	127	1	J01A	2	28	59
S321	128	1	J02A	2	29	58
S321	129	1	J03A	2	30	58
S321	130	1	J04A	2	30	59
S321	131	1	SPARE	2	30	59
S321	132	1	J03D	3	00	57
S321	133	1	J03D	3	02	57
S321	134	1	J03D	3	04	57
S321	135	1	J03D	3	06	57
S321	136	1	J03D	3	08	57
S321	137	1	J03D	3	10	57
S321	138	1	J03D	3	12	57
S321	139	1	J03D	3	14	57

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CONTENTS OF 4-FORMAT UNIT

S321 TAPE

PAGE 4

	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	140	1	J01A	3	12	59
S321	141	1	J02A	3	13	58
S321	142	1	J03A	3	14	58
S321	143	1	J04A	3	14	59
S321	144	1	SPARE			
S321	145	1	J03D	3	16	57
S321	146	1	J03D	3	18	57
S321	147	1	J03D	3	20	57
S321	148	1	J03D	3	22	57
S321	149	1	J03D	3	24	57
S321	150	1	J03D	3	26	57
S321	151	1	J03D	3	28	57
S321	152	1	J03D	3	30	57
S321	153	1	J01A	3	28	59
S321	154	1	J02A	3	29	58
S321	155	1	J03A	3	30	58
S321	156	1	J04A	3	30	59
S321	157	1	L02A	0	11	49
S321	158	4	SPARE			
"	"	"	"			
"	"	"	"			
"	"	"	"			

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S321 TAPE

PAGE 5

	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	162	2	J02D	0	00	08
S321	164	4	J01D, J02D	0	00	38
S321	168	2	J02D	0	01	08
S321	170	4	J01D, J02D	0	01	38
S321	174	2	J02D	0	02	08
S321	176	4	J01D, J02D	0	02	38
S321	180	2	J02D	0	03	08
S321	182	4	J01D, J02D	0	03	38
S321	186	2	J02D	0	04	08
S321	188	4	J01D, J02D	0	04	38
S321	192	2	J02D	0	05	08
S321	194	4	J01D, J02D	0	05	38
S321	198	2	J02D	0	06	08
S321	200	4	J01D, J02D	0	06	38
S321	204	2	J02D	0	07	08
S321	206	4	J01D, J02D	0	07	38
S321	210	2	J02D	0	08	08
S321	212	4	J01D, J02D	0	08	38
S321	216	2	J02D	0	09	08
S321	218	4	J01D, J02D	0	09	38
S321	222	2	J02D	0	10	08
S321	224	4	J01D, J02D	0	10	38
S321	228	2	J02D	0	11	08
S321	230	4	J01D, J02D	0	11	38
S321	234	2	J02D	0	12	08
S321	236	4	J01D, J02D	0	12	38
S321	240	2	J02D	0	13	08
S321	242	4	J01D, J02D	0	13	38
S321	246	2	J02D	0	14	08
S321	248	4	J01D, J02D	0	14	38
S321	252	2	J02D	0	15	08
S321	254	4	J01D, J02D	0	15	38
S321	258	2	J02D	0	16	08
S321	260	4	J01D, J02D	0	16	38
S321	264	2	J02D	0	17	08
S321	266	4	J01D, J02D	0	17	38
S321	270	2	J02D	0	18	08
S321	272	4	J01D, J02D	0	18	38
S321	276	2	J02D	0	19	08
S321	278	4	J01D, J02D	0	19	38
S321	282	2	J02D	0	20	08

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CONTENTS OF 4-FORMAT UNIT

S321 TAPE

PAGE 6

	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	284	4	J010,J020	0	20	38
S321	288	2	J020	0	21	08
S321	290	4	J010,J020	0	21	38
S321	294	2	J020	0	22	08
S321	296	4	J010,J020	0	22	38
S321	300	2	J020	0	23	08
S321	302	4	J010,J020	0	23	38
S321	306	2	J020	0	24	08
S321	308	4	J010,J020	0	24	38
S321	312	2	J020	0	25	08
S321	314	4	J010,J020	0	25	38
S321	318	2	J020	0	26	08
S321	320	4	J010,J020	0	26	38
S321	324	2	J020	0	27	08
S321	326	4	J010,J020	0	27	38
S321	330	2	J020	0	28	08
S321	332	4	J010,J020	0	28	38
S321	336	2	J020	0	29	08
S321	338	4	J010,J020	0	29	38
S321	342	2	J020	0	30	08
S321	344	4	J010,J020	0	30	38
S321	348	2	J020	0	31	08
S321	350	4	J010,J020	0	31	38

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SPECIFICATION OF EXPERIMENTERS' TAPES

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CONTENTS OF 4-FORMAT UNIT

S321 TAPE

PAGE 7

	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	354	2	J02D	1	00	08
S321	356	4	J01D, J02D	1	00	38
S321	360	2	J02D	1	01	08
S321	362	4	J01D, J02D	1	01	38
S321	366	2	J02D	1	02	08
S321	368	4	J01D, J02D	1	02	38
S321	372	2	J02D	1	03	08
S321	374	4	J01D, J02D	1	03	38
S321	378	2	J02D	1	04	08
S321	380	4	J01D, J02D	1	04	38
S321	384	2	J02D	1	05	08
S321	386	4	J01D, J02D	1	05	38
S321	390	2	J02D	1	06	08
S321	392	4	J01D, J02D	1	06	38
S321	396	2	J02D	1	07	08
S321	398	4	J01D, J02D	1	07	38
S321	402	2	J02D	1	08	08
S321	404	4	J01D, J02D	1	08	38
S321	408	2	J02D	1	09	08
S321	410	4	J01D, J02D	1	09	38
S321	414	2	J02D	1	10	08
S321	416	4	J01D, J02D	1	10	38
S321	420	2	J02D	1	11	08
S321	422	4	J01D, J02D	1	11	38
S321	426	2	J02D	1	12	08
S321	428	4	J01D, J02D	1	12	38
S321	432	2	J02D	1	13	08
S321	434	4	J01D, J02D	1	13	38
S321	438	2	J02D	1	14	08
S321	440	4	J01D, J02D	1	14	38
S321	444	2	J02D	1	15	08
S321	446	4	J01D, J02D	1	15	38
S321	450	2	J02D	1	16	08
S321	452	4	J01D, J02D	1	16	38
S321	456	2	J02D	1	17	08
S321	458	4	J01D, J02D	1	17	38
S321	462	2	J02D	1	18	08
S321	464	4	J01D, J02D	1	18	38
S321	468	2	J02D	1	19	08
S321	470	4	J01D, J02D	1	19	38
S321	474	2	J02D	1	20	08

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CONTENTS OF 4-FORMAT UNIT

S321 TAPE

PAGE 8

	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	476	4	J010,J02D	1	20	38
S321	480	2	J02D	1	21	08
S321	482	4	J010,J02D	1	21	38
S321	486	2	J02D	1	22	08
S321	488	4	J010,J02D	1	22	38
S321	492	2	J02D	1	23	08
S321	494	4	J010,J02D	1	23	38
S321	498	2	J02D	1	24	08
S321	500	4	J010,J02D	1	24	38
S321	504	2	J02D	1	25	08
S321	506	4	J010,J02D	1	25	38
S321	510	2	J02D	1	26	08
S321	512	4	J010,J02D	1	26	38
S321	516	2	J02D	1	27	08
S321	518	4	J010,J02D	1	27	38
S321	522	2	J02D	1	28	08
S321	524	4	J010,J02D	1	28	38
S321	528	2	J02D	1	29	08
S321	530	4	J010,J02D	1	29	38
S321	534	2	J02D	1	30	08
S321	536	4	J010,J02D	1	30	38
S321	540	2	J02D	1	31	08
S321	542	4	J010,J02D	1	31	38

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CONTENTS OF 4-FORMAT UNIT

S321 TAPE

PAGE 9

	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	546	2	J02D	2	00	08
S321	548	4	J01D,J02D	2	00	38
S321	552	2	J02D	2	01	08
S321	554	4	J01D,J02D	2	01	38
S321	558	2	J02D	2	02	08
S321	560	4	J01D,J02D	2	02	38
S321	564	2	J02D	2	03	08
S321	566	4	J01D,J02D	2	03	38
S321	570	2	J02D	2	04	08
S321	572	4	J01D,J02D	2	04	38
S321	576	2	J02D	2	05	08
S321	578	4	J01D,J02D	2	05	38
S321	582	2	J02D	2	06	08
S321	584	4	J01D,J02D	2	06	38
S321	588	2	J02D	2	07	08
S321	590	4	J01D,J02D	2	07	38
S321	594	2	J02D	2	08	08
S321	596	4	J01D,J02D	2	08	38
S321	600	2	J02D	2	09	08
S321	602	4	J01D,J02D	2	09	38
S321	606	2	J02D	2	10	08
S321	608	4	J01D,J02D	2	10	38
S321	612	2	J02D	2	11	08
S321	614	4	J01D,J02D	2	11	38
S321	618	2	J02D	2	12	08
S321	620	4	J01D,J02D	2	12	38
S321	624	2	J02D	2	13	08
S321	626	4	J01D,J02D	2	13	38
S321	630	2	J02D	2	14	08
S321	632	4	J01D,J02D	2	14	38
S321	636	2	J02D	2	15	08
S321	638	4	J01D,J02D	2	15	38
S321	642	2	J02D	2	16	08
S321	644	4	J01D,J02D	2	16	38
S321	648	2	J02D	2	17	08
S321	650	4	J01D,J02D	2	17	38
S321	654	2	J02D	2	18	08
S321	656	4	J01D,J02D	2	18	38
S321	660	2	J02D	2	19	08
S321	662	4	J01D,J02D	2	19	38
S321	666	2	J02D	2	20	08

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CONTENTS OF 4-FORMAT UNIT

S321 TAPE

PAGE 10

	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	668	4	J010,J020	2	20	38
S321	672	2	J020	2	21	08
S321	676	4	J010,J020	2	21	38
S321	678	2	J020	2	22	08
S321	680	4	J010,J020	2	22	38
S321	684	2	J020	2	23	08
S321	686	4	J010,J020	2	23	38
S321	690	2	J020	2	24	08
S321	692	4	J010,J020	2	24	38
S321	696	2	J020	2	25	08
S321	698	4	J010,J020	2	25	38
S321	702	2	J020	2	26	08
S321	704	4	J010,J020	2	26	38
S321	708	2	J020	2	27	08
S321	710	4	J010,J020	2	27	38
S321	714	2	J020	2	28	08
S321	716	4	J010,J020	2	28	38
S321	720	2	J020	2	29	08
S321	722	4	J010,J020	2	29	38
S321	726	2	J020	2	30	08
S321	728	4	J010,J020	2	30	38
S321	732	2	J020	2	31	08
S321	734	4	J010,J020	2	31	38

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CONTENTS OF 4-FORMAT UNIT

S321 TAPE

PAGE 11

	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	738	2	J02D	3	00	08
S321	740	4	J01D,J02D	3	00	38
S321	744	2	J02D	3	01	08
S321	746	4	J01D,J02D	3	01	38
S321	750	2	J02D	3	02	08
S321	752	4	J01D,J02D	3	02	38
S321	756	2	J02D	3	03	08
S321	758	4	J01D,J02D	3	03	38
S321	762	2	J02D	3	04	08
S321	764	4	J01D,J02D	3	04	38
S321	768	2	J02D	3	05	08
S321	770	4	J01D,J02D	3	05	38
S321	774	2	J02D	3	06	08
S321	776	4	J01D,J02D	3	06	38
S321	780	2	J02D	3	07	08
S321	782	4	J01D,J02D	3	07	38
S321	786	2	J02D	3	08	08
S321	788	4	J01D,J02D	3	08	38
S321	792	2	J02D	3	09	08
S321	794	4	J01D,J02D	3	09	38
S321	798	2	J02D	3	10	08
S321	800	4	J01D,J02D	3	10	38
S321	804	2	J02D	3	11	08
S321	806	4	J01D,J02D	3	11	38
S321	810	2	J02D	3	12	08
S321	812	4	J01D,J02D	3	12	38
S321	816	2	J02D	3	13	08
S321	818	4	J01D,J02D	3	13	38
S321	822	2	J02D	3	14	08
S321	824	4	J01D,J02D	3	14	38
S321	828	2	J02D	3	15	08
S321	830	4	J01D,J02D	3	15	38
S321	834	2	J02D	3	16	08
S321	836	4	J01D,J02D	3	16	38
S321	840	2	J02D	3	17	08
S321	842	4	J01D,J02D	3	17	38
S321	846	2	J02D	3	18	08
S321	848	4	J01D,J02D	3	18	38
S321	852	2	J02D	3	19	08
S321	854	4	J01D,J02D	3	19	38
S321	858	2	J02D	3	20	08

GEOS DATA PROCESSING

SPECIFICATION OF EXPERIMENTERS' TAPES

ESCC JA/JA/11

LOW-SPEED DATA TAPES

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CONTENTS OF 4-FORMAT UNIT

S321 TAPE

PAGE 12

	OFFSET	LENGTH (BYTES)	CODE	FORMAT (0-3)	FRAME (0-31)	CHANNEL (0-63)
S321	860	4	J010,J020	3	20	33
S321	864	2	J020	3	21	08
S321	866	4	J010,J020	3	21	38
S321	870	2	J020	3	22	08
S321	872	4	J010,J020	3	22	38
S321	876	2	J020	3	23	08
S321	878	4	J010,J020	3	23	38
S321	882	2	J020	3	24	08
S321	884	4	J010,J020	3	24	38
S321	888	2	J020	3	25	08
S321	890	4	J010,J020	3	25	38
S321	894	2	J020	3	26	08
S321	896	4	J010,J020	3	26	38
S321	900	2	J020	3	27	08
S321	902	4	J010,J020	3	27	38
S321	906	2	J020	3	28	08
S321	908	4	J010,J020	3	28	38
S321	912	2	J020	3	29	08
S321	914	4	J010,J020	3	29	38
S321	918	2	J020	3	30	08
S321	920	4	J010,J020	3	30	38
S321	924	2	J020	3	31	08
S321	926	4	J010,J020	3	31	38
S321	930	6	SPARE	3	31	38

936

BYTES TOTAL

DUMP OF TAPE X-407

INPUT TAPE X-407 ON MS1
DATA INPUT H9 NF 24 FL 1 1 1 SR 24 1 1 SR 24 LAST 1

ESA-GEOS-1

D-32276

12/01/77-12/12/77

FILE	1	RECORD	1	LENGTH	7200BYTES						
(0)	01426200	000027D4	030078D0	0014FF0A	00000000	0000001E	08F32AF5	0BC1FBE4	F577DA9D	111207B6	
(40)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426240	000027D4	0301D0D0	0014FF0A	00000000	
(80)	0000001E	0A31021A	116EFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(120)	01426280	000027D4	030328D0	0014FF0A	00000000	00000000	0000001E	0776DB65	0D4AFBE4	F577DA9D	111207B6
(160)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014262C0	000027D4	030480D0	0014FF0A	00000000	
(200)	0000001E	0564EC3B	0784FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(240)	01426300	000027D4	030508D0	0014FF0A	00000000	00000000	0000001E	0A52BC02	10D3FBE4	F577DA9D	111207B6
(280)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426340	000027D4	030730D0	0014FF0A	00000000	
(320)	0000001E	08D42310	0F9AFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(360)	01426380	000027D4	030888D0	0014FF0A	00000000	00000000	0000001E	F586D2D4	036BFBE4	F577DA9D	111207B6
(400)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014263C0	000027D4	0309E0D0	0014FF0A	00000000	
(440)	0000001E	0A2703CA	0F5BFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(480)	01426400	000027D4	030B38D0	0014FF0A	00000000	00000000	0000001E	099FDD34	10F3FBE4	F577DA9D	111207B6
(520)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426440	000027D4	030C90D0	0014FF0A	00000000	
(560)	0000001E	02CD3C9D	082BFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(600)	01426480	000027D4	030DE8D0	0014FF0A	00000000	00000000	0000001E	0973BEA8	0CE6FBE4	F577DA9D	111207B6
(640)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014264C0	000027D4	030F40D0	0014FF0A	00000000	
(680)	0000001E	0A1623A1	1173FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(720)	01426500	000027D4	031098D0	0014FF0A	00000000	00000000	0000001E	06BAFC0A	0C34FBE4	F577DA9D	111207B6
(760)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426540	000027D4	0311F0D0	0014FF0A	00000000	
(800)	0000001E	073F0A09	0933FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(840)	01426580	000027D4	031348D0	0014FF0A	00000000	00000000	0000001E	0A4EDD74	1122FBE4	F577DA9D	111207B6
(880)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014265C0	000027D4	0314ACD0	0014FF0A	00000000	
(920)	0000001E	086F444A	0EE7FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(960)	01426600	000027D4	0315F8D0	0014FF0A	00000000	00000000	0000001E	FC3DD886	0422FBE4	F577DA9D	111207B6
(1000)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426640	000027D4	031750D0	0014FF0A	00000000	
(1040)	0000001E	0A412441	0FFAFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(1080)	01426680	000027D4	0318A8D0	0014FF0A	00000000	00000000	0000001E	0963FEAA	1093FBE4	F577DA9D	111207B6
(1120)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014266C0	000027D4	031A00D0	0014FF0A	00000000	
(1160)	0000001E	FFC7CCA4	065DFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(1200)	01426700	000027D4	031B58D0	0014FF0A	00000000	00000000	0000001E	09CADF53	0DE5FBE4	F577DA9D	111207B6
(1240)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426740	000027D4	031CB0D0	0014FF0A	00000000	
(1280)	0000001E	09F44529	115DFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(1320)	01426780	000027D4	031E08D0	0014FF0A	00000000	00000000	0000001E	05C11C47	0AF3FBE4	F577DA9D	111207B6
(1360)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014267C0	000027D4	031F60D0	0014FF0A	00000000	
(1400)	0000001E	0859292D	0AACFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(1440)	01426800	000027D4	0320B8D0	0014FF0A	00000000	00000000	0000001E	0A41FEF2	1156FBE4	F577DA9D	111207B6
(1480)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426840	000027D4	032210D0	0014FF0A	00000000	
(1520)	0000001E	07F4D8C0	0E14FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(1560)	01426880	000027D4	032368D0	0014FF0A	00000000	00000000	0000001E	02AAEE1C	05F9FBE4	F577DA9D	111207B6
(1600)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014268C0	000027D4	0324C0D0	0014FF0A	00000000	
(1640)	0000001E	0A4F4592	107DFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(1680)	01426900	000027D4	032618D0	0014FF0A	00000000	00000000	0000001E	091B200F	1017FBE4	F577DA9D	111207B6
(1720)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426940	000027D4	032770D0	0014FF0A	00000000	
(1760)	0000001E	FA6DE3E6	047AFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(1800)	01426980	000027D4	0328C8D0	0014FF0A	00000000	00000000	0000001E	0A05003D	0EBFFBE4	F577DA9D	111207B6
(1840)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014269C0	000027D4	032A20D0	0014FF0A	00000000	
(1880)	0000001E	09C9DA0F	112EFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(1920)	01426A00	000027D4	032B78D0	0014FF0A	00000000	00000000	0000001E	04683BE0	0984FBE4	F577DA9D	111207B6
(1960)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426A40	000027D4	032CD0D0	0014FF0A	00000000	
(2000)	0000001E	090CB076	0BF6FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(2040)	01426A80	000027D4	032E28D0	0014FF0A	00000000	00000000	0000001E	0A2D2075	1170FBE4	F577DA9D	111207B6
(2080)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426AC0	000027D4	032F80D0	0014FF0A	00000000	
(2120)	0000001E	075AF9A1	0D1DFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	
(2160)	01426B00	000027D4	0330D8D0	0014FF0A	00000000	00000000	0000001E	05C909D2	07D1FBE4	F577DA9D	111207B6
(2200)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426B40	000027D4	033230D0	0014FF0A	00000000	
(2240)	0000001E	0A52DA59	10E2FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	

(2360)	0000001E	F5D6EB7F	C35FFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(2400)	01426C00	000027D4	C33638D0	0014FF0A	00000000	0000001E	0A2C2156	0F78FBE4	F577DA9D	111207B6
(2440)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426C40	000027D4	033790D0	0014FF0A	00000000
(2480)	0000001E	0995FB8E	10E5FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(2520)	01426C80	000027D4	C338E8D0	0014FF0A	00000000	0000001E	0264CDB7	07E0FBE4	F577DA9D	111207B6
(2560)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426CC0	000027D4	033A40D0	0014FF0A	00000000
(2600)	0000001E	0984DCD9	0D14FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(2640)	01426D00	000027D4	C33B98D0	0014FF0A	00000000	0000001E	0A1141FD	1171FBE4	F577DA9D	111207B6
(2680)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426D40	000027D4	033CF0D0	0014FF0A	00000000
(2720)	0000001E	06951A36	0C00FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(2760)	01426D80	000027D4	C33E48D0	0014FF0A	00000000	0000001E	077927EB	0976FBE4	F577DA9D	111207B6
(2800)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426DC0	000027D4	033FA0D0	0014FF0A	00000000
(2840)	0000001E	0A4CFBCE	112CFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(2880)	01426E00	000027D4	C340F8D0	0014FF0A	00000000	0000001E	085CD5F6	0EC6FBE4	F577DA9D	111207B6
(2920)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426E40	000027D4	034250D0	0014FF0A	00000000
(2960)	0000001E	FDAAF40D	046AFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(3000)	01426E80	000027D4	C343A8D0	0014FF0A	00000000	0000001E	0A444292	1012FBE4	F577DA9D	111207B6
(3040)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426EC0	000027D4	034500D0	0014FF0A	00000000
(3080)	0000001E	09571D00	1080FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(3120)	01426F00	000027D4	C34658D0	0014FF0A	00000000	0000001E	FF13E9CE	060AFBE4	F577DA9D	111207B6
(3160)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426F40	000027D4	0347B0D0	0014FF0A	00000000
(3200)	0000001E	09D6FD91	0E0CFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(3240)	01426F80	000027D4	C34908D0	0014FF0A	00000000	0000001E	09EDD6E6	1157FBE4	F577DA9D	111207B6
(3280)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01426FC0	000027D4	034A60D0	0014FF0A	00000000
(3320)	0000001E	058F3A5D	CAB8FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(3360)	01427000	000027D4	C34BB8D0	0014FF0A	00000000	0000001E	087DBA99	0AE7FBE4	F577DA9D	111207B6
(3400)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01427040	000027D4	034D10D0	0014FF0A	00000000
(3440)	0000001E	0A3E1D4C	115CFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(3480)	01427080	000027D4	C34E68D0	0014FF0A	00000000	0000001E	07DCF704	0DEDfBE4	F577DA9D	111207B6
(3520)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014270C0	000027D4	034FC0D0	0014FF0A	00000000
(3560)	0000001E	035B0B36	064CFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(3600)	01427100	000027D4	C35118D0	0014FF0A	00000000	0000001E	0A50D748	1090FBE4	F577DA9D	111207B6
(3640)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01427140	000027D4	035270D0	0014FF0A	00000000
(3680)	0000001E	090D3E64	0FFFFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(3720)	01427180	000027D4	C353C8D0	0014FF0A	00000000	0000001E	F93DFF55	042FFBE4	F577DA9D	111207B6
(3760)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014271C0	000027D4	035520D0	0014FF0A	00000000
(3800)	0000001E	0A0D1E84	0EE0FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(3840)	01427200	000027D4	C35678D0	0014FF0A	00000000	0000001E	09C1F86A	1124FBE4	F577DA9D	111207B6
(3880)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01427240	000027D4	0357D0D0	0014FF0A	00000000
(3920)	0000001E	041FCD31	0940FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(3960)	01427280	000027D4	C35928D0	0014FF0A	00000000	0000001E	0924DA99	0C29FBE4	F577DA9D	111207B6
(4000)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014272C0	000027D4	035A80D0	0014FF0A	00000000
(4040)	0000001E	0A283ED1	1172FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(4080)	01427300	000027D4	C35BD8D0	0014FF0A	00000000	0000001E	073C17D9	0CF0FBE4	F577DA9D	111207B6
(4120)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01427340	000027D4	035D30D0	0014FF0A	00000000
(4160)	0000001E	0624277A	081CFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(4200)	01427380	000027D4	C35E88D0	0014FF0A	00000000	0000001E	0A51F8B1	10F0FBE4	F577DA9D	111207B6
(4240)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014273C0	000027D4	035FE0D0	0014FF0A	00000000
(4280)	0000001E	0884D312	0F61FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(4320)	01427400	000027D4	C36138D0	0014FF0A	00000000	0000001E	F691043D	0367FBE4	F577DA9D	111207B6
(4360)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01427440	000027D4	036290D0	0014FF0A	00000000
(4400)	0000001E	0A313FA3	0F94FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(4440)	01427480	000027D4	C363E8D0	0014FF0A	00000000	0000001E	098C19E6	10D6FBE4	F577DA9D	111207B6
(4480)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014274C0	000027D4	036540D0	0014FF0A	00000000
(4520)	0000001E	01F2EB5F	0794FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(4560)	01427500	000027D4	C36698D0	0014FF0A	00000000	0000001E	0994FB0D	0D41FBE4	F577DA9D	111207B6
(4600)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01427540	000027D4	0367F0D0	0014FF0A	00000000
(4640)	0000001E	0A0BD3BA	116EFBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(4680)	01427580	000027D4	C36948D0	0014FF0A	00000000	0000001E	066E385F	0BCCFBE4	F577DA9D	111207B6
(4720)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	014275C0	000027D4	036AA0D0	0014FF0A	00000000
(4760)	0000001E	07AE45D5	09B8FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00
(4800)	01427600	000027D4	C36BF8D0	0014FF0A	00000000	0000001E	0A4A1A27	1136FBE4	F577DA9D	111207B6
(4840)	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00	01427640	000027D4	036D50D0	0014FF0A	00000000
(4880)	0000001E	0848F441	0EA3FBE4	F577DA9D	111207B6	2247109C	19CBE7D3	2CFD0000	FF99FEA5	ED17FF00

(3080)	20313133	20313138	20203733	20202030	20313432	20203639	20313036	20313037	20313130	20313131
(3120)	20203630	20203636	20313133	20313031	20313034	20313034	20203534	20203439	20313035	20313036
(3160)	20203933	20313035	20203537	20203537	20313134	20313139	20203733	20202030	20203538	20203530
(3200)	20313036	20313037	20313039	20313133	20203538	20203537	20313133	20313031	20313033	20313037
(3240)	20203535	20203533	20313036	20313036	20203936	20313038	20203535	20203834	20313133	20313136
(3280)	20313433	20202030	20203733	20203731	20313036	20313038	20313130	20313130	20203632	20203630
(3320)	20313133	20313032	20313035	20313034	20203536	20203533	20313034	20313038	20203938	20313038
(3360)	20203538	20203533	20313134	20313137	20313433	20202030	20203635	20203535	20313035	20313037
(3400)	20313130	20313132	20203537	20203536	20313133	20313032	20313035	20313033	20203537	20203534
(3440)	20313034	20313036	20313030	20313130	20203532	20203833	20313135	20313137	20202020	20202020
(3480)	20202020	20202020	20202020	20202020	20202020	20202020	20202020	20202020	20202020	20202020

FILE	INPUT	DATA RECORDS	MAX.	READ ERROR SUMMARY				INPUT RETRIES	
	RECS.	INPUT	SIZE	PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
4	6097	6098	3520	0	2	0	0	465	544

EOJ

DUMP STOPPED AFTER FILE 4

OF PERMANENT READ ERRORS 0

START TIME 11/15/78 10:00:04

STOP TIME 11/15/78 10:09:11

ESA-GEOS 1

REDUCED ENERGETIC PARTICLES DATA

77-029A-01C SPHE-00535

THIS DATA SET HAS BEEN RESTORED. ORIGINALLY IT CONTAINED TWO 9-TRACK, 1600 BPI TAPES WRITTEN IN ASCII. THERE IS ONE RESTORED TAPE. THE DR TAPE IS A 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI. THE ORIGINAL TAPES WERE CREATED ON AN IBM 360 COMPUTER AND WERE RESTORED ON THE MRS SYSTEM. THE DR AND DS NUMBER ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR005271	DS005271	D033378	1-4	07/28/77 - 07/29/77
		D032695	5-8	12/01/77 - 12/12/77

REQ. AGENT
VJP

RAND NO.
RD1114
RD1809

ACQ. AGENT
MJT

ESA-GEOS-1

REDUCED ENERGETIC PARTICLES

77-029A-01C

This data set catalog consists of 2 data tapes. The tapes are 9 track, ASCII, 1600 BPI and contains 4 files of data each. The tapes were created on an IBM 360 computer.

Time spans are as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-32695	C-20254	12/01/77 - 12/12/77
D-33378	C-20361	7/28/77 - 7/29/77

Dr. James I. Vette
World Data Center A
Goddard Space Flight Center, Code 601

GREENBELT, Maryland 20771
USA

BWK/mg

431

27.10.1978

6. NOV. 1978

Ref.: Data for Energetic Particle Instrument on GEOS-1
for the planned CDAW.

Dear James,

it took us a little longer than expected to produce the proper data tapes for the GEOS Energetic Particle Instrument. I hope the processing is now sufficiently easy. A description of the data format and a few sample print-outs are added to aide the programming.

I am looking forward for the workshop.

With best regards

(Dr. B. Miften)

GEOS - S321 Data Tapes

The tapes are written with 9 tracks at 1600 bpi density.

All values are integer numbers coded in ASCII characters.

The 1. tape consists of 3 files and terminates with a double tape mark.

The 2. tape consists of 1 file and terminates with a double tape mark.

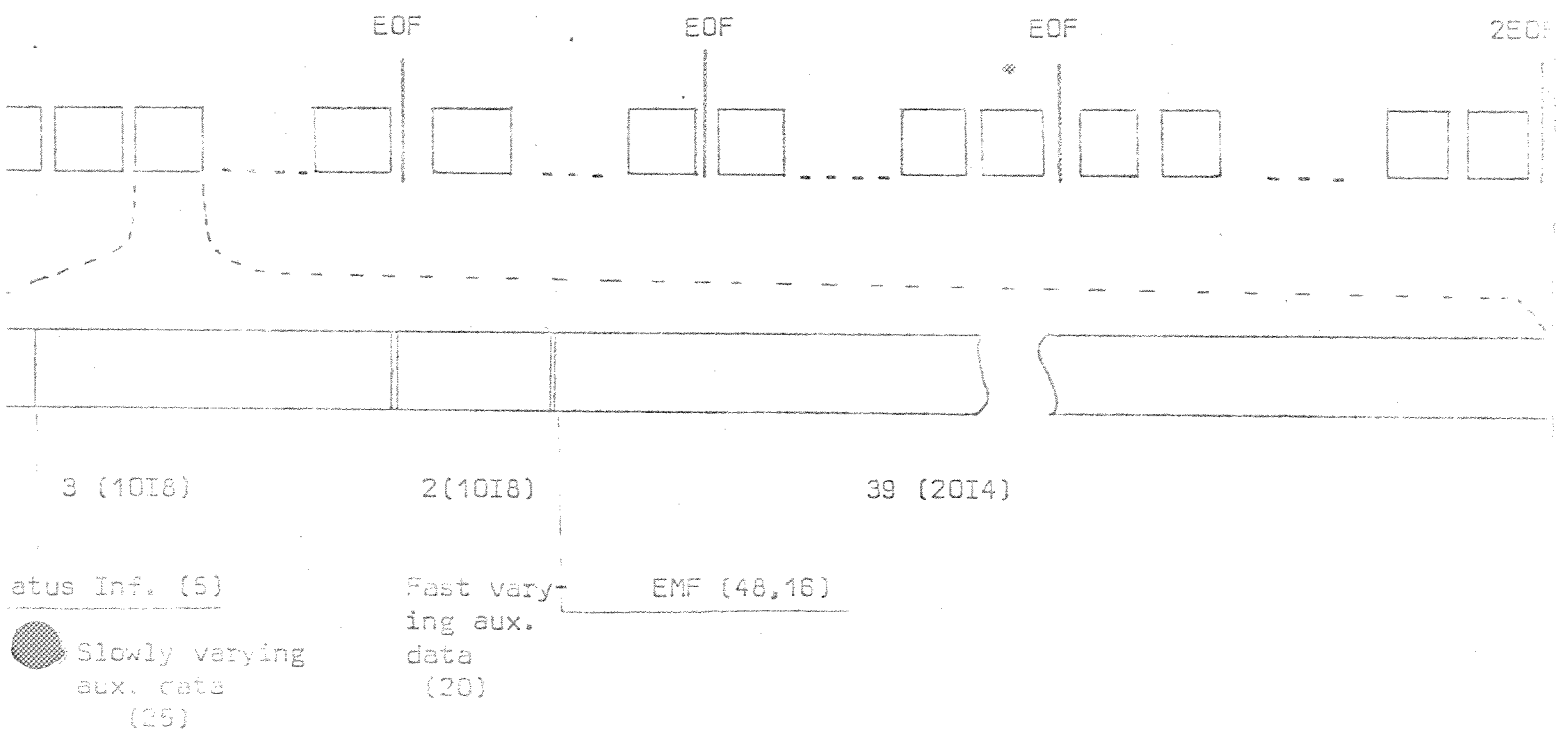
Tape 1

File 1 : Alaska-Contact 1.12.77 (16:50:33-19:30:21 H:MS(UT)) 1743 Records
File 2 : Odenwald-Contact 2.12.77 (01:13:54-09:52:01) 5649 Records
File 3 : Alaska-Contact 2.12.77 (13:40:30-17:05:37) 1785 Records

Tape 2

File 4 : Odenwald-Contact 11./12.12.77 (23:55:29-09:13:03) 6097 Records

One Experiment Main Frame (EMF) with the corresponding slow and fast varying auxiliary data is given in one record.



1...5 Status Information

1. MODE - S321 Mode selected (= 0 for the contacts of this tape)
2. FFC - Four format counter (1...7)
indicate the number of the seven four-format-units (FFU) of the experimenter's tape record from which the EMF is taken.
3. SYNPOS - Position of the S321-SYNWORD SO (1...4)
Indicate in which format within the four-format-unit the EMF begins.
4. EMF-MSG - Indicate if SYNPOS has been changed : IF = 0, SYNPOS has not been changed, IF = 1, SYNPOS has been changed - this may cause a time gap.
5. STAERR - Indicates, whether some checks of the status words have shown errors.

STAERR = 0 : No error

 $0 < \text{STAERR} \leq 10$: Error in redundant status information

 $\text{STAERR} > 100$: The EDF-counter within the EMF is not incrementing.

6...30 Slowly-Varying Auxiliary Data

6. Format-counter (divideble by 64)
7. MJD - modified julian day (0 = 1.1.1950)
8. MILLISECONDS of day of rise of first bit of the given format-counter
9. Mean duration of one format in MICROSECONDS
10. HS-counter value at time of last calculation of plasma frequency
11. Plasma frequency quality flag.
12. Plasma frequency, units of 5 hertz

Satellite Position (corotating geocentris equatorial coordinates)

13. Latitude, units of hundredth degrees, + - 90 deg.
14. Longitude, units of hundredth degrees, + - 180 deg.
15. Distance from center of earth, units of 10 kms.

Satellite Attitude (VDM coordinates)

16. V }
17. D } Direction cosines of the spin axis, normalised to 10000
18. H }
19. V }
20. D } Direction cosines of the magnetic dipole in the VDH System
21. H } normalised to 10000
22. V }
23. D } Direction cosines of the direction of the sun
24. H } from the center of the earth in the VDH system
normalised to 10000
25. Angle between the 2 lines earth-centre to satellite and sun to
earth-centre (i.e. eclipse at zero angle) + 0...180 deg., units of
1100 deg.
26. Right ascension } Spin axis tilt in spacecraft coordination,
27. Declination } Units of hundredth degree
28. Quality bits (power deg.) = 7-6 orbit For each 2-bit
 5-4 attitude Flag 0=good
 3-2 others 1=poor
 1-0 timing 3=extrapol.
- 29., 30. SPARE

31 ... 50 Fast Varying Auxiliary Data

- 31. LS-Format Counter (always dividable by 4)
 - 32. MSD: Days since 1.1. 1950
 - 33. Milliseconds of day (referring to the first rise of bit of the given format)
 - 34. 4 Quality bytes (right-shifted) for each of the 4 formats:
= 0 for good quality
 - 35. Quality from the payload-status-reg.:
0 = good quality for all 4 formats
1 = some data suspect
2 = some data missing (replaced by 255)
3 = all data missing
 - 36. First Euler Angle
 - 37. Second Euler Angle
 - 38. Third Euler Angle
 - 39. Angular velocity in VDH-System: Angle rotated per format in units of 1/100 deg.
 - 40. V
 - 41. D
 - 42. H
 - 43. Polar
 - 44. Azimuth
 - 45. Days (MSD)
 - 46. Milliseconds
 - 47. ... 50 SPARE
- Euler Angles in VDH-System, Units of 1/100 Deg.,
Range ± 180 deg.
- Magnetic field components in the VDH System
Units of one millionth Gauss
- Magnetic field direction angle, space craft fixed 0 ... 180 Deg.
Units of one hundredth degree ± 180 Deg.
- of the last see sun pulse

51 ... 780 Experiment Main Frame (EMF)

EX (I,J), I = 1 ... 48 for DATA WORDS of one EXPERIMENT DATA TRACE (EDT)
J = 1 ... 16 for the EDT's of one FOUR-FORMAT-UNIT (FFU)

The contents of the EMF is given in table A1.2 of "GEOS S321-Parameter".

DUMP OF TAPE X-214

INPUT TAPE X-214 ON MS1
DATA INPUT H9 NF 4 FL 4 1 1

WJD 10196 = 12/01/77

D-32695
12/01/77-12/12/77

FILE	1	RECORD	1	LENGTH	3520BYTES
(0)	20202020	20202030	20202020	20202032	20202020
(40)	32313133	35313034	20202031	30313936	36303537
(80)	20202020	20202030	20202020	20203330	20202020
(120)	20202020	20333139	20202020	31323531	20202020
(160)	20202020	38353734	20202020	31333430	20202020
(200)	20202020	20202030	20202020	20203634	20202020
(240)	32313133	35313434	20202031	30313936	36303633
(280)	20202020	31373937	20202031	37333034	20202020
(320)	20202020	20393232	20202020	20363838	20202031
(360)	36393436	33363937	20202020	20202020	20202020
(400)	20313432	20202030	20313238	20203633	20203635
(440)	20203532	20203431	20203531	20203534	20203233
(480)	20202035	20202038	20203232	20203236	20313432
(520)	20203539	20203535	20202030	20202031	20203438
(560)	20203537	20203533	20203338	20203239	20202030
(600)	20313432	20313237	20203635	20203539	20203539
(640)	20203532	20203531	20202033	20203134	20203532
(680)	20203232	20203234	20313239	20202030	20202031
(720)	20202030	20202030	20203531	20203339	20203439
(760)	20203335	20203331	20202031	20202030	20203236
(800)	20203634	20203634	20203634	20203537	20203534
(840)	20203236	20203137	20203532	20203531	20203337
(880)	20323332	20202030	20202038	20202035	20203632
(920)	20203533	20203337	20203432	20203532	20202030
(960)	20202030	20202034	20203235	20203331	20313331
(1000)	20203539	20203536	20203532	20203533	20203531
(1040)	20203433	20203338	20203330	20203334	20202038
(1080)	20202035	20202036	20203632	20203539	20203632
(1120)	20203435	20203438	20202030	20203438	20203431
(1160)	20203137	20203336	20313132	20202030	20313332
(1200)	20203533	20203531	20203532	20203430	20203432
(1240)	20203337	20203333	20203138	20202036	20203234
(1280)	20203634	20203636	20203632	20203538	20202033
(1320)	20202030	20202030	20203531	20203532	20203335
(1360)	20313333	20202030	20313132	20203937	20203634
(1400)	20203535	20203432	20203437	20203438	20203133
(1440)	20202035	20202032	20203233	20203235	20313333
(1480)	20203537	20203534	20202030	20202030	20203439
(1520)	20203532	20203530	20203430	20203332	20202030
(1560)	20313334	20203536	20203634	20203635	20203632
(1600)	20203531	20203534	20203136	20202039	20203534
(1640)	20203233	20203330	20202030	20202030	20202034
(1680)	20202031	20202031	20203531	20203437	20203530
(1720)	20203339	20203335	20202030	20202032	20203236
(1760)	20203537	20203634	20203538	20203439	20203435
(1800)	20203238	20203135	20203534	20203537	20203339
(1840)	20313335	20202030	20202035	20202034	20203633
(1880)	20203531	20203436	20203533	20203439	20202032
(1920)	20202031	20202031	20203238	20203331	20202030
(1960)	20203536	20203532	20203432	20203430	20203438
(2000)	20203634	20203537	20203333	20203332	20202033
(2040)	20202033	20202032	20203634	20203539	20203537
(2080)	20203532	20203537	20202030	20202030	20203631
(2120)	20203336	20203333	20313337	20202030	20313130
(2160)	20203338	20203131	20203438	20203433	20203532
(2200)	20203331	20203234	20202036	20202030	20203237
(2240)	20203633	20203633	20203534	20203438	20202030

(2360)	20203435	20203339	20203530	20203534	20203234	20203131	20203536	20203537	20203336	20203234
(2400)	20203130	20202037	20203235	20203238	20202030	20202030	20202037	20202036	20203630	20203538
(2440)	20203533	20203434	20202032	20202030	20203435	20203438	20203531	20203539	20202033	20202030
(2480)	20203630	20203533	20203330	20203236	20202030	20202030	20203332	20203335	20313339	20202030
(2520)	20202030	20203431	20203538	20203535	20203533	20203431	20203339	20203331	20203435	20203431
(2560)	20203531	20203536	20202039	20202038	20203537	20203535	20203334	20203231	20202035	20202034
(2600)	20203138	20203336	20313339	20202030	20202032	20202030	20203535	20203538	20203535	20203439
(2640)	20202030	20202030	20203432	20203434	20203530	20203530	20202031	20202030	20203533	20203535
(2680)	20203335	20203135	20202031	20202032	20203137	20203331	20202039	20202030	20313430	20203430
(2720)	20203631	20203537	20203530	20203434	20203334	20203338	20203431	20203337	20203434	20203531
(2760)	20203133	20203133	20203537	20203536	20203335	20203231	20203133	20202033	20203134	20203235
(2800)	20202039	20202030	20202031	20202032	20203633	20203537	20203531	20203436	20202031	20202031
(2840)	20203337	20203432	20203532	20203533	20202031	20202030	20203535	20203533	20203235	20203133
(2880)	20202030	20202030	20203139	20203332	20313431	20202030	20202039	20313232	20203538	20203530
(2920)	20203438	20203339	20203337	20202038	20203434	20203431	20203530	20203533	20202036	20202039
(2960)	20203534	20203532	20203333	20203138	20202038	20202030	20203133	20203332	20313431	20202030
(3000)	20202032	20202030	20203539	20203535	20203533	20203436	20202030	20202030	20203339	20203337
(3040)	20203435	20203536	20202030	20202033	20203539	20203536	20203330	20203235	20202031	20202030
(3080)	20203134	20203332	20203236	20202030	20313432	20203439	20203536	20203538	20203531	20203436
(3120)	20203530	20203431	20203338	20203431	20203438	20203538	20203237	20203138	20203630	20203536
(3160)	20203334	20203236	20203137	20202037	20203233	20203239	20203236	20202030	20203130	20202032
(3200)	20203535	20203631	20203535	20203438	20202032	20202030	20203437	20203433	20203531	20203534
(3240)	20202030	20202030	20203632	20203537	20203236	20203234	20202030	20202030	20203331	20203337
(3280)	20313433	20202030	20203236	20203633	20203631	20203537	20203538	20203534	20203530	20203431
(3320)	20203432	20203439	20203530	20203536	20203333	20203131	20203538	20203538	20203331	20203239
(3360)	20203133	20203135	20203233	20203332	20313433	20202030	20202035	20202037	20203634	20203634
(3400)	20203534	20203432	20202032	20202033	20203438	20203437	20203439	20203536	20202030	20202030
(3440)	20203537	20203538	20203333	20203236	20202030	20202033	20203237	20203332	20202020	20202020
(3480)	20202020	20202020	20202020	20202020	20202020	20202020	20202020	20202020	20202020	20202020

FILE	1	RECORD	1743	LENGTH	3520BYTES						
(0)	20202020	20202030	20202020	20202031	20202020	20202033	20202020	20202030	20202020	20202030	
(40)	32313138	39363936	20202031	30313937	34393239	36373032	20313337	36303130	20202020	20202030	
(80)	20202020	20202030	20202020	20203330	20202020	32303935	20202031	32373038	20202020	33363734	
(120)	20202020	20363634	20202020	20383832	20202020	39393338	20202020	34353039	20202020	31363537	
(160)	20202020	38373639	20202020	32373034	20202020	39313535	20202020	32393736	20202020	37343331	
(200)	20202020	20202030	20202020	20333235	20202020	20202030	20202020	20202020	20202020	20202020	
(240)	32313138	39373034	20202031	30313937	34393330	37373130	20202020	20202030	20202020	20202030	
(280)	20202020	20353836	20202031	37333636	20202031	34333031	20202020	38303931	20202020	31393936	
(320)	20202020	20203436	20202020	31323333	20202031	32363731	20202031	33353733	20202031	30313937	
(360)	34393330	39323837	20202020	20202020	20202020	20202020	20202020	20202020	20202020	20202020	
(400)	20313432	20202030	20313238	20203639	20203638	20203638	20203631	20203539	20203534	20203434	
(440)	20203532	20203537	20203635	20203635	20203135	20203133	20203634	20203531	20203638	20203639	
(480)	20202039	20202034	20203637	20203731	20313432	20202030	20202033	20202032	20203639	20203638	
(520)	20203632	20203535	20202031	20202031	20203536	20203630	20203634	20203632	20202030	20202030	
(560)	20203532	20203230	20203732	20203732	20202030	20202030	20203635	20203731	20313239	20202030	
(600)	20313432	20313235	20203639	20203637	20203636	20203532	20203736	20203539	20203539	20203537	
(640)	20203634	20203637	20203338	20203234	20203633	20203437	20203731	20203731	20202038	20202034	
(680)	20203635	20203639	20313239	20202030	20202032	20202030	20203730	20203636	20203636	20203534	
(720)	20202030	20202030	20203537	20203535	20203633	20203638	20202030	20202032	20203636	20203630	
(760)	20203637	20203639	20202031	20202030	20203637	20203733	20323332	20202030	20313330	20203832	
(800)	20203639	20203637	20203632	20203539	20203639	20203535	20203538	20203533	20203539	20203636	
(840)	20203235	20203135	20203637	20203638	20203635	20203732	20203133	20203131	20203635	20203733	
(880)	20323332	20202030	20202035	20202034	20203730	20203639	20203635	20203536	20202032	20202031	
(920)	20203533	20203534	20203631	20203633	20202030	20202030	20203638	20203638	20203637	20203733	
(960)	20202030	20202030	20203635	20203732	20313331	20202030	20323332	20203738	20203730	20203636	
(1000)	20203630	20203635	20203636	20203534	20203532	20203530	20203535	20203633	20203237	20203132	
(1040)	20203637	20203637	20203638	20203731	20202038	20202032	20203635	20203730	20313331	20202030	
(1080)	20202038	20202034	20203731	20203730	20203636	20203534	20202032	20202030	20203538	20203439	
(1120)	20203534	20203633	20202030	20202030	20203635	20203636	20203637	20203733	20202030	20202031	
(1160)	20203633	20203732	20313132	20202030	20313332	20203733	20203639	20203639	20203634	20203634	
(1200)	20203633	20203537	20203533	20203436	20203537	20203631	20203139	20203131	20203635	20203635	
(1240)	20203732	20203731	20203135	20202035	20203634	20203734	20313132	20202030	20202031	20202032	
(1280)	20203737	20203730	20203634	20203632	20202032	20202031	20203536	20203439	20203531	20203539	

(3080) 20203633 20203635 20323136 20202030 20313432 20203335 20203639 20203638 20203638 20203635
(3120) 20203335 20203430 20203537 20203534 20203533 20203538 20203236 20203231 20203539 20203534
(3160) 20203730 20203737 20203232 20203135 20203632 20203537 20323136 20202030 20203138 20202038
(3200) 20203730 20203730 20203637 20203538 20202038 20202035 20203536 20203530 20203536 20203536
(3240) 20202035 20202035 20203537 20203531 20203732 20203735 20202033 20202034 20203634 20203539
(3280) 20313433 20202030 20323136 20203430 20203730 20203638 20203637 20203632 20203238 20203430
(3320) 20203536 20203531 20203534 20203538 20203234 20203234 20203538 20203530 20203736 20203736
(3360) 20203137 20203133 20203634 20203631 20313433 20202030 20203132 20202038 20203732 20203639
(3400) 20203638 20203635 20203130 20202035 20203536 20203533 20203537 20203538 20202035 20202035
(3440) 20203535 20203534 20203733 20203737 20202033 20202032 20203635 20203634 20202020 20202020
(3480) 20202020 20202020 20202020 20202020 20202020 20202020 20202020 20202020 20202020 20202020

FILE	DATA RECORDS		MAX. SIZE	READ ERROR SUMMARY				INPUT RETRIES	
	INPUT RECS.	INPUT		PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
4	1965	1966	3520	0	5	0	0	5	5

EOJ DUMP STOPPED AFTER FILE 4 # OF PERMANENT READ ERRORS 0

START TIME 03/08/79 14:00:21 STOP TIME 03/08/79 14:05:36

ESA-GEOS 1

THERMAL PLASMA FLOW DATA

77-029A-02B SPMS-00360

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on an IBM 360 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005850	DS005850	D032936	1	12/02/77 - 12/12/77

REQ. AGENT
VJP

RAND NO.
RD1451

ACQ. AGENT
MJT

ESA-GEOS-1

THERMAL PLASMA FLARE

77-029A-0²B

This data set catalog consists of 1 data tape. The tape is 9 track,
1600 BPI, Binary with 1 file of data. The tape was created on an IBM
360 computer.

Time span is as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-32936	C-20494	12/02/77 - 12/12/77

INPUT TAPE X-07 ON MS1
DATA INPUT R9 FL 1 3 3

10-37936
ESA-6E05-1
12102h7-12112h7

FILE	1	RECORD	1	LENGTH	168BYTES
(0)	00000150	00507684	01420745	00000000	00000227 000001F5 000014EE 000007D2 FFFFFFFF FFFFFFFF
(40)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF 00000000 000002F9
(80)	00000243	00000608	00000072	00002407	00000057 FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(120)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(160)	FFFFFFFF	FFFFFFFF			

FILE	1	RECORD	2	LENGTH	168BYTES
(0)	00000150	00508144	01420747	00000000	00000227 000001F5 000014EE 000007D3 FFFFFFFF FFFFFFFF
(40)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF 00000000 000002F6
(80)	0000023F	00000608	0000006A	0000249A	00000057 FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(120)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(160)	FFFFFFFF	FFFFFFFF			

FILE	1	RECORD	3	LENGTH	168BYTES
(0)	00000150	00508C04	01420749	00000000	00000227 000001F5 000014EE 000007D3 FFFFFFFF FFFFFFFF
(40)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF 00000000 000002F9
(80)	00000244	00000608	00000077	000022FB	00000057 FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(120)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(160)	FFFFFFFF	FFFFFFFF			

FILE	1	RECORD	4646	LENGTH	168BYTES
(0)	0000015A	01AA0981	014CAC7B	00000000	000001ED 00000390 00000879 000008EE FFFFFFFF FFFFFFFF
(40)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF 00000000 000002FD
(80)	0000025D	00000699	000000C3	000013D8	00000059 FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(120)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(160)	FFFFFFFF	FFFFFFFF			

FILE	1	RECORD	4647	LENGTH	168BYTES
(0)	0000015A	01AB0441	014CAC7D	00000000	000001ED 00000390 00000879 000008EE FFFFFFFF FFFFFFFF
(40)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF 00000000 000002FE
(80)	0000025F	00000699	000000C6	000013DE	0000005A FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(120)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(160)	FFFFFFFF	FFFFFFFF			

FILE	1	RECORD	4648	LENGTH	168BYTES
(0)	0000015A	01AB0F01	014CAC7F	000000FF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(40)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(80)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF FFFFFFFF
(120)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	00000000 00000305 0000026B 00000699 00000111 000010ED
(160)	00000358	FFFFFFFF			

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY	INPUT RETRIES
				PERM. ZERO B SHORT UNDEF.	#RECS. TOTAL#
1	4648	4651	168	0 0 0 0	0 0

EOJ DUMP STOPPED AFTER FILE 1 # OF PERMANENT READ ERRORS 0

START TIME 03/06/79 11:10:47 STOP TIME 03/06/79 11:12:34

ESA-GEOS 1

ION COMPOSITION DATA ON TAPE

77-029A-03B SPMS-00032

THIS DATA SET HAS BEEN RESTORED. ORIGINALLY IT CONTAINED TWO 9-TRACK, 1600 BPI TAPES WRITTEN IN BINARY. THERE IS ONE RESTORED TAPE. THE DR TAPE IS A 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI. THE ORIGINAL TAPE WAS CREATED ON AN IBM 370/178 COMPUTER AND WAS RESTORED ON THE MRS. THE DR AND DS NUMBER ALONG WITH THE CORRESPONDING D NUMBER AND TIME SPAN IS AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR005626	DS005626	D034009	1-3	07/28/77 - 07/29/77
		D031988	4-7	12/01/77 - 12/12/77

REQ. AGENT

VJP

RAND NO.

RD0778

ACQ. AGENT

MJT

ESA-GEOS-1

ION COMPOSITION DATA

77-029A-03B

This data set catalog consists of 2 data tape. The tapes are 9 track, 1600 BPI, Binary, with 4 files of data. The tapes were created on an IBM 370/178 computer. Some of the files have dummy records at the beginning.

Time span is as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-31988	C-20090	F1 12/01/77 F2 12/02/77 F3 12/02/77 F4 12/12/77
D-34009	C-20627	3F 07/28/77 - 07/29/77

Parameters of GEOS-1/2303 tape for WDC-1

- 1100 1/2" tape
- 9-track
- odd parity
- no label
- 1000 rpm
- tape written on IBA 370/178 and can be read with an unformatted READ statement in either FORTRAN or PL/I.

Description of files

- tape contains 4 files (3 file marks + end of tape mark)
- contents of files:

<u>File</u>	<u>Date</u>	<u>Day</u>	<u>GEOS pass</u>	<u>UT start/end</u>	<u>Approx. # obs.</u>
1	Dec. 77	336	NASA	16.55/17.15	140
2	Dec. 77	336	ODNW	01.06/09.13	30
3	Dec. 77	336	NASA	13.45/17.01	150
4	Dec. 77	346	ODNW	01.06/09.13	305

- approximate number of bytes total = 9.4 M bytes

Proposal for subset of data to be used for NOAA

- NOAA (i.e. strip out) only following parameters:

1) PRIMARY DATA record

Fields 1, 2, 3, 4 (28 bytes)

2) AUXILIARY DATA record

Fields 10, 16, 2, 3, 5, 6, 9 (48 bytes)

- NOAA % of reduced data set (not including record length fields) = 4 bytes = 3812 bytes

- NOAA % number of bytes = 6.1 M bytes.

Dr. Martin A. Leber and D. Young

University of Bern

1. August 1970

Notes: 1) Data are written so that they can be accessed by an unformatted READ statement in either FORTRAN or PL/I.

2) Tapes were written with an IBM 370/178

Writing program parameters:

RECFM = VBS, LRECL = 628, BLKSIZE = 10176

PHYSICAL RECORD

<u>Data</u>	<u>Length (bytes)</u>
(Physical record length)	(4)
Slow auxiliary data record	124
Experiment data record 1	628
" 2	628
"	"
"	"
"	"
Experiment data record 16	628
total = 10176	

Notes: 3) Experiment data record corresponds to 88.064 sec of real time operation = 64 s/c formats.

4) Only valid data with good quality are written.

Slow Auxiliary Data Record

<u>Item</u>	<u>Data</u>	<u>Type</u>	<u>Length (bytes)</u>
	(Record length)	—	(4)
1.	Format counter	integer	4
2.	Year (YY)	"	2
	Day of year (DDD)	"	2
	Hours UT corresponding to format counter	"	2
	Minutes UT	"	2
	Seconds. msec UT	real	4

RAW DATA DATA continued

3.	Local time (HH.MM)		real	4 bytes
4.	Radial distance in units of 10 km		integer	4
	Latitude in degrees x 100		"	2
	Longitude in degrees x 100		"	2
5.	Plasma frequency in units of 5 Hz		"	2
6.	Direction cosines of spin	V	"	2
	axis in VDH system	D	"	2
	normalized to 10000	H	"	2
7.	Direction cosines of	V	"	2
	magnetic dipole in VDH	D	"	2
	normalized to 10000	H	"	2
8.	Direction cosines of sun	V	"	2
	in VDH normalized to	D	"	2
	10000	H	"	2
9.	Rate of change of radial distance (km/hour)		"	2
	" " " " latitude (degrees x 100/hour)		"	2
	" " " " longitude (degrees x 100/hour)		"	2
10.	Spacecraft housekeeping data, 9 words		"	18
	of 2 bytes each (5)			
11.	Payload status index, 4 words of 4 bytes each (5)		"	16
	Spare		character	32
				total = 124

Notes: 5) Description of housekeeping and payload status are contained in ESOC documents SA/SA/11.

c) Dummy auxiliary data record has the same configuration as above but all integer and real data are set to zero.

EXPERIMENTAL DATA RECORD

Item	Data	Type	Length (words)
	(Record length)	—	(4)
1.	Fast auxiliary data ⁽⁷⁾ , 9 words of 2 bytes each + 1 spare	integer	20
2.	Hours UT of the first experiment sample of the first four format unit unit (PFU)	"	2
	Minutes UT	"	2
	Seconds, msec UT	real	4
3.	Exp. telecommand word 1 of first PFU ⁽⁸⁾	integer	4
	" " " 2 " " "	"	4
	" " " 1 of last PFU ⁽⁸⁾	"	4
	" " " 2 " " "	"	4
	Spare (4 words)	"	16
3.	Reset position of first CMD execution flag ⁽⁹⁾	"	2
	" " " last " " "	"	2
4.	Analog housekeeping data of first PFU ⁽¹⁰⁾	"	6
	" " " " second "	"	6
	" " " " third "	"	6
	" " " " fourth "	"	6
	Spare	character	16
5.	Energy step number sample 1 ⁽¹¹⁾	integer	2
	" " " " 2	"	2
	" " " " .	"	2
	" " " " .	"	2
	" " " " .	"	2
	Energy step number sample 32	"	2
6.	Mass step number sample 1 ⁽¹¹⁾	"	2
	" " " " 2	"	2
	" " " " .	"	2
	" " " " .	"	2
	" " " " .	"	2
	Mass step number sample 32	"	2
7.	Mass detector variable DL (MVAR) ⁽¹¹⁾ sample 1	real	4
8.	Mass detector fixed DL (MFIx) sample 1	"	4

FAST DATA RECORD continued

6.	Energy detector (ED) sample 1 (1)	"	4 bytes
7.	XVAR sample 2	real	4
8.	MTIX " 2	"	4
9.	ED " 2	"	4
.	.	.	.
.	.	.	.
.	.	.	.
7.	XVAR sample 32	"	4
8.	MTIX " 32	"	4
9.	ED " 32	"	4
			total = 628

Notes: 7) Contents of FAST AUXILIARY DATA:

<u>Item</u>	<u>Type</u>	<u>Length (Bytes)</u>
1a. First Euler angle in degrees x 100	Integer	2
Second " " " "	"	2
Third " " " "	"	2
1b. Angular velocity in degrees x 100 notated per format	"	2
1c. Magnetic field in 10^{-6} Gauss } V	"	2
(= 0.1 gamma = 0.1 nT) } D	"	2
} H	"	2
1d. Magnetic field angles relative } polar	"	2
to s/c axes in degrees x 100 } azimuth	"	2
		20

8) If the CMD word changes in the first or last FPU then this CMD word is not valid (see Note (9)) and the next value of the CMD word should be used.

9) Gives the sample number (1-32) where a new telecomm. is executed. If more than one CMD is executed in a FPU (which is not likely) then the sample number of the last executed CMD is also given. If there is no new CMD during the FPU then this is set to 99.

10) See Experiment S303 Interlock Sec. and test sheet.

11) A single experiment sample consists of:

Energy step, Mass step, MVAR, MFIX, ED

for each of 32 samples per FFU. The detector counting rates MVAR, MFIX and ED are given in units of counts per 0.150 second (= 1 sample) corrected for dead time of 1.0 μ sec.

12) Dummy experiment data record: Hours UT, Energy step and Mass step are set to 99. All other data is set to zero.

DUMP OF TAPE X-208

D-31988

ESA-GEOS-1

INPUT TAPE X-208 ON MS1
DATA INPUT H9 NF 4 FL 4 2 1

F1 12/01/77

F2 12/02/77

F3 12/02/77

F4 12/12/77

FILE	1	RECORD	1	LENGTH	10176BYTES
(0)	27C00000	007C0000	00000000	00000000	00000000
(40)	00000000	00000000	00000000	00000000	00000000
(80)	00000000	00000000	00000000	00000000	40404040
(120)	40404040	40404040	02740000	07054398	F9C61F9B
(160)	00000000	00000000	00000000	00000000	01E84840
(200)	007300E0	00C70031	0034003F	00EE003A	003A0024
(240)	40404040	00020002	00020002	00020002	00020002
(280)	00020002	00020002	00020002	00020002	00020002
(320)	000A000B	000C0000	000E000F	00100011	00120013
(360)	001E001F	00200021	00220023	00000000	00000000
(400)	00000000	41F0061F	41100006	415000AE	4213009D
(440)	4212008D	00000000	00000000	422101DA	00000000
(480)	00000000	00000000	421400AE	00000000	41100006
(520)	00000000	41E00555	00000000	00000000	41B0034B
(560)	41D00499	00000000	00000000	41900234	00000000
(600)	00000000	00000000	4212008D	00000000	41100006
(640)	00000000	41900234	00000000	00000000	41900234
(680)	41C003EB	00000000	00000000	418001BD	00000000
(720)	00000000	00000000	41C003EB	00000000	00000000
(760)	F7A34397	F9C61F9B	FEC9039A	02B037A3	0BB60000
(800)	00000000	01E84840	00000000	01E84840	00000000
(840)	0000008B	007300E0	00C7002B	0032003F	40404040
(880)	00020002	00020002	00020002	00020002	00020002
(920)	00020002	00020002	00030003	00030003	00240025
(960)	00300031	00320033	00340035	00360037	00380039
(1000)	00000000	00000000	418001BD	00000000	00000000
(1040)	00000000	41A002B8	00000000	00000000	421500C0
(1080)	41B0034B	00000000	00000000	41700155	00000000
(1120)	00000000	41100006	41E00555	00000000	00000000
(1160)	4130003E	42160002	41100006	4120001B	42190110
(1200)	4211007D	00000000	00000000	41C003EB	00000000
(1240)	00000000	00000000	41A002B8	00000000	00000000
(1280)	00000000	4210006F	00000000	00000000	4213009D
(1320)	41B0034B	00000000	00000000	418001BD	00000000
(1360)	00000000	00000000	41C003EB	00000000	00000000
(1400)	02B032AE	D9560000	0000FCA7	42146ABD	00000000
(1440)	01E84840	00000000	00630063	00EE0039	003A0024
(1480)	003A0024	40404040	40404040	40404040	40404040
(1520)	00030003	00030003	00030003	00030003	00030003
(1560)	00030003	00040005	00060007	00080009	000A000B
(1600)	00160017	00180019	001A001B	001C001D	001E001F
(1640)	00000000	00000000	418001BD	00000000	00000000
(1680)	4212008D	42160002	4140006F	41B0034B	421700E6
(1720)	41D00499	00000000	00000000	41C003EB	00000000
(1760)	00000000	00000000	418001BD	00000000	00000000
(1800)	00000000	41C003EB	00000000	00000000	41B0034B
(1840)	41C003EB	00000000	00000000	4211007D	00000000
(1880)	00000000	00000000	4211007D	00000000	00000000
(1920)	00000000	418001BD	00000000	00000000	41B0034B
(1960)	41B0034B	00000000	00000000	4210006F	00000000
(2000)	00000000	00000000	41F0061F	02740000	DBAA4396
(2040)	4219EB89	00000000	00000000	00000000	01E84840
(2080)	0000008B	007300E0	00C7002B	0039003F	00EE0039
(2120)	40404040	40404040	00030003	00030003	00030003
(2160)	00030003	00030003	00030003	00030003	00030003
(2200)	00280029	002A002B	002C002D	002E002F	00300031
(2240)	003C003D	003E003F	00000001	00020003	00000000

Dump the 1st

2 Records of each
file

Record 1 is

usually a dummy
record

1	(	3)	27C00000	007C0000	01427F40	004D014F	00100033	41624DD2	4172195F	00001171	0A2BC791	001EFEBF
2	(	4)	FB17D945	12AB076F	217F0547	21D8ED3A	0040FD88	FED6005E	00340027	003D00FF	00370006	007C0098
3	(	80)	0FA0D33D	0C000002	167AB420	6C5C605C	40404040	40404040	40404040	40404040	40404040	40404040
4	(	123)	40404040	40404040	02740000	27B54366	FA651F9D	FC89010A	030A328A	12210000	00100033	41624DD2
5	(	163)	00000000	00000000	00000000	00000000	01E84840	00000000	01E84840	00000000	00630063	0000008B
6	(	200)	007300E0	00C70030	0035003F	00EE0038	003C0024	0000008B	007300E0	40404040	40404040	40404040
7	(	240)	40404040	00050005	00050005	00050005	00050005	00050005	00050005	00050005	00050005	00050005
8	(	283)	00050005	00050005	00050005	00050005	00050005	00050005	00050005	00040005	00060007	00080009
9	(	323)	000A000B	000C000D	000E000F	00100011	00120013	00140015	00160017	00180019	001A001B	001C001D
10	(	360)	001E001F	00200021	00220023	00000000	00000000	41900234	00000000	00000000	41700155	00000000
11	(	400)	00000000	41700155	00000000	4130003E	41F0061F	41100006	418001BD	416000FA	41100006	41700155
12	(	443)	4140006F	00000000	41100006	418001BD	00000000	00000000	41900234	00000000	00000000	4170C155
13	(	480)	00000000	00000000	415000AE	00000000	00000000	41A002B8	00000000	00000000	4130003E	00000000
14	(	520)	00000000	4130003E	00000000	00000000	415000AE	00000000	00000000	4130003E	00000000	41100006
15	(	563)	4130003E	00000000	00000000	416000FA	00000000	00000000	415000AE	00000000	00000000	41700155
16	(	603)	00000000	00000000	4120001B	00000000	00000000	41700155	00000000	00000000	4130003E	00000000
17	(	640)	00000000	41700155	00000000	41100006	416000FA	00000000	00000000	415000AE	00000000	00000000
18	(	680)	4120001B	00000000	00000000	4130003E	00000000	00000000	41900234	00000000	00000000	418001BD
19	(	723)	00000000	00000000	4120001B	00000000	00000000	41900234	00000000	00000000	41C003EB	02740000
20	(	763)	19894366	FA641F9D	FC89010A	030A328A	12210000	00100033	41BA5E5F	00000000	00000000	00000000
21	(	800)	00000000	01E84840	00000000	01E84840	00000000	00630063	00C7002D	0039003F	00EE0038	003C0024
22	(	843)	0000008B	007300E0	00C70029	0034003F	40404040	40404040	40404040	40404040	00050005	00050005
23	(	883)	00050005	00050005	00050005	00050005	00050005	00050005	00050005	00050005	00050005	00050005
24	(	920)	00050005	00050005	00060006	00060006	00240025	00260027	00280029	002A002B	002C002D	002E002F
25	(	960)	003C0031	00320033	00340035	00360037	00380039	003A003B	003C003D	003E003F	00000001	00020003
26	(	1000)	00000000	00000000	415000AE	00000000	00000000	416000FA	00000000	00000000	4140006F	00000000
27	(	1043)	00000000	41B0034B	00000000	00000000	4130003E	00000000	00000000	416000FA	00000000	00000000
28	(	1080)	418001BD	00000000	00000000	415000AE	00000000	00000000	41C003EB	00000000	00000000	416000FA
29	(	1123)	00000000	00000000	41C003EB	00000000	00000000	41B0034B	00000000	00000000	4130003E	00000000
30	(	1163)	00000000	4120001B	00000000	00000000	415000AE	00000000	00000000	4140006F	00000000	00000000
31	(	1200)	415000AE	00000000	00000000	4130003E	00000000	00000000	415000AE	00000000	00000000	416000FA
32	(	1240)	00000000	00000000	41100006	00000000	00000000	416000FA	00000000	00000000	418001BD	00000000
33	(	1280)	00000000	416000FA	00000000	4120001B	4140006F	00000000	41100006	4120001B	00000000	00000000
34	(	1323)	416000FA	00000000	41100006	415000AE	00000000	41100006	418001BD	00000000	00000000	4140006F
35	(	1360)	00000000	00000000	415000AE	00000000	00000000	416000FA	02740000	0B584365	FA631F9D	FC89010A
36	(	1400)	030A328A	12210000	00100033	421126EE	00000000	00000000	00000000	00000000	01E84840	00000000
37	(	1443)	01E84840	00000000	00630063	00EE0037	003C0024	0000008B	007300E0	00C7002E	0037003F	00EE0037
38	(	1480)	003C0025	40404040	40404040	40404040	40404040	00060006	00060006	00060006	00060006	00060006
39	(	1520)	00060006	00060006	00060006	00060006	00060006	00060006	00060006	00060006	00060006	00060006
40	(	1563)	00060006	00040005	00060007	00080009	000A000B	000C000D	000E000F	00100011	00120013	00140015
41	(	1600)	00160017	00180019	001A001B	001C001D	001E001F	00200021	00220023	00000000	00000000	416000FA
42	(	1640)	41100006	4120001B	4140006F	00000000	00000000	416000FA	4120001B	415000AE	416000FA	41100006
43	(	1680)	4130003E	4140006F	41100006	4130003E	41700155	00000000	41100006	4140006F	00000000	00000000
44	(	1723)	4130003E	00000000	00000000	415000AE	00000000	00000000	41700155	00000000	00000000	4170C155
45	(	1763)	00000000	00000000	41700155	00000000	41100006	4140006F	00000000	00000000	00000000	00000000
46	(	1800)	00000000	4140006F	00000000	00000000	41900234	00000000	00000000	4130003E	00000000	00000000
47	(	1843)	416000FA	00000000	00000000	4140006F	00000000	00000000	415000AE	00000000	00000000	4140006F
48	(	1880)	00000000	00000000	418001BD	00000000	00000000	416000FA	00000000	00000000	416000FA	00000000
49	(	1920)	00000000	416000FA	41100006	41100006	41100006	00000000	41100006	4140006F	00000000	41100006
50	(	1960)	415000AE	00000000	00000000	41A002B8	00000000	00000000	4130003E	00000000	00000000	4140006F
51	(	2000)	00000000	00000000	416000FA	02740000	FD2D4365	FA631F9D	FC89010A	030A328A	12210000	00100033
52	(	2043)	4216A7F7	00000000	00000000	00000000	00000000	01E84840	00000000	01E84840	00000000	00630063
53	(	2080)	0000008B	007300E0	00C7002B	003A003F	00EE0037	003C0024	0000008B	007300E0	40404040	40404040
54	(	2120)	40404040	40404040	00060006	00060006	00060006	00060006	00060006	00060006	00060006	00060006
55	(	2163)	00060006	00060006	00060006	00060006	00060006	00060006	00070007	00070007	00240025	00260027
56	(	2200)	00280029	002A002B	002C002D	002E002F	00300031	00320033	00340035	00360037	00380039	003A003B
57	(	2240)	003C003D	003E003F	00000001	00020003	00000000	00000000	4140006F	00000000	00000000	4140006F
58	(	2283)	00000000	00000000	00000000	00000000	41100006	4120001B	00000000	00000000	41A002B8	00000000
59	(	2320)	00000000	4140006F	00000000	00000000	415000AE	00000000	00000000	4140006F	00000000	00000000
60	(	2360)	416000FA	00000000	00000000	416000FA	00000000	00000000	416000FA	00000000	00000000	41100006
61	(	2400)	00000000	41100006	415000AE	00000000	00000000	4130003E	00000000	00000000	4140006F	00000000
62	(	2443)	00000000	4140006F	00000000	00000000	4140006F	00000000	41100006	415000AE	00000000	00000000
63	(	2480)	4130003E	00000000	00000000	415000AE	00000000	00000000	416000FA	00000000	00000000	4120001B
64	(	2520)	00000000	00000000	4120001B	00000000	00000000	4140006F	00000000	00000000	415000AE	00000000



(3080)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(3120)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(3160)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(3200)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(3240)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

FILE	INPUT	DATA RECORDS	MAX.	READ ERROR SUMMARY				INPUT RETRIES	
	RECS.	INPUT	SIZE	PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
4	387	388	10176	0	0	0	0	21	22

EOJ DUMP STOPPED AFTER FILE 4 # OF PERMANENT READ ERRORS 0

START TIME 11/16/78 15:33:04 STOP TIME 11/16/78 15:36:59

ESA-GEOS 1

LOW ENERGY ION COMPOSITION DATA

77-029A-03C SPMS-00534

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on a 3033 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005851	DS005851	D034565	1 - 3	07/28/77 - 07/29/77

REQ. AGENT

VJP

RAND NO.

RD2815

ACQ. AGENT

MJT

ESA-GEOS-1

LOW ENERGY ^{LOW} ~~LOW~~ COMPOSITION

77-029A-03C

This data set catalog consists of 1 data tape. The tape is 9 track, 1600 BPI, Binary with 3 files of data. The tape was created on a 3033 computer

Time span is as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-34565	C-20669	07/28/77 - 07/29/77



11-10-10000

Physikalisches Institut

2.1

Dr. D.T. Young

CH - 3012 Bern, Sidlerstrasse 5
Telex CH 32 320, Telefon 031 65 86 11

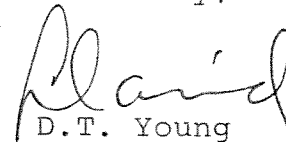
August 3, 1979 1r

Dr. M.J. Teague
(CDAW 2 Workshop)
Code 601
NASA Goddard Space Flight Center
Greenbelt, Maryland 20771
USA

Dear Mike,

Enclosed is a description of our tape containing moments calculated from GEOS-1 data for the CDAW 2 workshop. The tape is being sent separately via airmail. I consider these data to be quite useful and hope they can be included in the data base.

Sincerely,


D.T. Young

Encl.: Tape description
(Magnetic tape sent under separate cover)



National Aeronautics and
Space Administration

IMS/SATELLITE SITUATION CENTER

CDAW TAPE DOCUMENTATION FORM

SECTION I. DATA SET DESCRIPTION (please print)

1. Data Set Name ESA-GEOS1 Low-Energy Ion Composition / Moments	
2. Scientific Contact Dr. D.T. Young	3. Telephone No. or Telex No. 31 6544 14 or 11 / Telex 32320
4. Address Univ. of Bern, Physikalisches Institut, Sidlerstrasse 5	
5. City CH-3012 Bern	6. State /
7. ZIP Code or Country Switzerland	
8. Programmer Contact Dr. D.T. Young / Dr. L. Weber	

SECTION II. TAPE DESCRIPTION

1. No. of Tapes Submitted one	2. Tape Density ☐ 800 bpi ☒ 1600 bpi
3. No. of Files (per tape) 3	
4. No. of End of File Marks 2 + end of tape mark	5. No. of Tracks ☐ 7 ☒ 9
6. Recording Parity odd	7. Make and Model of Computer Used to Generate Tape IBM 3033
8. Are tapes written in binary, coded or both? (e.g. BCD) binary	
9. What floating point representation is used? (e.g. CDC 64 bit) IBM 32 bit	
10. What integer representation is used? IBM 32 bit	
11. No. of Physical Records (per file) Varies, see print out.	
12. Are original tapes to be returned? ☒ Yes ☐ No	
13. Start and Stop Time of Each File (If more space is needed, please attach.) File 1 : 1131 - 1906 UT Day 209 2 : 0002 0002 - 0148 UT Day 210 3 : 1047 - 1853 UT "	

SECTION III. LOGICAL AND PHYSICAL RECORD FORMAT (please attach)

SECTION IV. TO BE FILLED IN BY IMS/SSC ONLY

CDAW No.

Date Received	Tape No.
Programmer ID	CON No.
Data Base	Date Loaded

ESA-GEOS1 Low Energy Ion Composition/Moments

Description of RECORD FORMAT for CDAW 2

Prepared by D.T. Young and L. Weber

University of Bern

2 August 1979

Moments given on this tape are calculated over the following energy per unit charge ranges:

<u>Ion</u>	<u>Range</u>
H ⁺	25 - 16400 eV/e
He ⁺⁺	25 - 16400 eV/e
He ⁺	25 - 16400 eV/e
O ⁺⁺	25 - 13920 eV/e
O ⁺	25 - 13920 eV/e

~~Data is written in (constant) blocks of 1680 bytes.~~

Variable length records

<u>Item</u>	<u>Data</u>	<u>Type</u>	<u>Length (bytes)</u>
A	(Record length)		(4)
1	Day number	I	4
2	UT Start HH.MM	R	4
	" " SS.SS	R	4
	UT Stop HH.MM	R	4
	" " SS.SS	R	4
3	No. of header lines (k)	I	4
4	No of ion species (n)	I	4
			32
B	(Record length)		(4)
5	Ion species	CHARACTER	4
6	Number density	R	4
7	Mean total flux	R	4
8	Mean differential flux	R	4
9	Mean energy	R	4
10	Mean background counts	R	4

Notes on data

Item Comment

- A Header record. This is repeated k times where k is given by item 3.
- 2 Start and stop times cover period of integration over which moments are calculated.
- 3 For CDAW 2, $k = 1$
- 4 For CDAW 2, $n = 5$
- B Data record, repeated n times.
- 5 Ion species are H^+ , He^{++} , He^+ , O^{++} and O^+ in that order.
- 6 Density in $[cm^{-3}]$
- 7 Total flux in $[cm^{-2}s^{-2}]$
- 8 Differential flux $[cm^{-2}s^{-1}sr^{-1}eV^{-1}]$
- 9 Energy $[eV e^{-1}]$ (i.e. eV per unit charge)
- 10 Background $[counts s^{-1}]$

DUMP OF TAPE X-404

INPUT TAPE X-404 ON MS1
DATA INPUT H9 NF 3 FL 3 1 110-34560
ESA-6805-1
7/28/77-7/29/77
03C

FILE	1	RECORD	1	LENGTH	1668BYTES
(0)	06840000	00200000	00012099	41B4F5C1	41387443 41B5C28E 423790C6 00000001 00000005 00100000
(40)	044E4040	402F5A14	47119B04	4419D73A	441E1742 41F0DD21 00100000 044E4040 3F566404 4614F8A8
(80)	431D76F6	4416D148	41F0DD21	00100000	044E4040 3FA69E7C 45DF925F 4369305E 436D3E72 41F0DD21
(120)	00100000	064E4E40	3F3AC278	4535A0D2	42EEEBB1 4354BE12 41F0DD21 00100000 064E4040 BF437D24
(160)	05361783	031A2709	43AC208D	41F0DD21	00020000 00012099 41C3AE13 4225323F 41C4A3D6 421D4BD8
(200)	00000001	00000005	00100000	084E4040	402FA1CC 47113FF9 441CE5C6 4419B334 414916F6 00100000
(240)	08C54E4E	3F1875ED	4543CE7E	431289C3	441264DC 414916F6 00100000 08C54E40 3F8DA7A6 4584BE46
(280)	43558901	432DF67D	414916F6	00100000	064E4E40 BF21B4D6 C55819AB 424EEDF9 441AF250 414916F6
(320)	00100000	064E4E40	3F5665C4	458C5211	C265F537 4414C30F 414916F6 00200000 00012099 41C4A3D6
(360)	421D77E1	41C59998	42158D61	00030001	00000005 00100000 084E4040 40338CA6 46F9F51A 4423D9F1
(400)	4414121D	413EE097	00100000	08C54E4E	3F1F0742 455DBBFE 43110213 441147D4 413EE097 00100000
(440)	08C54E40	3F46D45A	45587954	4328C7ED	436F7052 413EE097 00100000 064E4E40 3E8D35B2 C48B0FDC
(480)	C22287D7	C42C02DA	413EE097	00100000	064E4040 3F610C5C 4574B371 427C2A9A 43FFD15A 413EE097
(520)	00200000	00012099	41C5C28E	4236C6BC	41C6B851 422EDC3D 00000001 00000005 00100000 084E4040
(560)	40321FEB	46E3AD65	44298C6A	441275A9	41394F18 00100000 08C54E4E 3E3EC7F8 C52C275A 431ED75F
(600)	044138FE	41394F18	00100000	08C54E40	3F46A400 453CD6A4 433CBB3F 4347A16B 41394F18 00100000
(640)	064E4E40	BECE9627	C5234D3D	C266D5BA	442CD25D 41394F18 00100000 064E4040 3F883A58 4555FE83
(680)	433B0038	438E4521	41394F18	00200000	00012099 41C73333 422FFE0A 41C828F5 4228138E 00000001
(720)	00000005	00100000	084E4040	402F272E	46F68C6F 441DF45D 4415E724 4135C6D2 00100000 08C54E4E
(760)	3F167838	4568584B	4267FE57	441C7A2B	4135C6D2 00100000 08C54E40 3EA6371C 453106EC 423A7311
(800)	4433B852	4135C6D2	00100000	064E4E40	3F308767 452FE2B4 43149CD3 434D227D 4135C6D2 00100000
(840)	064E4040	3D61997D	C5324B6D	4312FC2F	C5AFB708 4135C6D2 00200000 00012099 41C8A3D6 4229314D
(880)	41CFFFFF	42214AD9	00000001	00000005	00100000 084E4040 4029CE71 46D4E03D 441AEAB6 4414DA36
(920)	413100D9	00100000	08C54E4E	BDCEBCA2	452457D2 C212F548 C516DB2C 413100D9 00100000 08C54E40
(960)	3E39369D	451A5C1F	42147888	44386F99	413100D9 00100000 064E4E40 3D4DA3F7 C5139F3B 425F14C8
(1000)	C53CC746	413100D9	00100000	064E4040	3F445FF8 4514DCAF 42DD0344 C32A49FC 413100D9 00200000
(1040)	00012099	41D028F5	412E068D	41D0F5C1	4236F5E9 00000001 00000005 00100000 084E4040 4029F722
(1080)	46EBD679	4416B653	4417880C	41269F0B	00100000 08C54E4E BF187C4B C5546596 C2B9D57D 441370BF
(1120)	41269F0B	00100000	08C54E40	3F507CFC	452A3E8B 43402F89 421F6CBE 41269F0B 00100000 064E4E40
(1160)	BF1993E0	C5221F4D	C25D9BF5	4391C19C	41269F0B 00100000 064E4040 BE87D0D0 44C45BF9 C271EBD4
(1200)	C42B1D8C	41269FCB	00200000	00012099	41D170A3 4237E76C 41D26665 422FFCEC 00000001 00000005
(1240)	00100000	084E4040	402D9AA5	46F46C29	441F381D 4417135B 411E3299 00100000 08C54E4E 3D231331
(1280)	C47B866E	41FCA91A	C5125662	411E3299	00100000 08C54E40 3F1E3BEB 455B9E3B 42994F15 4418D131
(1320)	411E3299	00100000	064E4E40	3F3954F6	4554D6CF 42CEAB5E 441173C0 411E3299 00100000 064E4040
(1360)	3F44EAE4	45399217	42FFF6BF	4398600B	411E3299 00200000 00012099 41D2E146 42311EBA 41D3D709
(1400)	4229343E	00000001	00000005	00100000	084E4040 403217FD 46FA8712 4423FAF7 4414E2AB 411E9C7F
(1440)	00100000	08C54E4E	BE38C8D5	C512F424	C2230E93 442A8FAC 411E9C7F 00100000 08C54E40 3F2E5B56
(1480)	45425F05	43131ED2	439A2E06	411E9C7F	00100000 064E4E40 3F15B1AD C3D2936A 4258D336 C3E84EA2
(1520)	411E9C7F	00100000	064E4040	BF2BC7BF	C4FCA03B C2B8C7F8 C3236A41 411E9C7F 00200000 00012099
(1560)	41D451EA	422A51F0	41D547AD	42226771	00000001 00000005 00100000 084E4040 4035E7CA 471104CB
(1600)	4429C036	4415B489	4117FE1E	00100000	08C54E4E BEA7768D C516D113 C2795FE6 43A607CA 4117FE1E
(1640)	00100000	08C54E40	3F246A8C	455956A7	429CCE62 4414322D 4117FE1E

FILE	1	RECORD	5	LENGTH	404BYTES
(0)	C1940000	00100000	064E4E40	3E3E409E	C51908C4 422340FD C47AE025 411F0665 00100000 064E4040
(40)	4E195F8A	4564310F	43B01B91	428514E8	411F0665 00200000 00012099 421287AD 4234DC35 421297D9
(80)	422CF1B6	00000001	00000005	00100000	084E4040 3EF21884 4415B341 431DD66E C355FC37 411868D4
(120)	00100000	08C54E4E	3F1BD389	45661592	42682FEE 4415804A 411868D4 00100000 08C54E40 BE263826
(160)	4441D4E8	C2164BD5	C445A4B0	411868D4	00100000 064E4E40 3F1DE5BD 454FCF78 C21F69DC 441E9E7D
(200)	411868D4	00100000	064E4040	3F9D10D8	4523C95F 43468964 421BA555 411868D4 00200000 00012099
(240)	4213028E	4138C543	42130F5B	4237A5ED	00000001 00000005 00100000 084E4040 BF27D727 C5199915
(280)	C31CF07A	C3AC452C	41DCEE23	00100000	08C54E4E BF3C7C6D 45261A8C C316F156 C419DED5 41DCEE23
(320)	00100000	08C54E40	BF65A974	C530773D	C33607B2 C36B4A74 41DCEE23 00100000 064E4E40 BF2B0CAF
(360)	C54AB105	C32C01B9	C31F243C	41DCEE23	00100000 064E4040 C01352AE C5C89EDE C3382A8F 433FD847
(400)	41DCEE23				

FILE INPUT DATA RECORDS MAX. READ ERROR SUMMARY INPUT RETRIES

FILE	2	RECORD	1	LENGTH	1668BYTES
()	00	06840000	00200000	00012D9A	3F51E885 42183BFE 4C147AED 4210534A 00000001 00000005 00100000
(40)	00	084E4040	402F7B19	471042CE	4410E4DF 441781EE 41AE00D9 00100000 C8C54E4E 3F258AE7 453E0CA0
(80)	00	4320D229	433FD7FD	41AE00D9	00100000 C8C54E40 3F921F5C 45B58195 4353DF7F 4365F22F 41AE00D9
(120)	00	00100000	D64E4E40	3F47C362	45ABC285 C215A56C 441E68E1 41AE00D9 00100000 D64E4040 3F4267FC
(160)	00	45403318	431C872D	4416CADF	41AE00D9 00200000 00012D9A 40147AED 42107F52 4023D709 418965D2
(200)	00	00000001	00000005	00100000	C84E4040 403761FD 46D64CC2 4443D628 43F6298F 418C3BA2 00100000
(240)	00	C8C54E4E	3F10B93C	45532010	424865F5 44213B22 418C3BA2 00100000 C8C54E40 3F9B6374 4552E351
(280)	00	43C26F6D	43342EEA	418C3BA2	00100000 D64E4E40 3F7ED12F 45DFC009 43121CDD 4412EA83 418C3BA2
(320)	00	00100000	D64E4040	3F510C28	45251161 4322B484 4355C437 418C3BA2 00200000 00012D9A 4023D709
(360)	00	418C2655	40333332	40D96EEB	00000001 00000005 00100000 C84E4040 402FAA76 46AE6959 443A6F09
(400)	00	43D71884	41A8C6A4	00100000	C8C54E4E 3EB2B200 455BCAB7 42162741 4444E6F9 41A8C6A4 00100000
(440)	00	C8C54E40	3ECB440E	452165EC	4328EC02 4435A705 41A8C6A4 00100000 D64E4E40 BF368F9D 451A70DF
(480)	00	C31D4828	C3FB4E3E	41A8C6A4	00100000 D64E4040 3EC1D4D8 453FAAB8 C2794058 447AB867 41A8C6A4
(520)	00	00200000	00012D9A	40333332	41105771 403FFFFF 42351C81 00000001 00000005 00100000 C84E4040
(560)	00	4031945B	46AFFDA9	4442BB74	43D96F8F 41983AB2 00100000 C8C54E4E 3F18123C 451BCF69 431BFE51
(600)	00	43646DD0	41983AB2	00100000	C8C54E40 3F21F73E C5138133 43375565 C3A09DE9 41983AB2 00100000
(640)	00	D64E4E40	3F5FB0C4	45935DFC	4321B5D1 4414234E 41983AB2 00100000 D64E4040 3F3661E7 4520CF2B1
(680)	00	431BAE11	43B3A6BF	41983AB2	00200000 00012D9A 403FFFFF 4235488A 404F5C28 422D5FD5 00000001
(720)	00	00000005	00100000	C84E4040	4143A773 4813094A 451740F9 43DE70FC 412F2871 00100000 C8C54E4E
(760)	00	405DD448	47141834	44185DAC	43F056BC 412F2871 00100000 C8C54E40 3F8C7286 461D12E2 434F4DBA
(800)	00	43ED62D6	412F2871	00100000	D64E4E40 3E79201A C548E6DD 4319172D C486D075 412F2871 00100000
(840)	00	D64E4040	3FB245C0	45247EAC	433682EF C3446340 412F2871 00200000 00012D9A 404F5C28 422D8BDE
(880)	00	405EB851	4225A2E7	00000001	00000005 00100000 C84E4040 4266B71B 489380E2 468F2F5B 4319B9D9
(920)	00	4114AEEE	00100000	C8C54E4E	412B6357 4769EE63 4510D202 437FC5CB 4114AEEE 00100000 C8C54E40
(960)	00	402EFC98	462CD8F6	4419671F	43312E23 4114AEEE 00100000 D64E4E40 BF139A98 C4EFCAB3 C26CD498
(1000)	00	42B8D1C1	4114AEEE	00100000	D64E4040 3E8EE6B4 C45477D1 42891ABE C4139964 4114AEEE 00200000
(1040)	00	00012D9A	405EB851	4225CEFC	406E147A 421DE5FA 00000001 00000005 00100000 C84E4040 42B2E45B
(1080)	00	48D62281	47132B0C	431342F8	412D16F3 00100000 C8C54E4E 41B53FD3 48122C01 4568DC1B 4337AD17
(1120)	00	412D16F3	00100000	C8C54E40	3F40C37A 459AD7E3 42CF5824 441002BE 412D16F3 00100000 D64E4E40
(1160)	00	BF30B9D9	C526AA8E	C31D7AEF	431CA444 412D16F3 00100000 D64E4040 BF3EE532 C55C6D97 4282E91F
(1200)	00	441306A5	412D16F3	00200000	00012D9A 407D70A3 42165515 408CCCCC 41E6C1FB 00000001 00000005
(1240)	00	00100000	C84E4040	428C82AD	49113CAD 46AA409F 4332195D 4116D72D 00100000 C8C54E4E 4141B53C
(1280)	00	4759B58C	45310CA1	4332248A	4116D72D 00100000 C8C54E40 3F324A40 4566326A 427C1D02 43A76702
(1320)	00	4116D72D	00100000	D64E4E40	BE549D46 45162DCA C26C6367 C4419593 4116D72D 00100000 D64E4040
(1360)	00	BF30BC45	C54097A6	C2A2C6BA	43F32FA0 4116D72D 00200000 00012D9A 408CCCCC 41E9827E 411028F5
(1400)	00	416AF322	00000001	00000005	00100000 C84E4040 43142B5F 491DA824 4710CF47 4319C9DA 416696DC
(1440)	00	00100000	C8C54E4E	412B6EC7	473CB034 451EBD66 432D258D 416696DC 00100000 C8C54E40 BF76409A
(1480)	00	C5FDACF4	C325C740	43E7CE79	416696DC 00100000 D64E4E40 BFCF320F C61329CE C32FA283 43E2F44D
(1520)	00	416696DC	00100000	D64E4040	C011387D C6146617 C32C380E 4410EED5 416696DC 00200000 00012D9A
(1560)	00	411028F5	416DB3A5	4110F5C2	423AF243 00000001 00000005 00100000 C84E4040 428E76A0 48B87AF2
(1600)	00	46DF7737	43157568	412A31A9	00100000 C8C54E4E 41B29DBA 4814DE86 455D8D5D 43463D27 412A31A9
(1640)	00	00100000	C8C54E40	3F673272	461091C1 4322354A 4412DE97 412A31A9

FILE	2	RECORD	2	LENGTH	1264BYTES
()	00	04FC0000	00100000	D64E4E40	3E78997F 4538B404 C23BE264 4485F4AC 412A31A9 00100000 D64E4040
(40)	00	BF22D9EB	C567A91A	4319F93A	442D2D05 412A31A9 00200000 00012D9A 4110F5C2 423B1E4C 4111EB84
(80)	00	42333556	00000001	00000005	00100000 C84E4040 421E6F53 4843995F 46242088 43466C2C 411C211B
(120)	00	00100000	C8C54E4E	41732091	47B33DF8 4544856C 433500E6 411C211B 00100000 C8C54E40 3F473D2E
(160)	00	45A1DF57	42BCC893	43DE373F	411C211B 00100000 D64E4E40 BF195B3E C5216AC5 C2755915 43A942B3
(200)	00	411C211B	00100000	D64E4040	3F4CA4D8 C4673BB5 432B1DF5 C36DE480 411C211B 00200000 00012D9A
(240)	00	4111EB84	4233615F	4112E146	422B7827 00000001 00000005 00100000 C84E4040 42312530 487D5DAC
(280)	00	462D2299	433C6249	41581C68	00100000 C8C54E4E 4143AF13 475A683F 452F362C 43281853 41581C68
(320)	00	00100000	C8C54E40	BF3FF07A	C59DAE74 C2FBC2C7 43F9F217 41581C68 00100000 D64E4E40 BFAEA11D
(360)	00	C61D2757	C3289299	43E6963A	41581C68 00100000 D64E4040 BFFDB8EC C6112B74 C328AD61 43F47D41
(400)	00	41581C68	00200000	00012D9A	4112E146 422BA430 4113D7C9 4223BB39 00000001 00000005 00100000
(440)	00	C84E4040	42BDE955	491D1AFC	471145E4 431A5927 4156DFB6 00100000 C8C54E4E 41294B34 474BA2B3
(480)	00	451C2337	435AAD39	4156DEB6	00100000 C8C54E40 BF4E0C5E C5B05E19 C31302C9 43FCB5EC 4156DEB6
(520)	00	00100000	D64E4E40	BF983D3B	C5ECE671 C323DF34 43FE8D2D 4156DEB6 00100000 D64E4040 C01037D2
(560)	00	C611BB33	C328DAD1	43F7296A	4156DEB6 00200000 00012D9A 4113D709 4223E742 4114CCCC 421BFE4B
(600)	00	00000001	00000005	00100000	C84E4040 42CB4279 49116485 4712CF23 43165D20 411FDA31 00100000
(640)	00	C8C54E4E	4198E679	48105333	4556CB7F 4341C5ED 411FDA31 00100000 C8C54E40 3F333F1A 4583236E
(680)	00	429D7AD4	44126238	411FDA31	00100000 D64E4E40 BED85D11 C444D995 C2702690 C33A099D 411FDA31

(800)	43377088	41267892	00100000	C8C54E4E	41DFD64B	48181174	45771806	43402E85	41267892	00100000
(840)	C8C54E40	3F5F261A	45F1E9FD	42A475FB	43FA31A2	41267892	00100000	D64E4E40	BF355D89	C53815F1
(880)	C2F87B8F	438168A1	41267892	00100000	D64E4040	3F6ACA58	458E77E6	4320E61C	44201351	41267892
(920)	00200000	00012D9A	4115C28E	42146D25	4116B851	41C84301	00000001	00000005	00100000	C84E4040
(960)	425D000E	48D56369	465D4A1A	433F2179	41517E07	00100000	C8C54E4E	4176F707	47B64B3E	45478FDE
(1000)	43363EF1	41517E07	00100000	C8C54E40	3F15ECB8	452482FC	4212DBB3	C335253B	41517E07	00100000
(1040)	D64E4E40	BF7ACBDE	C5C177DC	C3155475	44101B54	41517E07	00100000	D64E4040	BFA6BDEC	C5CBE5F9
(1080)	C31B5923	4412F1CC	41517E07	00200000	00012D9A	4116B851	41CB0384	4117AE14	414C7010	00000001
(1120)	00000005	00100000	C84E4040	4311408B	491B49FD	47164C14	431E7485	415FF87B	00100000	C8C54E4E
(1160)	412B5E6C	473FB1A1	45243A41	4342C43E	415FF87B	00100000	C8C54E40	BF3F16B4	C5ACCD7C	C318847E
(1200)	441851F5	415FF87B	00100000	D64E4E40	BFBB036B	C6122E06	C32B08CC	43FBD8D4	415FF87B	00100000
(1240)	D64E4040	BF091DBC	C5DEA6F4	C326D56F	43E4493A	415FF87B				

FILE	INPUT RECS.	DATA INPUT	RECORDS	MAX. SIZE	READ PERM	SUMMARY ZERO B	SHORT UNDEF.	INPUT RETRIES #RECS.	TOTAL#
2	2	3		1668	0	C	0	0	0

FILE	3	RECORD	1	LENGTH	1668BYTES					
(0)	D6840000	00200000	00012D9A	41A7851E	42200B45	41A87AE2	421822C6	00000001	00000005	00100000
(40)	C84E4040	4121D0E4	4772001B	452E4934	43E45002	4143B0E7	00100000	C8C54E4E	3EBB2DE9	452F000A
(80)	4280B895	441F1921	4143B0E7	00100000	C8C54E40	4047C6F0	468DB235	44194B8B	43C49C78	4143B0E7
(120)	00100000	D64E4E40	3F8EFECF	45C0CB3E	433650A5	4413B480	4143B0E7	00100000	D64E4040	4114AD8A
(160)	46F27B1A	44598B5A	439CEE48	4143B0E7	00200000	00012D9A	41B170A3	423B821B	41B26665	42339BR5
(200)	00000001	00000005	00100000	C84E4040	41225287	47710B58	4535E918	43E2EB00	4149EB96	00100000
(240)	C8C54E4E	BF2A3284	C58F646B	C3126AFA	4411D83D	4149EB96	00100000	C8C54E40	4071E1B8	466E8EA2
(280)	445606D4	433A8B76	4149EB96	00100000	D64E4E40	402FAFE9	4621C7DC	44200F46	43782B83	4149EB96
(320)	00100000	D64E4040	41241EB8	471280B8	44D0B833	435ACBDE	4149EB96	00200000	00012D9A	41B2E146
(360)	4234B969	41B3D709	422CCEEA	00000001	00000005	00100000	C84E4040	40D2C224	47587862	4472A016
(400)	442048C1	412B3D7A	00100000	C8C54E4E	3F26FD89	453E2C94	4329642B	437C678E	412B3D7A	00100000
(440)	C8C54E40	411178D1	46B203C2	4510C64C	431E5362	412B3D7A	00100000	D64E4E40	3F81664C	46174AB3
(480)	42D71DAE	442A022F	412B3D7A	00100000	D64E4040	406C4100	46B3B6E1	43BB3D63	441EB620	412B3D7A
(520)	00200000	00012D9A	41B451EA	422DF0B7	41B547AD	4226C639	00000001	00000005	00100000	C84E4040
(560)	408EE0B1	473DF642	443D5572	44210F38	411D5ECD	00100000	C8C54E4E	3F2ED588	45438BC3	43311ED8
(600)	435683E9	411D5ECD	00100000	C8C54E40	411C3E23	46BAA477	44DD78A6	432120F3	411D5ECD	00100000
(640)	D64E4E40	3F27CED0	45781681	422312EE	442CD460	411D5ECD	00100000	D64E4040	4088CF70	469D6729
(680)	4420027E	4412EF16	411D5ECD	00200000	00012D9A	41B5C28E	4226F7E5	41B6E851	421F117F	00000001
(720)	00000005	00100000	C84E4040	4115F3F0	473E3D6E	45263666	43B5A7B8	412138FB	00100000	C8C54E4E
(760)	BD90EDD2	44133DFE	C217DEFD	C4269A51	412138FB	00100000	C8C54E40	40534642	46335936	4454027F
(800)	431A3C05	412138FB	00100000	D64E4E40	3FF31D28	458DECFC	43C17B1D	43607E72	412138FB	00100000
(840)	D64E4040	40602A4C	467DC289	44109C8E	4414D5D5	412138FB	00200000	00012D9A	41B73332	42232F34
(880)	41B82BF5	421844B4	00000001	00000005	00100000	C84E4040	41109819	4737A5D4	45181868	43DA0047
(920)	41186804	00100000	C8C54E4E	BE1011D4	4512651C	C2483FA6	C4AF6D81	41186804	00100000	C8C54E40
(960)	40157838	461954BE	43D0B9A6	434ECAD6	41186804	00100000	D64E4E40	3FE790F1	45A8EF6D	43946572
(1000)	4371E0D8	41186804	00100000	D64E4040	4113B963	46AF4C59	44690097	4362ABBA	41186804	00200000
(1040)	00012D9A	41B8A3D6	4219626A	41C00000	42117C04	00000001	00000005	00100000	C84E4040	40D01E24
(1080)	4734BCDF	4511AE7D	4411B84B	411CA78C	00100000	C8C54E4E	3E681EEB	453D2A71	424E5FF0	445070CA
(1120)	411CA78C	00100000	C8C54E40	4023DF0C	461809E2	44235FE5	431E08BF	411CA78C	00100000	D64E4E40
(1160)	3FEC56A2	45807FB2	43A91223	434A5786	411CA78C	00100000	D64E4040	405D9AC4	464BDAFE	441F9A6E
(1200)	43B93AB6	411CA78C	00200000	00012D9A	41C028F5	4139482A	41C0F5C2	4237AA03	00000001	00000005
(1240)	00100000	C84E4040	40D4C5BD	4730C5F9	451464CA	43FC398B	4114C39D	00100000	C8C54E4E	BE801C4F
(1280)	C4617DA8	C26E29BA	C33D0CB92	4114C39D	00100000	C8C54E40	3FD4E614	45FDB525	43742C41	43557B3D
(1320)	4114C39D	00100000	D64E4E40	3FE9C4CA	458139B8	43C1E5F1	4357E0DA	4114C39D	00100000	D64E4040
(1360)	40628DF4	46623083	441691A1	43E56D2C	4114C39D	00200000	00012D9A	41C17DA3	42391FC8	41C26665
(1400)	42313961	00000001	00000005	00100000	C84E4040	411C6481	47296A54	451F9164	439C63EB	41115F8E
(1440)	00100000	C8C54E4E	BE23AD46	4442D4F5	C2482A6F	C3671D05	41115F8E	00100000	C8C54E40	3FFC18EA
(1480)	45C52D58	43F1777A	433C5953	41115F8E	00100000	D64E4E40	40175C96	45AB190A	441C766F	43286D1B
(1520)	41115F8E	00100000	D64E4040	404ACECC	46522F95	43CBE1CF	43F2D1DE	41115F8E	00200000	00012D9A
(1560)	41C2E147	42322B0F	41C3D709	422A408F	00000001	00000005	00100000	C84E4040	408D19E1	472051D5
(1600)	44C433B2	43F626D3	41172A52	00100000	C8C54E4E	3F15D75B	456427DD	42604A42	44223A67	41172A52
(1640)	00100000	C8C54E40	401064DE	459C27AB	43F97434	432133BC	41172A52			

FILE	3	RECORD	5	LENGTH	920BYTES					
(0)	D3980000	00100000	D64E4E40	3FFDA450	46162E5D	4372B03F	4411093A	41FD93DC	00100000	D64E4040
(40)	412549CD	4715ACA7	451C9DF0	437632B9	41FD93DC	00200000	00012D9A	42123D6F	421FF6DE	42124CCC

(160) 4620D1ED 4438C310 4328AEFD 4217029C 001C0000 D64E4E40 3FD0D8F5 45EF1366 4381BE60 43CCAD91
(200) 4217029C 001C0000 D64E4040 4111B82B 4710EC3E 444AC862 43D1527D 4217029C 00200000 00012D9A
(240) 42124CCC 42183864 42125C28 42104DE5 00000001 00000005 001C0000 C84E4040 411743BF 4727831A
(280) 452FF989 4357DE83 421B4012 001C0000 C8C54E4E BF22B861 C57F24D1 4319C551 43AC1600 421B4012
(320) 001C0000 C8C54E40 4035D50C 4620ED12 4437CD05 43239743 421B4012 001C0000 D64E4E40 40125F08
(360) 461D93C7 43BD618C 43EF5430 421B4012 001C0000 D64E4040 41349942 471C2D03 4517915E 4363B3DC
(400) 421B4012 00200000 00012D9A 42125C28 421079ED 42126B84 4188F6E7 00000001 00000005 001C0000
(440) C84E4040 40FFA87F 471AC031 45234643 435601A4 421779BF 001C0000 C8C54E4E 3E9534E1 C54AA562
(480) 431160A0 C4356CF1 421779BF 001C0000 C8C54E40 403EC520 462DC784 44404512 432EE063 421779BF
(520) 001C0000 D64E4E40 4021C49D 4616B7EF 44180683 4362C322 421779BF 001C0000 D64E4040 41549834
(560) 4724C829 452C280F 434AAB79 421779BF 00200000 00C12D9A 42126B84 418BE76A 42127AE1 40D0F6D7
(600) 00000001 00000005 001C0000 C84E4040 40D8AB9D 46FC1CA7 4520E2DA 432B30F8 41E2B073 001C0000
(640) C8C54E4E BF43E1D2 C61466A9 C2FD7B77 4420721C 41E2B073 001C0000 C8C54E40 4054D4AA 463B09DE
(680) 4455D846 432FD210 41E2B073 001C0000 D64E4E40 4011D3F8 4619E61F 437E712F 44109257 41E2B073
(720) 001C0000 D64E4040 412A5BC4 472C48EF 44A1E1D0 43EED628 41E2B073 00200000 00012D9A 42127AF0
(760) 40FCFF08 421287AD 42351280 00000001 00000005 001C0000 C84E4040 40952BAE 46676A19 4517AA9C
(800) 425F6A08 413139EF 001C0000 C8C54E4E 3EDDF2BA 451934BF 426712B1 4363A452 413139EF 001C0000
(840) C8C54E40 401E1F90 46357BFD 4412E52B 43C16180 413139EF 001C0000 D64E4E40 3FA92842 461251D5
(880) 4321AF5F 44111F1B 413139EF 001C0000 D64E4040 407BE228 46AC4C0A 43B66704 441437D8 413139EF

FILE	INPUT	DATA RECORDS	MAX.	READ ERROR SUMMARY				INPUT RETRIES	
	RECS.	INPUT	SIZE	PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
3	5	6	1668	0	0	0	0	0	0

EOJ DUMP STOPPED AFTER FILE 3 # OF PERMANENT READ ERRORS 0

START TIME 09/10/79 13:34:54 STOP TIME 09/10/79 13:35:18

\$\$

\$ASS IN MS3 OUT MS1

ESA-GEOS 1

LOW ENERGY PLASMA

77-029A-04B SPMS-00153

THIS DATA SET HAS BEEN RESTORED. THERE WERE ORIGINALLY TWO 9-TRACK, 1600 BPI TAPES, WRITTEN IN BINARY AND ONE 9-TRACK, 1600 BPI TAPE WRITTEN IN EBCDIC. THERE IS ONE RESTORED TAPE, FILES 1-4 ARE WRITTEN IN BINARY, AND FILES 5-6 ARE WRITTEN IN ASCII. THE TAPES D032067, AND D032923 CONTAINED VOLUME LABELS THAT WERE REMOVED DURING RESTORATION. THE DR TAPE IS A 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI. THE ORIGINAL TAPES WERE CREATED ON AN IBM 360 COMPUTER AND WERE RESTORED ON AN IBM 9021 COMPUTER. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	DD#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005311	DS005311	DD032067	1-2	12/01/77 - 12/11/77
		DD032923	3-4	12/01/77 - 12/11/77
		DD033558	5-6	12/02/77 - 12/12/77

REQ. AGENT

VJP

RAND NO.

RD0911
RD1448

ACQ. AGENT

DMS
MJT

ESA-GEOS-1

LOW ENERGY PLASMA

77-029A-04B

This catalog consists of 3 data tapes. The tapes are 1600 BPI, Binary, 9 track, with 3 files of data each. The tapes were created on a NORD 10 computer.

The time span is found by taking the first 4 bytes and breaking it down from Hex to Decimal. Then subtract that number for the MODIFIED JULIAN DAY (MJD is: HR 0 Jan. 1, 1977 = 9862).

Time span as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-32067	C-20133	12/01/77 - 12/11/77
D-32923	C-20295	12/01/77 - 12/11/77
D-32558 33558	C-20519	12/02/77 - 12/12/77

S310 Data Base Specification

1) Physical record size

Data records: 5720 bytes

Label record: 80 bytes

2) Logical record size

Label record: 80 bytes

Data records: 1430 bytes

3) Files

Number of files: 3 (including label file)

Number of EOF's: 4

End of tape (EOT) is marked by 2 consecutive EOF's.

4) Number of records per file

<u>File</u>	<u>Records</u>	<u>Content</u>
1	1	Label
2	89	Data, 2:nd Dec. 1977
3	95	Data, 12:th Dec. 1977

5) Tape characteristics

Number of tracks: 9

Recording density: 1600 BPI

Recording mode: Phase Encoded (PE)

Recording parity: Odd

6) Computer and tape transports

Computer: NORD 10 (Norsk Data A.S.)

Tape trp: PERTEC T9640-98-75

(Interrecord gap 0.6 in.)

7) Record specification

Unless other stated, all figures below refers to 8-bit bytes.

Standard 80-byte Vol 1 Header label (EBCDIC)

*Label
Deleted
During
Restoration*

Offset	Length	Content
0	4	Vol 1
4	6	Volume number
10	37 27	Spares (black)
37	4	Experiment id. (S310)
41	6	Tape creation date (Year-1900, Month, Day)
47	33	Spares (black)

Data record

A logical data record is composed of 22 bytes auxiliary data and 64 frames (each 22 bytes long) of experimental data. The auxiliary data refers to frame 1 apart from the magnetic field angles number 2 through 4 which refers to frame 17, 33 and 49 respectively. The time difference between 2 consecutive frames is 1.376 seconds and, thus, a logical record constitutes 88.064 seconds of experimental data.

Auxiliary data

<u>Offset</u>	<u>Length</u>	<u>Content</u>
0	2	MJD. Modified Julian Day Number
2	4	UT. Universal time in milliseconds
6	4	EDT. Eccentric dipole time in sec.
10	2	R. Radial distance in units of 10 kms.
12	2	EDL. Eccentric dipole latitude in units of hundredth degrees.
14	2	PL1. Ref. Frm. 1
16	2	PL2. " " 17
18	2	PL3. " " 33
20	2	PL4. " " 49

Angle of local magnetic field with respect to spin axis. Unit in hundredth degrees.

$$T(F) = UT + (F - 1) \times 1.376 \times 1000$$

Experimental data

<u>Offset</u>	<u>Length</u>	<u>Content</u>	
22	1	QU. Quality byte	Frame 1
23	1	S2-8. Status detector 2-8	"
24	2	D2. Detector 2 count rate	"
26	2	D3. " 3 " "	"
28	2	D4. " 4 " "	"
30	2	D5. " 5 " "	"
32	2	D6. " 6 " "	"
34	2	D7. " 7 " "	"
36	2	D8. " 8 " "	"
38	1	S9. Status detector 9	"
39	1	S10. " " 10	"
40	2	D9. Detector 9 count rate	"
42	2	D10. " 10 " "	"
44	2	QU. Quality byte	Frame 2
46	2	S2-8. Status detector 2-8	"
1426	2	D9. Detector 9 count rate	Frame 64
1428	2	D10. " 10 " "	"

Quality byte = 0 Useful data in frame

= 255 Dummy frame

Status byte comprise 3 parameters as follows

(Bits in power of 2, i.e. 0=LSB)

Bits content

0 Type of particles measured: 0=electrons
1=positive ions

1-2 Energy scan mode: 0=sweep
1=fixed
2=stepping

3-7 Energy level number (E-level)

In the swept mode, the E-level reads (static) 23 indicating that the detector counts is obtained from an energy scan over the E-level numbers 16-23.

In the fixed and stepped mode the E-level number gives the actual E-level for the measurements.

The count rates is given as cts/86 msec.

Dummy data has the value 'FFFF' hexadecimal, i.e. all ones.

Overflow is represented by the value 16 000, i.e. to say that the count rate was above this upper limit.

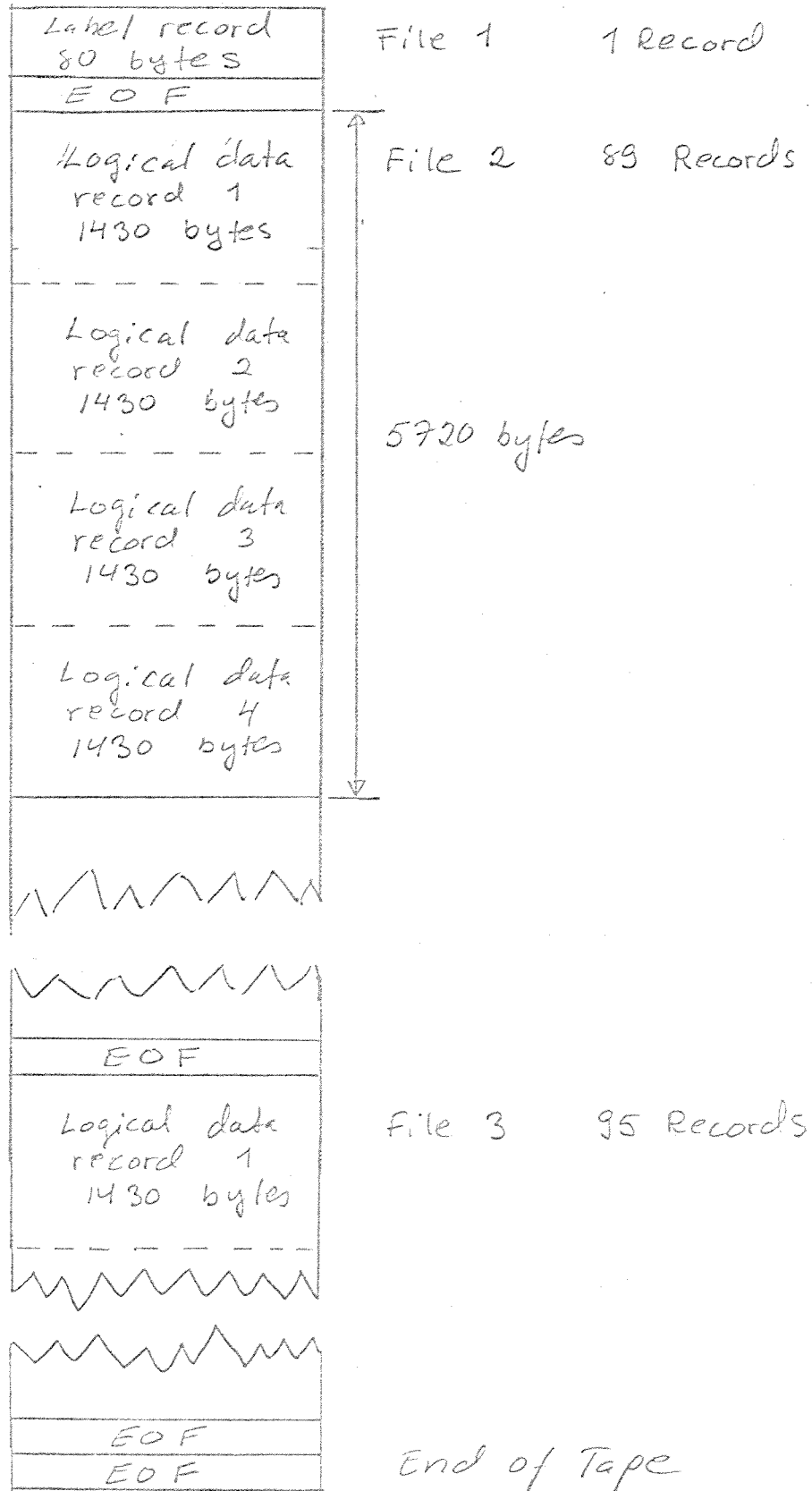
(c.f. figures 1 and 2).

Auxiliary Data		MJD	UT		EDT		R	EDL	PL1	PL2		PL3	PL4
Frame 1	QU S2-8	D2	D3	D4	D5	D6	D7	D8	S9	S10	D9	D10	
Frame 2	QU S2-8	D2	D3	D4	D5	D6	D7	D8	S9	S10	D9	D10	
88.064 sec.													
Frame 61	QU S2-8	D2	D3	D4	D5	D6	D7	D8	S9	S10	D9	D10	

Logical data record. (Scanned left $\rightarrow$ right (top $\rightarrow$ bottom))

Fig. 1.

Fig. 2 Tape Layout



DUMP OF TAPE X-404

D-32067
12/01/77-12/11/77INPUT TAPE X-404 ON MS4
DATA INPUT H9 NF 3 FL 3 1 1

FILE 1 RECORD 1 LENGTH 80BYTES

(0)	E5D6D3F1	F3F1F2F3	F1F44040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40F0F7F0
(40)	F9F7F8E2	F3F1F040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY				INPUT RETRIES	
				PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
1	1	1	80	0	0	0	0	0	0

FILE 2 RECORD 1 LENGTH 5720BYTES

(0)	27D5D042	E7480000	485E0D25	04B1FFFF	FFFFFFFF	3D34FFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(40)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(80)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(120)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(160)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(200)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(240)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(280)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(320)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(360)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(400)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(440)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(480)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(520)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(560)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(600)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(640)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(680)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(720)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(760)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(800)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFF007D	0032003A	0C22001D	FFFFFFFF	0018B9EB	0075FFFF	007D005B	
(840)	00600051	0039FFFF	FFFF0021	B9EB00C0	FFFF0085	004C004D	00510047	00200014	0018B9EB	00990108	
(880)	00850065	0054004E	0043017D	004A0018	B9EB00C7	01C70085	00460035	00410039	0023FFFF	0029B9EB	
(920)	0084FFFF	0085005A	005D005A	0061FFFF	FFFF0023	B9EB00CF	FFFF008D	00570043	00500030	00220024	
(960)	0014B9EB	00BC00DA	008D003E	004C0037	003E0038	0079002F	B9EB00A2	0124008D	006A0065	00600047	
(1000)	002E0019	0025B9B9	00D4008D	008D004B	0059004A	0046FFFF	FFFF0021	B9B900AC	FFFF008D	00640068	
(1040)	004D0041	FFFFFFFF	0027B9B9	00BEFFFF	00950073	005F005D	004A0027	001F0023	B9B90094	00A70095	
(1080)	005E0073	0061005D	00DA002A	002CB9B9	00D400FC	00950051	00330026	001E003F	FFFF0025	B9B90054	
(1120)	FFFF0095	0076007C	00660051	FFFFFFFF	0029B9B9	00C5FFFF	009D006C	005E006B	0042002B	001A0029	
(1160)	B9B900AE	00A0009D	00710060	00600049	004E00BA	0025B9B9	00BC00CC	009D006D	00660061	00600034	
(1200)	001E002E	B9B900E3	0096009D	0065005D	00500053	FFFF00FF	0016B9B9	00B4FFFF	009D0076	00660068	
(1240)	0051FFFF	FFFF0022	B9B900D2	FFFF00A5	006A0072	00490048	FFFF00FF	0023B9B9	00BEFFFF	00A50087	
(1280)	007F0076	0061FFFF	FFFF0039	B9B900C3	FFFF00A5	004A002B	0021000E	003C0022	0018B9B9	002C00A2	
(1320)	00A5007C	0077007C	005F002C	0017002D	B9B900C0	00A300AD	006B0076	00620057	0030001A	0027B9B9	
(1360)	009600A7	00AD0075	00740068	005AFFFF	FFFF003B	B9B900BC	FFFF00AD	007C0077	006E005D	FFFF0024	
(1400)	0030B9B9	00B60094	00AD0080	007B0079	005C0038	0020002F	B9B900EA	009C27D5	00443F49	000048AB	
(1440)	002D04B6	3CFD3CDF	3CDD3CE1	00AD0096	006D007A	00500035	00250035	B9B900CC	009F00B5	007B006A	
(1480)	00730057	FFFFFFFF	001FB9B9	00AEFFFF	00B50084	0092007E	0073FFFF	FFFF002B	B9B900CC	FFFF00B5	
(1520)	004D002E	001D0013	0042002B	0024B9B9	002D009D	00B50081	0082007D	007A002E	001C0029	B9B900CC	
(1560)	009300BD	007900B2	0069005D	002F0023	002EB9B9	00B00094	00BD0084	008F007F	0073FFFF	FFFF002A	
(1600)	B9B900C0	FFFF00BD	00670065	006F005A	FFFF002A	0039B9B9	00A2009C	00BD0072	0070008D	007F004F	
(1640)	0027002F	B9B900DD	00A200C5	00850089	00780060	003E001F	0045B9B9	00B800AA	00C50086	00860067	
(1680)	0062FFFF	FFFF0037	B9B900BA	FFFF00C5	008E0092	006B0058	FFFFFFFF	0042B9B9	00D4FFFF	00C50065	
(1720)	0050002D	00240047	00350025	B9B90065	00B400C5	0090007C	00690085	002E0028	003AB9B9	00D400A3	
(1760)	00CD007D	00710059	006D002C	FFFF0036	B9B900AE	FFFF00CD	00850065	005C0049	FFFFFFFF	003CB9B9	
(1800)	00C3FFFF	00CD0068	00550044	00460054	0026002D	B9B9007C	008C00CD	0083007B	00630049	00430027	
(1840)	004BB9B9	00E000B2	00D50061	005D0043	00410040	003C0033	B9B900BE	00A700D5	005E004F	00510046	
(1880)	FFFFFFFF	001BB9B9	00ACFFFF	00D50053	0054003D	003BFFFF	FFFF003C	B9B900DD	FFFF00D5	005E004D	
(1920)	003D002F	0033002A	002EB9B9	009C0087	00D50064	00470033	0031004C	002A0027	B9B900B8	00D400B8	

(4120)	FFFFFFFF	UUUUFFFF	UUUUUUUU	UUUUFFFF	UUUUFFFF	FFFFFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	FFFF0000
(4160)	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU
(4200)	UUUUUUUU	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFF0000
(4240)	UUUUUUUU	FFFF0000	FFFFFFFF	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUFFFF	FFFF0000	FFFFFFFF	FFFF0000
(4280)	UUUUUUUU	UUUUUUUU	UUUU27D5	021FF15C	UUUUAA02	062E0159	46504650	46504650	UUUUFFFF	FFFFFFFF
(4320)	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	UUUUFFFF	UUUUUUUU	UUUUFFFF	UUUUFFFF
(4360)	FFFFFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	FFFF0000	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUUUUU
(4400)	UUUUFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU
(4440)	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	FFFF0000	FFFFFFFF	FFFFFFFF	FFFFFFFF
(4480)	UUUUUUUU	UUUUFFFF	UUUUFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF
(4520)	UUUUUUUU	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFF0000	FFFF0000	UUUUUUUU	FFFF0000	FFFFFFFF
(4560)	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUFFFF	UUUUFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU
(4600)	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU
(4640)	UUUUUUUU	FFFFFFFF	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	UUUUUUUU
(4680)	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFFFFFF	FFFF0000
(4720)	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUFFFF	UUUUFFFF	FFFFFFFF
(4760)	FFFFFFFF	FFFF0000	UUUUUUUU	FFFF0000	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUUUUU	UUUUFFFF
(4800)	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUUUUU
(4840)	UUUUFFFF	FFFFFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	FFFF0000	FFFFFFFF	FFFFFFFF	FFFF0000	UUUUUUUU
(4880)	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	UUUUUUUU
(4920)	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	FFFF0000	FFFFFFFF	FFFFFFFF
(4960)	FFFFFFFF	UUUUUUUU	UUUUFFFF	UUUUFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF
(5000)	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFF0000	FFFF0000	FFFF0000	UUUUUUUU	FFFF0000
(5040)	FFFFFFFF	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUFFFF	UUUUFFFF	UUUUFFFF	FFFF0000	UUUUUUUU	UUUUUUUU
(5080)	UUUUUUUU	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFFFFFF	FFFF0000	UUUUUUUU
(5120)	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUFFFF	UUUUFFFF	FFFFFFFF	FFFFFFFF
(5160)	FFFF0000	UUUUUUUU	FFFF0000	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF
(5200)	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	UUUUFFFF	UUUUUUUU	UUUUFFFF	UUUUFFFF
(5240)	FFFFFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	FFFF0000	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUUUUU
(5280)	UUUUFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU
(5320)	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	FFFF0000	FFFFFFFF	FFFFFFFF	FFFFFFFF
(5360)	UUUUUUUU	UUUUFFFF	UUUUFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF
(5400)	UUUUUUUU	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFF0000	FFFF0000	UUUUUUUU	FFFF0000	FFFFFFFF
(5440)	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUFFFF	UUUUFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU
(5480)	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU
(5520)	UUUUUUUU	FFFFFFFF	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	UUUUUUUU
(5560)	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUFFFF	FFFFFFFF	FFFFFFFF	FFFF0000
(5600)	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUFFFF	UUUUFFFF	FFFFFFFF
(5640)	FFFFFFFF	FFFF0000	UUUUUUUU	FFFF0000	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUUUUU	UUUUFFFF
(5680)	FFFFFFFF	FFFF0000	UUUUUUUU	UUUUUUUU	UUUUUUUU	FFFFFFFF	FFFFFFFF	UUUUUUUU	UUUUUUUU	UUUUUUUU

FILE	INPUT	DATA RECORDS	MAX.	READ ERROR SUMMARY				INPUT RETRIES	
	RECS.	INPUT	SIZE	PERM	ZERO	B	SHORT	UNDEF.	#RECS. TOTAL#
2	89	90	5720	0	0	0	0	0	0

FILE	3	RECORD	1	LENGTH	5720BYTES						
(0)	27DE0526	10760000	372E0832	03D2FFFF	3D313D02	3D60FFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(40)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(80)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(120)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(160)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(200)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(240)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(280)	FFFFFFFF	FFFF0014	000F000A	00070000	FFFFFFFF	0002F5F5	0031FFFF	00240007	00030005	0000FFFF	
(320)	FFFF0001	ED0D0036	FFFF0024	000C0003	00010000	00CF0108	0001ED0D	00230005	00240009	00050008	
(360)	00000004	01240003	ED0D003E	00060024	00090007	00080000	0124017D	0000ED0D	003D001F	00340012	
(400)	00060007	0000FFFF	FFFF0001	E5E50041	FFFF0034	00CE0009	00070000	FFFF011F	0002E5E5	00390007	
(440)	00340004	000D0004	000000B8	01000001	E5E5000E	00040034	0019000A	000D0000	01150135	0001E5E5	
(480)	003E0005	00340019	000E0013	0000FFFF	FFFF0003	E5E5003C	FFFF001A	00150009	00060000	FFFFFFFF	
(520)	00001B05	001EFFFF	001A0008	00030002	000000B0	01150001	1B1B0004	0000001A	00070008	00060000	
(560)	00ED0129	00001B1B	00020003	001A0013	0011000F	0000015C	FFFF0002	1B1B0001	FFFF001A	00160008	
(600)	000E0000	FFFFFFFF	00011B1B	0001FFFF	001A000E	00040007	000000B4	012F0000	1B1B0004	0000001A	
(640)	00090000	00040000	0007011F	00001B1B	00070000	001A0010	0010000D	00000129	01990000	1B1B0002	
(680)	0000001A	00180011	000E0000	FFFFFFFF	00021B1B	0003FFFF	001A000B	0005000A	0000FFFF	FFFF0002	
(720)	1B1B0000	FFFF001A	000B0005	000D0000	00B80147	00011B1B	00000000	001A000B	00040004	000000B0	

(5600)	00740000	95950001	00000024	00040000	00010000	FFFFFFFF	00009595	0002FFFF	00240002	00040004
(5640)	0000FFFF	FFFF0000	95950001	FFFF0024	00020000	00020000	00760077	00009595	00010000	00140000
(5680)	00010001	00000090	005A0000	95950002	00000014	00000002	00000000	0092FFFF	00009595	0002FFFF

FILE	INPUT	DATA RECORDS	MAX.	READ ERROR SUMMARY				INPUT RETRIES	
	RECS.			PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
3	31	32	5720	0	0	0	0	0	0

EOJ DUMP STOPPED AFTER FILE 3 # OF PERMANENT READ ERRORS 0

START TIME 01/17/79 15:36:05 STOP TIME 01/17/79 15:36:21

425
ESA-GEOS 1

LOW ENERGY ELECTRON + PITCH ANGLE

77-029A-04C SPMS-00095

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on a NORD 10 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005696	DS005696	D034072	1 - 4	07/28/77 - 07/29/77

REQ. AGENT

VJP

RAND NO.

RD2650

ACQ. AGENT

MJT

ESA-GEOS-1

LOW ENERGY SELECTION AND

PROTON PITCH ANGLE

77-029A-04C

This data set catalog consists of 1 data tape. The tape is
9 track, 1600 BPI, Binary with 4 files of data. The tape was created
on a NORD 10 computer. Note: Jan 1, 1977 = 9862

Time span is as follows:

D#

D-34072

C#

C-20654

TIME SPAN

07/28/77 - 07/29/77

CDAW TAPE DOCUMENTATION FORM

FORM 2.1

SECTION I. DATA SET DESCRIPTION (please print)

1. Data Set Name GEOS 1, S310		
2. Scientific Contact Kjell Rönmark	3. Telephone No. or Telex No. 080/127247, Telex 540 60 UMEÅ S	
4. Address Norra paviljongerna, Umeå Universitet		
5. City S-901 87 Umeå	6. State	7. ZIP Code or Country SWEDEN
8. Programmer Contact Lars Fernström		

SECTION II. TAPE DESCRIPTION

1. No. of Tapes Submitted 1	2. Tape Density ☐ 800 bpi ☒ 1600 bpi		
3. No. of Files (per tape) 4			
4. No. of End of File Marks 5 (2 EOF's at EOT)	5. No. of Tracks ☐ 7 ☒ 9		
6. Recording Parity Odd	7. Make and Model of Computer Used to Generate Tape NORD 10 (Norsk Data AS)		
8. Are tapes written in binary, coded or both? (e.g. BCD) Label in EBCDIC, Data records in binary.			
9. What floating point representation is used? (e.g. CDC 64 bit) No floating point.			
10. What integer representation is used? Negative numbers in 2's-complement form.			
11. No. of Physical Records (per file) File 1: 1 record... File 3: 167 records File 2: 147 records File 4: 46 records			
12. Are original tapes to be returned? ☐ Yes ☒ No			
13. Start and Stop Time of Each File (If more space is needed, please attach.)			
File	Date	Start time	Stop time
2	28:th of July 1977	11.59.26	19.13.53
3	29:th of July 1977	10.45.53	19.07.51
4	29:th of July 1977	00.00.04	02.15.06

SECTION III. LOGICAL AND PHYSICAL RECORD FORMAT (please attach)

SECTION IV. TO BE FILLED IN BY IMS/SSC ONLY

CDAW No. 2.1	
Date Received Jy 30	Tape No. X-322
Programmer ID AR	CON No. R2. old con G
Data Base 2.1	Date Loaded

SECTION III

GEOS 1

S310 Data Base Specification

1) Physical record size

Data records: 7212 bytes

Label record: 80 bytes

2) Logical record size

Data records: 3606 bytes

Label record: 80 bytes

3) Files

Number of files: 4 (including label file)

Number of EOF's: 5

End of tape (EOT) is marked by 2 adjacent EOF's.

4) Number of physical records per file.

<u>File</u>	<u>Records</u>	<u>Content</u>
1	1	Label
2	147	Data from the 28:th of July 1977
3	167	Data from the 29:th of July 1977
4	46	Data from the 29:th of July 1977

5) Record specification

Unless otherwise stated, all figures below refer to
8-bit bytes.

Standard 80-bytes Vol 1 Header Label

<u>Offset</u>	<u>Length</u>	<u>Content</u>
0	4	Vol 1
4	6	Volume number
10	37	Spares (blank)
37	4	Experiment id. (S310)
41	6	Tape creation date (Year-1970, month, day)
47	33	Spares (blank)

Data record

A logical data record is composed of 22 bytes auxiliary data and 256 frames (each 14 bytes long) of experimental data.

The auxiliary data refer to frame 1 except for the magnetic field angles number 2 through 4 which refer to frame 65, 129 and 193 respectively. The time difference between 2 consecutive frames is 0.344 seconds and, thus, a logical record constitutes 88.064 seconds of experimental data.

Auxiliary data

<u>Offset</u>	<u>Length</u>	<u>Content</u>
0	2	MJD. Modified Julian Day Number
2	4	UT. Universal Time in milliseconds
6	4	EDT. Eccentric Dipole Time in sec.
10	2	R. Radial distance in units of 10 kms.
12	2	EDL. Eccentric Dipole Latitude in units of hundredth degrees.
14	2	PL1. Ref. Frm. 1
16	2	PL2. " " 65
18	2	PL3. " " 129

} Angle of local magnetic field with respect to spin axis. Unit in hundredth degrees.

Experimental data

<u>Offset</u>	<u>Length</u>	<u>Content</u>	
22	1	QU. Quality byte	Frame 1
23	1	S2-8. Status detectors 2,7 and 8	"
24	2	D2. Detector 2 count rate	"
26	2	D7. " 7 " "	"
28	2	D8. " 8 " "	"
30	1	S9. Status detector 9	"
31	1	S10. " " 10	"
32	2	D9. Detector 9 count rate	"
34	2	D10. " 10 " "	"
36	1	QU. Quality byte	Frame 2
37	1	S2-8. Status detectors 2,7 and 8	"
.	.	.	.
.	.	.	.
.	.	.	.
3602	2	D9. Detector 9 count rate	Frame 256
3604	2	D10. " 10 " "	"

Quality byte = 0 Useful data in frame

= 255 Dummy frame

Status byte comprise 3 parameters as follows

(bits in power of 2, i.e. 0=LSB)

Bits Content

0 Type of particles measured: 0=electrons

1=positive ions

1-2 Energy scan mode: 0=sweep

1=fixed

2=stepping

3-7 Energy level number (E-level)

In the swept mode, the E-level reads alternately 8 and 23 indicating that the detector counts are obtained from an energy scan over the E-level numbers 15-8 and 16-23 respectively. In the fixed and stepped mode, the E-level number gives the actual E-level for the measurements.

The count rates are given as cts/86 msec.

Dummy data has the value 'FFFF' hexadecimal, i.e. all ones.

Auxiliary
Data

Frame 1
0.344 sec

MJD	UT		EDT			R	EDL	PL1	PL2	PL3	PL4
QU S2-8	D2	D7	D8	S9	S10	D9	D10				
QU S2-8	D2	D7	D8	S9	S10	D9	D10				
QU S2-8	D2	D7	D8	S9	S10	D9	D10				

88.064 sec

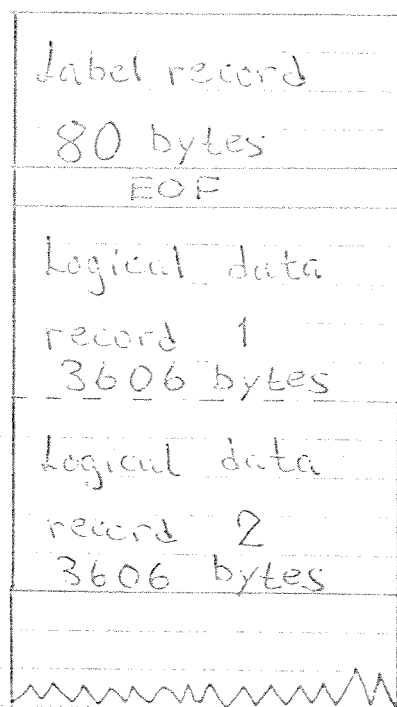
Frame 256

QU S2-8	D2	D7	D8	S9	S10	D9	D10
---------	----	----	----	----	-----	----	-----

Logical data record. (Scanned left → right (top → bottom))

Fig. 1.

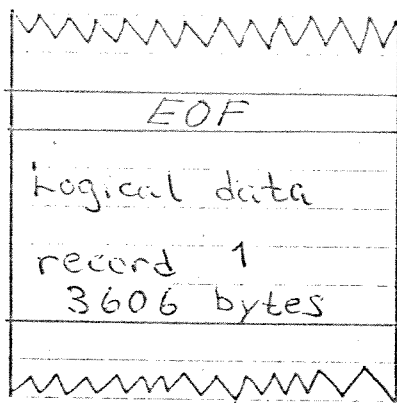
Fig. 2: Tape Layout



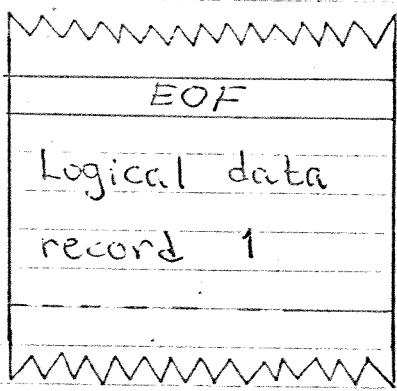
File 1 : 1 record

File 2 : 147 records

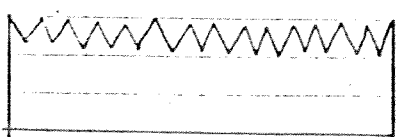
7212 bytes



File 3 : 167 records



File 4 : 46 records



INPUT TAPE X-400 ON MS2

DATA INPUT H9 NF 4 FL 2 1 1 SR 4 1 1 SR 4 LAST 1

FILE	1	RECORD	1	LENGTH	80BYTES
(0)	E5D6D3F1	F3F6F6F3	F6F74D40	40404040	40404040
(40)	F6F7F9E2	F3F1F040	40404040	40404040	40404040

FILE	INPUT	DATA RECORDS	MAX.	READ ERROR SUMMARY	INPUT RETRIES
	RECS.	INPUT	SIZE	PERM ZERO B SHORT UNDEF.	#RECS. TOTAL#
1	1	1	80	0 0 0 0	0 0

FILE	2	RECORD	1	LENGTH	7212BYTES
(0)	27560292	A9430000	B208106F	0315FFFF	FFFF097E
(40)	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF
(80)	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF
(120)	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF
(160)	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF
(200)	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF
(240)	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF
(280)	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF
(320)	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF	FFFFFFF
(360)	0013FFFF	0002B5B5	0013FFFF	00400032	FFFF0013
(400)	00400030	00100008	B5B5001A	003A00B8	00160008
(440)	002700B8	000A0007	0006BDBD	00100024	00400018
(480)	00080028	00400011	00150004	BDBD0006	002500B8
(520)	BDBD001B	002300B8	00140007	0002BDBD	0022001D
(560)	0007BDBD	0025FFFF	00400027	FFFF0000	BDBD0019
(600)	FFFF000F	BDBD001B	FFFF00B8	0018FFFF	0003BDBD
(640)	0011000B	0002BDBD	001A0029	0040002A	001F000C
(680)	00400013	00100004	C5C50014	002100B8	0000000E
(720)	002700B8	000B0008	0006C5C5	000C0018	0040001E
(760)	0014001A	0040002F	FFFF0012	C5C50019	FFFF00B8
(800)	C5C50027	FFFF00B8	0012FFFF	0003C5C5	0028FFFF
(840)	0004C5C5	0020FFFF	0040002D	FFFF000D	C5C50022
(880)	0020000B	C5C5001E	002000B8	000C0009	0005C0C0
(920)	0007000A	0005C0C0	0013000F	00400015	001C0006
(960)	0040001A	0013000D	C0C0001B	001500B8	00050007
(1000)	001B00B8	000DFFFF	0006C0C0	0016FFFF	0040002F
(1040)	0015FFFF	00400038	FFFF0009	C0C00019	FFFF00B8
(1080)	C0C00014	FFFF00B8	0015000B	0004C0C0	00100014
(1120)	0004D5D5	00140016	0040001D	00120008	D5D50011
(1160)	00120005	D5D5000B	001100B8	000F0005	0004D5D5
(1200)	000B0008	0006D5D5	00120014	00400028	00190015
(1240)	00400027	FFFF000C	D5D50013	FFFF00B8	0015FFFF
(1280)	FFFF00B8	000AFFFF	0005D5D5	000AFFFF	00400023
(1320)	000CFFFF	00400038	001A0012	D5D5000B	001D00B8
(1360)	DDDD000E	002100B8	000C000D	0007DDDD	000C0018
(1400)	0003DDDD	0009001B	0040001B	000E000B	DDDD0007
(1440)	00230009	DDDD0017	002300B8	000FFFFFF	0002DDDD
(1480)	001EFFFF	0003DDDD	0010FFFF	00400034	FFFF0014
(1520)	00400033	FFFF000D	DDDD000A	FFFF00B8	000BFFFF
(1560)	002700B8	000C000F	0003DDDD	0009001B	00400021
(1600)	00070016	00400019	0018000C	E5E50007	002200B8
(1640)	E5E5000D	001F00B8	00060008	0003E5E5	0008001A
(1680)	0005E5E5	00090024	00400024	FFFF00B8	E5E5000E
(1720)	FFFF000A	E5E50005	FFFF00B8	0012FFFF	0003E5E5
(1760)	0012FFFF	0007E5E5	0010FFFF	0040002A	0026000C
(1800)	0040002D	001A000F	EDED0012	002A00B8	000D0007
(1840)	001900B8	00060009	0001EDED	00070023	00400019
(1880)	000A0021	0040002D	0012000A	EDED000D	002500B8
(1920)	EDED0012	FFFF00B8	001BFFFF	000BEDED	0014FFFF

(2000)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2040)	000A000B	0002F5F5	0008002A	0040001E	00160012	F5F5000B	002400B8	000B0009	0001F5F5	001A002F	
(2080)	0040000D	00200007	F5F50008	002A00B8	000A000D	0004F5F5	000B0026	00400016	00110012	F5F50008	
(2120)	002400B8	000D000A	0005F5F5	00120023	00400027	FFFF000A	F5F5000B	FFFF00B8	0019FFFF	004F5F5	
(2160)	0013FFFF	0040002F	FFFF000B	F5F50016	FFFF00B8	0016FFFF	0006F5F5	000BFFFF	00400026	FFFF000E	
(2200)	F5F50013	FFFF00B8	001EFFFF	0006F5F5	0013FFFF	00400028	FFFF000C	F5F50012	FFFF00B8	000D0009	
(2240)	0002F5F5	001B001B	0040002F	001C000E	F5F50012	002600B8	00100019	004F00FD	000E0012	00400016	
(2280)	0010000D	FD0D0008	001D00B8	0007000A	0001FD0D	000C002B	00400011	000D0008	FD0D000C	003100B8	
(2320)	0007000B	0003FD0D	00060026	0040001E	00110007	FD0D000C	002100B8	000C0008	0003FD0D	000B002D	
(2360)	00400022	001F000E	FD0D000D	003400B8	000BFFFF	0006FD0D	000BFFFF	00400025	FFFF000C	FD0D0015	
(2400)	FFFF00B8	0011FFFF	0006FD0D	000CFFFF	0040002B	FFFF0017	FD0D0014	FFFF00B8	0013FFFF	0006FD0D	
(2440)	0010FFFF	00400036	FFFF000A	FD0D000C	FFFF00B8	0014000B	0009FD0D	0013002D	00400026	0022000F	
(2480)	FD0D000E	002100B8	00180037	0008FD0D	000E0022	0040001E	001D000F	FD0D0017	002600B8	000B0018	
(2520)	0005FD0D	000E002B	00400019	00130009	FD0D0008	002800B8	000B000A	FD0D000D	00060035	00400016	
(2560)	001C0008	FD0D000F	002500B8	0008000B	0002FD0D	000C0019	0040001B	00220010	FD0D000D	002C000D	
(2600)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(2640)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(2680)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(2720)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(2760)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(2800)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(2840)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(2880)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(2920)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(2960)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3000)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3040)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3080)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3120)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3160)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3200)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3240)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3280)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3320)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3360)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3400)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3440)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3480)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3520)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3560)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(3600)	00000000	00002756	02940144	00011C48	10770321	096D095C	09610984	00B80010	FFFF0006	FD0D000B	
(3640)	FFFF0040	002EFFFF	0012FD0D	0014FFFF	00B8000F	FFFF0009	FD0D000B	FFFF0041	002EFFFF	FD0D000B	
(3680)	0012FFFF	00B8000C	FFFF0003	FD0D000A	FFFF0040	0026FFFF	0010FD0D	0010FFFF	00B80011	00090013	
(3720)	FD0D0015	001C0040	002F0020	000EFD0D	000A002E	00B8000F	00090002	F5F50012	00270040	00260011	
(3760)	0006F5F5	000E001F	00B80009	00090002	F5F5000A	001F0040	00170019	0007F5F5	00000025	00B80008	
(3800)	00070001	F5F50010	00230040	001F0021	000FF5F5	00CA003B	00B80009	00060016	F5F50008	002A0041	
(3840)	0022001F	000CF5F5	00130023	00B8000D	FFFF0006	F5F50012	FFFF0040	0029FFFF	0013F5F5	0010FFFF	
(3880)	00B80016	FFFF0005	F5F50015	FFFF0040	0029FFFF	0015F5F5	0013FFFF	00B8000A	FFFF0005	F5F5000E	
(3920)	FFFF0040	0010FFFF	000EF5F5	0010FFFF	00B80016	FFFF0005	F5F5000E	FFFF0041	00360019	0009F5F5	
(3960)	000E0019	00B8000D	00080006	F5F50018	00220040	001F0016	000BED0D	00080023	0008001B	00160014	
(4000)	ED0D000D	00170040	0014001D	0004ED0D	00080021	00B80009	00090002	ED0D0007	002A0040	00150012	
(4040)	0008ED0D	0007001C	00B8000B	00080004	ED0D000D	00250040	00240015	0006ED0D	00060027	00B8000C	
(4080)	00080004	ED0D000C	001C0040	0029FFFF	000FEDED	0014FFFF	00B80017	FFFF0015	ED0D000B	FFFF0041	
(4120)	0024FFFF	000EED0D	000FFFFF	00B80017	FFFF0007	ED0D0012	FFFF0040	002AFFFF	000ED0D	0013FFFF	
(4160)	00B8001A	FFFF0003	ED0D000A	FFFF0040	00330015	0012ED0D	0008002D	00B80011	00080003	ED0D000E	
(4200)	00240040	002E001B	0012E5E5	00080021	00B80013	00090001	E5E5001B	00220040	001D0014	0005F5E5	
(4240)	00040023	00B8000A	000F0004	E5E50007	00280040	0010000E	0004E5E5	00140026	00080009	00070014	
(4280)	E5E50009	001E0040	001B0015	000FE5E5	000E001C	00B8000A	00030002	E5E50012	00100040	002CFFFF	
(4320)	000DE5E5	0010FFFF	00B8000F	FFFF0002	E5E5000D	FFFF00FA	0009FFFF	0006E5E5	0007FFFF	00FA0009	
(4360)	FFFF0004	E5E50010	FFFF00FA	000FFFFF	0007E5E5	0008FFFF	00FA0011	FFFF0016	E5E5001B	FFFF00FA	
(4400)	00100002	0003E5E5	0006001E	00FA0010	00040006	E5E5000D	001C00FA	00120009	0002000D	000C0015	
(4440)	00FA0014	00060009	000D000C	002400FA	000E0005	0005000D	00080016	00FA0005	00030005	000D0007	
(4480)	000A00F4	00070007	0003000D	00100012	00F4000B	00070002	000D000D	001600F4	00090018	0007000D	
(4520)	000B001A	00F40004	00050002	000D001C	001500F4	000DFFFF	0003000D	0010FFFF	00F4001D	FFFF0008	
(4560)	000D000A	FFFF00F4	000DFFFF	0009000D	000EFFFF	00F4000B	FFFF000D	000D000D	FFFF00F4	0007FFFF	

[illegible]

(6320)	00560011	05050027	0019FFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(6360)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(6400)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(6440)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	0014FFFF	FFFF0012	15150035	FFFF0014	FFFFFFFF	00051515	
(6480)	0020FFFF	0014FFFF	FFFF0014	15150028	FFFF0014	FFFF0024	000A1515	00310030	0014FFFF	00330008	
(6520)	15150027	00120014	FFFF002B	00101515	00300007	0014FFFF	004A0008	1010004A	00160014	FFFF0049	
(6560)	00081010	00480000	0014FFFF	00450010	1010005B	00190014	FFFF005A	00071010	00500017	00240001	
(6600)	00500004	10100068	00150024	00020053	00081010	00530015	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	
(6640)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	
(6680)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	
(6720)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	
(6760)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	
(6800)	25250067	000F0024	00020069	00092525	00790010	00240001	00630006	25250075	00160034	00100084	
(6840)	0009A525	008A002B	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	
(6880)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	
(6920)	0000FFFF	00033535	006BFFFF	00540000	FFFF0004	35350063	FFFF0054	0000FFFF	00063535	000700FF	
(6960)	00540000	FFFF0008	35350058	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	
(7000)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	
(7040)	009A0007	00540040	00370004	303000B8	00000054	00000030	00063030	00000000	00540000	00480003	
(7080)	303000B0	000F0014	FFFF0065	000E1010	00390010	0014FFFF	00770008	1010004A	00220014	FFFF0078	
(7120)	00081010	00400027	00240001	FFFF0001	1010003A	FFFF0024	0000FFFF	00021010	0051FFFF	00240000	
(7160)	FFFF0002	10100050	FFFF0024	0000FFFF	00051010	0040FFFF	00240001	FFFF0005	1010003A	FFFF0024	
(7200)	0004FFFF	00061010	0038FFFF								

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY				INPUT RETRIES	
				PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
4	46	47	7212	0	0	0	0	3	3

EOJ DUMP STOPPED AFTER FILE 4 # OF PERMANENT READ ERRORS 0

START TIME 08/07/79 14:40:51 STOP TIME 08/07/79 14:42:18

ESA-GEOS 1

ACTIVE PLASMA RESONANCE

77-029A-05B SPMS-00601

THIS DATA SET HAS BEEN RESTORED. ORIGINALLY IT CONTAINED THREE 9-TRACK, 1600 BPI TAPES, WRITTEN IN EBCDIC. THERE IS ONE RESTORED TAPE. THE STANDARD LABEL, WHICH WAS FILE ONE ON THE D033816, WAS REMOVED. THE DR TAPE IS A 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI. THE ORIGINAL TAPES WERE CREATED ON AN IBM 360 COMPUTER AND WERE RESTORED ON THE MRS SYSTEM. THE DR AND DS NUMBER ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR005272	DS005272	D033816	1	07/28/77 - 07/29/77
		D034071	2-3	07/28/77 - 07/29/77
		D032363	4-5	12/02/77 - 12/12/77

REQ. AGENT

VJP

RAND NO.

RD1032

ACQ. AGENT

MJT

ESA-GEOS-1

ACTIVE PLASMA RESONANCE

77-029A-05B

This data set catalog consists of 3 data tapes. The tapes are 9 track, 1600 BPI, EBCDIC with 2 files each. The tapes were created on an IBM 360 computer.

Time span is as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-32363	C-20206	12/02/77 - 12/12/77
D-33816	C-20592	07/28/77 - 07/29/77
D-34071	C-20653	07/28/77 - 07/29/77

Summary: The purpose of this study was to determine the effect of a 12-week, low-intensity, supervised walking program on the physical and psychological health of older adults. The study was conducted in a community-based setting. The participants were 60 older adults (mean age = 72.5 years) who were recruited from a local senior center. The participants were divided into two groups: a control group (n = 30) and an intervention group (n = 30). The control group continued with their usual activities, while the intervention group participated in a supervised walking program. The program consisted of three sessions per week, each lasting 30 minutes. The walking speed was set at a pace that was comfortable for the participants. The study was conducted over a 12-week period. The physical health of the participants was assessed using a series of tests, including a 6-minute walk test, a 400-meter walk test, and a 10-meter walk test. The psychological health of the participants was assessed using a series of questionnaires, including the Geriatric Depression Scale (GDS), the Geriatric Anxiety Inventory (GAI), and the Geriatric Symptom Scale (GSS). The results of the study showed that the intervention group had significantly better physical and psychological health than the control group at the end of the 12-week period. The 6-minute walk test results showed that the intervention group had a significantly higher distance walked (mean = 312.5 meters) compared to the control group (mean = 287.5 meters). The 400-meter walk test results showed that the intervention group had a significantly higher time taken to complete the walk (mean = 10.5 minutes) compared to the control group (mean = 9.5 minutes). The 10-meter walk test results showed that the intervention group had a significantly higher time taken to complete the walk (mean = 1.5 minutes) compared to the control group (mean = 1.2 minutes). The GDS results showed that the intervention group had a significantly lower score (mean = 15.5) compared to the control group (mean = 18.5). The GAI results showed that the intervention group had a significantly lower score (mean = 12.5) compared to the control group (mean = 15.5). The GSS results showed that the intervention group had a significantly lower score (mean = 10.5) compared to the control group (mean = 13.5). The results of this study suggest that a supervised walking program can improve the physical and psychological health of older adults.

TAPES - 23X

2. *Staphylococcus aureus*

[illegible]

$\frac{1}{\sqrt{\pi}}$	$\frac{1}{\sqrt{\pi}}$	$\frac{1}{\sqrt{\pi}}$	$\frac{1}{\sqrt{\pi}}$	$\frac{1}{\sqrt{\pi}}$
$\frac{1}{\sqrt{\pi}}$	$\frac{1}{\sqrt{\pi}}$	$\frac{1}{\sqrt{\pi}}$	$\frac{1}{\sqrt{\pi}}$	$\frac{1}{\sqrt{\pi}}$

ESA-GEOS 1

LS FILTERBANK DATA ON TAPE

77-029A-06B SPMS-00377

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in Binary. There is one restored tape. The standard label, which was file one on the D033815, was removed. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on a 6600 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005896	DS005896	D033815	1 - 4	07/28/77 - 07/29/77
		D032335	5 - 8	12/01/77 - 12/12/77

REQ. AGENT

VJP

RAND NO.

RD0974

ACQ. AGENT

WHW

ESA-GEOS-1

LS FILTERBANKS DATA

77-029A-06B

This data set catalog consists of 2 data tapes. The tapes are 9 track, 1600 BPI, Binary and are multifiled. The tapes were created on a CDC 6600 computer.

Time span is as follows:

<u>D#</u>	<u>C#</u>	<u>FILES</u>	<u>TIME SPAN</u>
D-32335	C-20184	4	12/01/77 - 12/12/77
D-33815	C-20591	5	07/28/77 - 07/29/77

SUPPORTIVE CNFT/CRPE ISSY-LES-MOULI FARM

NO. OF TAPES: 1

DESCRIPTION OF THE TAPE * GEOS1 IS FILT2 DARK DATA * 2.0.10.10 * PAGE 1

GENERAL DESCRIPTION PAGE 1

1800 B.P.T. * 9 TRACKS
ONE RECORD PER BLOCK
SIZE OF BLOCK (POSITION RECORD) 241

TAPES

TAPES MARK

DATA FIRST FILE * 100 BLOCKS * ALASKA

APPROX. TIME : DEC. 1. 1977 FROM 16.55 TO 19.20 HP

TAPES MARK

DATA SECOND FILE * 517 BLOCKS * ODEWALL

APPROX. TIME : DEC. 2. 1977 FROM 01.33 TO 04.57 HP

TAPES MARK

DATA THIRD FILE * 343 BLOCKS * ODEWALL

APPROX. TIME : DEC. 11. 1977 FROM 23.55 TO DEC. 12. 1977 06.17 HP

TAPES MARK

TAPES MARK

ALMOST ALL DATA ARE POS. AND NEG. INTEGERS
ONLY IN SLOW AUXILIARY DATA ARE NEGATIVE
BINARY INTEGERS WRITTEN IN 2-BYTE OR 4-BYTE
LET M=-9 . IF M TAKES ONE BYTE THEN M=255-0267 .

M = GIC

CO: - data set processing code name.

E. PORTENHEVE CNET/CRPE ISSY-LES-MOULINEAUX

21 OF SEPTEMBER 1978

DESCRIPTION OF THE TAPE " GEOS1 LS FILTERBANK DATA . R.GENDRIN " . PAGE 2

LABEL

PAGE 1

LABEL

(1234567890123456789012345678901234567890)

OFFSET	LENGTH (BYTES)	DESCRIPTION
1	75	75 ENCODIC CHARACTERS :
		GEOS1 LS FILTERBANK DATA . R.GENDRIN CNE
		T/CRPE ISSY-LES-MOULINEAUX FRANCE .
76	2385	NON SIGNIFICATIVE

--- 2460 BYTES TOTAL ---

21 OF SEPTEMBER 1978

DESCRIPTION OF THE TAPE " GEOS1 LS FILTERBANK DATA . R. GENDRIN " . PAGE 3

DESCRIPTION OF ONE BLOCK PAGE 1

CONTENTS OF ONE RECORD :

OFFSET	LENGTH (BYTES)	DESCRIPTION
1	60	SLOW AUXILIARY DATA (ONE FOR 64 LSF)
61	150 (1)	4 LS-FORMAT UNIT
211	150 (2)	4 LS-FORMAT UNIT
361	150 (3)	4 LS-FORMAT UNIT
511	150 (4)	4 LS-FORMAT UNIT
661	150 (5)	4 LS-FORMAT UNIT
811	150 (6)	4 LS-FORMAT UNIT
961	150 (7)	4 LS-FORMAT UNIT
1111	150 (8)	4 LS-FORMAT UNIT
1261	150 (9)	4 LS-FORMAT UNIT
1411	150 (10)	4 LS-FORMAT UNIT
1561	150 (11)	4 LS-FORMAT UNIT
1711	150 (12)	4 LS-FORMAT UNIT
1861	150 (13)	4 LS-FORMAT UNIT
2011	150 (14)	4 LS-FORMAT UNIT
2161	150 (15)	4 LS-FORMAT UNIT
2311	150 (16)	4 LS-FORMAT UNIT

--- 2460 BYTES TOTAL ---

DESCRIPTION OF THE TAPE " GEOSI LS FILTERBANK DATA - R. GENDRIN " PAGE 4

SLOW AUXILIARY DATA PAGE 1

OFFSET	LENGTH (BYTES)	DESCRIPTION
1	4	LOW-SPEED FORMAT COUNTER OF THE FIRST LS FORMAT TO WHICH THE BLOCK REFERS (ALWAYS DIVISIBLE BY 64)
5	4	MODIFIED JULIAN DAY (1.1.1977 = 9862)
9	4	MILLISECONDS OF DAY OF RISE OF FIRST BIT OF FORMAT
13	4	MEAN DURATION OF AN LS FORMAT IN MICROSECONDS
17	4	SPARE
21	2	CYCLE FREQUENCY IN HERTZ
23	2	SPARE

SATELLITE POSITION

(ROTATING GEOCENTRIC EQUATORIAL COORDINATES)

25	2	LATITUDE , INTEGER -90 DEG. , UNITS OF HUNDREDTH DEG.
27	2	LONGITUDE , INTEGER -180 DEG. , UNITS OF HUNDREDTH DEG.
29	2	DISTANCE FROM CENTRE OF EARTH , UNITS OF 10 KM.

SATELLITE ATTITUDE (VON COORDINATES)

31	2	V / DIRECTION COSINES OF THE SPIN
33	2	O / AXIS NORMALISED TO 10000
35	2	H /

OTHER QUANTITIES

37	2	V / DIRECTION COSINES OF THE
39	2	O / MAGNETIC DIRECTION IN THE
41	2	H / SYSTEM NORMALISED TO 10000
43	2	V / DIRECTION COSINES OF THE
45	2	O / DIRECTION OF THE SUN
47	2	H / CENTRE OF THE EARTH
		/ SYSTEM NORMALISED TO 10

IF : VON COORDINATES ARE REFERRED TO THE GEOGRAPHIC AXIS OF THE EARTH , NOT TO IT GEOMAGNETIC AXIS .

F. PORTENETIVE CNET/CRPE ISSY-LES-MOULINEAUX

21 OF SEPTEMBER 1973

DESCRIPTION OF THE TAPE " GEOS1 LS FILTERBANK DATA . R. GENDRIN " . PAGE 5

SLOW AUXILIARY DATA PAGE 2

49	2	ANGLE BETWEEN THE 2 LINES EARTH-CENTRE TO SATELLITE AND SUN TO EARTH-CENTRE IN HUNDREDTH OF DEG. (I.E. ECLIPSE AT ZERO ANGLE)
51	2	SPARE
		VELOCITY OF SATELLITE

53	2	LATITUDE/HOUR , SEE OFFSET NO 25
55	2	LONGITUDE/HOUR , SEE OFFSET NO 27
57	2	DISTANCE/HOUR , SEE OFFSET NO 29
59	2	SPARE

--- 60 BYTES TOTAL ---

F. PORTENIEVE CNET/CRPE ISSY-LES-MOULINEAUX

21 OF SEPTEMBER 1978

DESCRIPTION OF THE TAPE " GEO51 LS FILTERBANK DATA . R. GENDRIN " . PAGE 6

CONTENTS OF ONE 4 LS-FORMAT UNIT PAGE 1

OFFSET	LENGTH (BYTES)	DESCRIPTION	LS-FORMAT (0-3)
1	4	FORMAT COUNTER OF THE FIRST LS FORMAT WITHIN THE 4 LS FORMATS	
5	2	GYROFREQUENCY IN HZ	0
7	1	R01A / VALUES OF PARAMETER	/ 0
8	1	R01A / R01A , SAMPLED 0	/ 0
9	1	R01A / TIMES DURING THE	/ 0
10	1	R01A / FIRST LS FORMAT	/
11	1	R02A	0
12	1	R02A	0
13	1	R02A	0
14	1	R02A	0
15	1	R03A	0
16	1	R03A	0
17	1	R03A	0
18	1	R03A	0
19	1	R04A	0
20	1	R04A	0
21	1	R04A	0
22	1	R04A	0
23	1	R05A	0
24	1	R05A	0
25	1	R05A	0
26	1	R05A	0
27	1	R11A	0
28	1	R11A	0
29	1	R11A	0
30	1	R11A	0
31	1	R12A	0
32	1	R12A	0
33	1	R12A	0
34	1	R12A	0
35	1	R13A	0
36	1	R13A	0
37	1	R13A	0
38	1	R13A	0
39	1	R14A	0
40	1	R14A	0
41	1	R14A	0
42	1	R14A	0

E. PORTENEUVE CNET/CRPE ISSY-LES-MOULINEAUX

21 OF SEPTEMBER 1978

DESCRIPTION OF THE TAPE " GEOS1 LS FILTERBANK DATA . R. GENDRIN " . PAGE 7

CONTENTS OF ONE 4 LS-FORMAT UNIT PAGE 2

43	1	B01A / VALUES OF PARAMETER / 1	
		/ B01A SAMPLED 4 TIMES /	
		/ IN THE SECOND LSF /	
			
47	1	B02A	1
			
51	1	B03A	1
			
55	1	B04A	1
			
59	1	B05A	1
			
63	1	B11A	1
			
67	1	B12A	1
			
71	1	B13A	1
			
75	1	B14A	1
			
79	1	B01A / VALUES OF PARAMETER / 2	
		/ B01A SAMPLED 4 TIMES /	
		/ IN THE THIRD LSF /	
			
83	1	B02A	2
			
87	1	B03A	2
			
91	1	B04A	2
			
95	1	B05A	2
			
99	1	B11A	2
			
103	1	B12A	2
			
107	1	B13A	2
			
111	1	B14A	2
			

E. PORTENEUVE CNFT/CRPE ISSY-LES-MOULINEAUX

21 OF SEPTEMBER 1978

DESCRIPTION OF THE TAPE " GEOS1 LS FILTERBANK DATA . R.GENDRIN " . PAGE 8

CONTENTS OF ONE 4 LS-FORMAT UNIT PAGE 3

115	1	B01A / VALUES OF PARAMETER / 3	
		/ B01A SAMPLED 4 TIMES /	
		/ IN THE FOURTH LSF /	
	-	-----	-
119	1	B02A	3
	-	-----	-
123	1	B03A	3
	-	-----	-
127	1	B04A	3
	-	-----	-
131	1	B05A	3
	-	-----	-
135	1	B11A	3
	-	-----	-
139	1	B12A	3
	-	-----	-
143	1	B13A	3
	-	-----	-
147	1	B14A	3
149	1	B14A	3
151	1	B14A	3
153	1	B14A	3

--- 150 BYTES TOTAL ---

MEANING OF THE DIFFERENT PARAMETERS :

B01A	OUTPUT OF FILTERBANK EY	0.2 - 0.6 KHZ
B02A	OUTPUT OF FILTERBANK EY	0.6 - 1.2 KHZ
B03A	OUTPUT OF FILTERBANK EY	1.2 - 2.5 KHZ
B04A	OUTPUT OF FILTERBANK EY	2.5 - 5.0 KHZ
B05A	OUTPUT OF FILTERBANK EY	5.0 - 10.0 KHZ
B11A	OUTPUT OF FILTERBANK BX	0.2 - 0.6 KHZ
B12A	OUTPUT OF FILTERBANK BX	0.6 - 1.2 KHZ
B13A	OUTPUT OF FILTERBANK BX	1.2 - 2.5 KHZ
B14A	OUTPUT OF FILTERBANK BX	2.5 - 5.0 KHZ

DUMP OF TAPE X-209

INPUT TAPE X-209 ON MS1
DATA INPUT H9 NF 2 FL 2 2 1

D-33816

FILE 1 RECORD 1 LENGTH 27BYTES
(0) 40F2F2F6 F7F6E2C3 40404040 40404040 40404040 40404040 404000FILE INPUT DATA RECORDS MAX. READ ERROR SUMMARY INPUT RETRIES
RECS. INPUT SIZE PERM ZERO B SHORT UNDEF. #RECS. TOTAL#
1 1 1 27 0 0 0 0 0 0FILE 2 RECORD 1 LENGTH 540BYTES
(0) 40F2F1F2 F7F7F1F0 F0F1F7F7 F6F940F1 F3F3F540 F5F1F0F7 F3F4F340 F2F1F2F7 F74040F1 40F4F4F4
(40) F240F5F3 F3F540F5 F1F0F3F4 F7F340F2 F1F2F7F7 4040F140 F4F1F4F6 40F7F3F3 F540F5F1 F3F3F3F1
(80) F540F2F1 F2F7F7F1 F0F0F1F7 F7F6F940 F1F3F3F5 40F5F1F2 F9F3F5F9 40F2F1F2 F7F74040 F140F4F4
(120) F0F040F5 F3F3F540 F5F1F2F5 F5F7F540 F2F1F2F7 F7F1F0F0 F1F2F7F3 F540F1F3 F3F540F5 F4F6F9F3
(160) F2F540F2 F1F2F7F7 4040F140 F4F1F8F8 40F5F3F3 F540F5F4 F6F4F5F0 F940F2F1 F2F7F740 40F140F4
(200) F1F4F640 F5F3F3F5 40F5F4F8 F5F4F0F7 40F2F1F2 F7F7F1F0 F0F1F3F6 F2F340F1 F3F3F540 F6F9F0F8
(240) F3F9F840 F2F1F2F7 F74040F1 40F2F0F7 F340F2F3 F3F540F6 F9F3F1F3 F6F040F2 F1F2F7F7 F1F0F040
(280) F6F5F1F5 40F1F3F3 F540F7F3 F7F14040 F140F2F1 F2F7F740 40F140F2 F9F6F140 F7F3F3F5 40F7F3F7
(320) F240F3F3 40F2F1F2 F7F7F1F0 F0F1F2F1 F4F240F1 F3F3F540 F7F9F7F6 F6F3F040 F2F1F2F7 F74040F1
(360) 40F2F9F6 F140F1F3 F3F540F7 F9F7F4F9 F9F640F2 F1F2F7F7 4040F140 F2F6F6F5 40F0F3F3 F540F8F0
(400) F0F1F3F9 F840F2F1 F2F7F7F1 F0F040F5 F6F2F740 F1F3F3F5 40F8F0F2 F2F5F5F4 40F2F1F2 F7F74040
(440) F140F2F6 F6F540F0 F3F3F540 F8F0F2F3 F4F1F440 F2F1F2F7 F7F1F0F0 F1F7F7F6 F940F1F3 F3F540F8
(480) F0F4F140 F4F440F2 F1F2F7F7 4040F140 F2F6F6F5 40F0F3F3 F540F8F0 F4F5F4F3 F040F2F1 F2F7F7F1
(520) F0F0F1F1 F5F5F040 F1F3F3F5 40F8F0F6 F4F8F6F6FILE 2 RECORD 2 LENGTH 540BYTES
(0) 40F2F1F2 F7F74040 F140F2F6 F6F540F0 F3F3F540 F8F0F6F7 F4F4F640 F2F1F2F7 F74040F1 F1F1F6F9
(40) F840F1F3 F3F540F8 F0F9F3F6 F7F640F2 F1F2F7F7 4040F140 F1F7F7F7 40F7F3F3 F540F8F3 F5F1F1F6
(80) F840F2F1 F2F7F7F1 F0F040F7 F1F0F840 F1F3F3F5 40F8F3F7 F1F6F3F6 40F2F1F2 F7F74040 F140F2F3
(120) F6F940F7 F3F3F540 F8F3F7F3 40F1F240 F2F1F2F7 F74040F1 40F2F7F8 F340F2F3 F3F540F8 F6F8F3F3
(160) F9F440F2 F1F2F7F7 F1F3F040 F6F8F1F1 40F1F3F3 F540F8F7 F0F7F4F7 F440F2F1 F2F7F740 40F140F1
(200) F6F5F840 F5F3F3F5 40F8F7F0 F740F4F4 40F2F1F2 F7F7F1F0 F0F1F3F6 F2F340F1 F3F3F540 F8F7F9F3
(240) F5F6F040 F2F1F2F7 F74040F1 40F1F4F8 F040F0F3 F3F540F8 F7F9F740 F8F640F2 F1F2F7F7 F1F0F0F1
(280) F0F9F5F8 40F1F3F3 F540F8F8 F1F6F3F5 F040F2F1 F2F7F740 40F140F2 F5F1F740 F5F3F3F5 40F8F8F1
(320) F840F7F0 40F2F1F2 F7F7F1F0 F0F1F5F9 F9F340F1 F3F3F540 F8F8F3F6 F9F0F440 F2F1F2F7 F74040F1
(360) 40F6F2F1 F940F6F3 F3F540F8 F8F3F9F7 F4F240F2 F1F2F7F7 4040F140 F6F2F1F9 40F0F3F3 F540F8F8
(400) F6F1F7F5 F840F2F1 F2F7F740 40F140F6 F2F1F940 FCF3F3F5 40F8F8F8 F3F7F7F4 40F2F1F2 F7F74040
(440) F140F6F2 F1F940F0 F3F3F540 F8F9F0F5 F7F9F040 F2F1F2F7 F7F1F0F0 F2F6F0F6 F240F1F3 F3F540F8
(480) F9F2F240 F4F440F2 F1F2F7F7 4040F140 F6F2F1F9 40F0F3F3 F540F8F9 F2F7F8F0 F640F2F1 F2F7F7F1
(520) F0F040F7 F9F9F640 F1F3F3F5 40F8F9F4 F9F3F0F6FILE 2 RECORD 25 LENGTH 216BYTES
(0) F1F2F1F2 F7F7F1F0 F0F1F9F2 F5F040F1 F3F4F5F2 F5F6F4F8 F1F8F3F1 F2F1F2F7 F74040F1 40F5F3F3
(40) F140F7F3 F4F5F2F5 F6F5F2F2 F2F5F1F2 F1F2F7F7 4040F140 F5F6F2F7 40F7F3F4 F5F2F5F9 F9F0F6F3
(80) F9F1F2F1 F2F7F7F1 F0F0F2F0 F1F3F940 F1F3F4F5 F2F5F9F8 F6F4F2F5 F1F2F1F2 F7F74040 F140F5F8
(120) F6F440F5 F3F4F5F2 F5F9F7F5 F2F4F5F1 F2F1F2F7 F74040F1 40F5F6F2 F740F7F3 F4F5F2F6 F0F1F2F6
(160) F5F5F1F2 F1F2F7F7 F1F0F0F2 F4F5F8F1 40F1F3F4 F5F2F6F0 F0F7F1F5 F1F1F2F1 F2F7F740 40F140F5
(200) F6F2F740 F4F3F4F5 F2F6F0F1 F2F6F5F5FILE INPUT DATA RECORDS MAX. READ ERROR SUMMARY INPUT RETRIES
RECS. INPUT SIZE PERM ZERO B SHORT UNDEF. #RECS. TOTAL#
2 25 26 540 0 0 0 0 0 0

EOJ DUMP STOPPED AFTER FILE 2 # OF PERMANENT READ ERRORS 0

START TIME 10/24/78 15:29:14 STOP TIME 10/24/78 15:29:33

\$\$

PASS IN MS5

D-34071
7/28/77-7/29/77

INPUT TAPE X-398 ON MS2
DATA INPUT H9 NF 2 FL 1 1 0 SR 2 LAST 1

FILE 1 RECORD 1 LENGTH 27BYTES
(0) F9F9F9F9 F9F9E2C3 40404040 40404040 40404040 40404040 40404040

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY				INPUT RETRIES	
				PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
1	1	1	27	0	0	0	0	0	0

FILE 2 RECORD 4 LENGTH 162BYTES
(0) F2F940F7 F7F7F1F0 F0F6F1F8 F9F740F1 F2F0F9F6 F5F1F6F0 4040F0F2 F940F7F7 F7F1F6F1 F7F0F4F4
(40) F040F1F2 F0F9F6F5 F4F0F040 40F0F2F9 40F7F7F7 F1F0F0F7 F0F0F0F0 40F1F2F0 F9F0F5F6 F4F04040
(80) F0F2F940 F7F7F7F1 F0F0F6F4 F0F0F040 F1F2F0F9 F6F5F8F8 F04040F0 F2F940F7 F7F7F1F0 F0F0F0F0
(120) F0F040F1 F2F0F9F6 F6F6F0F0 4040F0F2 F940F7F7 F7F1F6F0 F8F1F0F1 F040F1F2 F0F9F6F7 F5F0F140
(160) 40F0

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY				INPUT RETRIES	
				PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
2	4	5	540	0	0	0	0	0	0

EOJ DUMP STOPPED AFTER FILE 2 # OF PERMANENT READ ERRORS 0

START TIME 08/07/79 14:32:47 STOP TIME 08/07/79 14:33:06

ESA-GEOS 1

ULF DATA ON TAPE

77-029A-06C SPMS-00152

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in EBCDIC. There is one restored tape written in ASCII. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on a 7600 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005881	DS005881	D032359	1 - 4	12/02/77 - 12/12/77

REQ. AGENT
VJP

SAND NO.
RD1032

ACQ. AGENT
MJT

ESA-GEOS

ULF DATA ON TAPE

77-029A-06C

This data set consists of 1 data tape. The tape is 9 track,
1600 BPI, EBCDIC with 4 files of data. The tape was created on
a CDC 7600 computer.

Time span is as follows:

<u>D#</u>	<u>C#</u>	<u>FILE #</u>	<u>TIME SPAN</u>
D-32359	C-20205	1	12/02/77
		2	12/11/77 - 12/12/77
		3	12/02/77
		4	12/11/77

DIGITAL MAGNETIC TAPE FOR CDAW - GEOS S-300 ULF DATA

n° 00433

I - PHYSICAL CHARACTERISTICS

Make and model number of the computer used to produce the tape :

CDC 7600 - scope 2

created September 27, 1978

number of tracks : 9

recording density : 1600 pbi

recording parity : ODD

recording mode : EBCDIC

II - STRUCTURE

number of files : 4, separated by E.O.F., 2 E.O.F. at the end of the tape

number of End Of File (E.O.F.) : 5

physical record size, logical record size, number of record, specification of logical record format, see table 1.

File	Number of records	Physical record size (octets)	Logical record size (character)	Specification of logical record format
1	706	2073	2073	I8, I2, I8, 512 I4, I4, I3 (2073 characters)
2	618	2073	2073	idem File 1
3	801 $(\frac{706 + 6}{8} \times 9)$	8 consecutive records of size 2720, plus 1 record of size 2688 record number $\neq 9n$: size = 2720 record number = $9n$: size = 2688 n = 1, 2....801		record number $\neq 9n$: I8, I2, I8, 384 I7, 7 I2 (2720 characters) record number = $9n$: 384 I7 (2688 characters) n = 1, 2...801
4	702 $(\frac{618 + 6}{8} \times 9)$	idem File 3 but n = 1, 2...702		idem File 3 but n = 1, 2....702

Table 1 : characteristics of Files

III - COMMENTS

1/ File number 1

Telemetry data of december 2nd for B_x , B_z ULF waveforms - corrected by the gain and with spin modulation removed - (from approximately 1 H 13mn54s to 9 H 51mn 17s UT). Sampling frequency : $F_e = 5.814$ Hz (corresponding to an average over 4 points originally given by T/M).

Each record corresponds to 44s of data (32 Low Speed Formats).

Each of 706 records can be read by the Fortran instruction :

Read 1, NF, NJ, MS, IBX, IBZ, ITHETA, IDW

1 format (I8, I2, I8, 5I2I4, I4, I3)

with :

NF = number of the low speed format

NJ = number of the day of december 1977

MS = millisecond of the day at the beginning of the 44s record

IBX (256) = 256 values of the B_x component

IBZ (256) = 256 values of the B_z component

The values $B_{x,z}$ are found in volt by the formula :

$$B_{x,z} \text{ (volt)} = (IBX,Z/10000) - 0.5$$

The physical value of $B_{x,z}$ is deduced from the voltage by the formula :

$$B(\gamma) = A.f B(\text{volt})$$

where $A = 0.015$ when f is
expressed in Hz

ITHETA = value, in degree, of the angle between the spin axis and the static magnetic field $\vec{B}_0$

IDX = value, in gamma, of the perpendicular component B_0 of the static magnetic field $\vec{B}_0$ in the xy plane of the satellite.

2. File number 2

Telemetry data of december 11th and 12th (from approximately december 11th at 23 H 56 mn 53 s UT to december 12th at 7 H 29 mn 40 s).

Characteristics are like File number 1, but there are 618 records.

3/ File number 3

Consecutive spectra for december 2nd for the right and left circular components and the parallel component z .

Each spectrum is computed on 44s time, when $\delta f = 0.0227$ Hz.

There are $89 \times 9 = 801$ logical records. Logical records do not have the same structure, but can be grouped by 9 : 8 consecutive spectra and the mean spectrum of the 8 consecutive spectra.

a/ structure of the logical records of the 8 spectra

These records can be read by the Fortran instruction :

Read 1, NF, NJ, MS, IBL, IBR, IBZ

BIL, BIR, BIP, B2PER, B3PER, B2PAR, B3PAR

1 format (I8, I2, I8, 384I7, 7I2)

NF = number of the low speed format

NJ = number of the day of december 1977

MS = millisecond of the day at the beginning of the 44s record

IBL (128) = 128 values of the B_L spectrum

IBR (128) = 128 values of the B_R spectrum

IBZ (128) = 128 values of the B_Z spectrum

the first value corresponds to $f = 0$ Hz

the second value corresponds to $f = \delta f = 0.0227$ Hz

the 128th value corresponds to $f = 127 \delta f = 2.882$ Hz

The physical values B_L, B_R, B_Z are found in γ^2/Hz by the formula

$$B_{LRZ} = 10^{-8} IB_{LRZ}$$

BIL, BIR, BIP, B2PER, B3PER, B2PAR, B3PAR are integrated spectra over certain ranges of frequencies

BIL = power of the left mode between 0.18 and 1.5 Hz

BIR = " " right mode " " " "

BIP = " " parallel signal " " " "

B2PER = " " left + right mode between 1.5 and 5 Hz

B3PER = " " " " " 5. and 11. Hz

B2PAR = " " parallel signal " 1.5 and 5 Hz

B3PAR = " " " " " 5. and 11. Hz

these values are given in decibels

The physical values BP are found in γ^2 by the formula

$$\text{Log BP} = \frac{1}{10} (B - 60)$$

b/ structure of the logical record of the mean spectrum

This record can be read by the Fortran instruction :

Read 1, IBLM, IBRM, IBZM

1 format (384I7)

IBLM (128) = 128 mean values of the 8 preceding spectra for the left mode

IBRM (128) = 128 " " " 8 " " " right mode

IBZM (128) = 128 " " " 8 " " " parallel mode

4°/ File number 4

Consecutive spectra of december 11th and 12th. The characteristics are like File 3, but there are $78 \times 9 = 702$ records.

IV REMARKS

- a/ All the records are consecutive, records of the telemetry data (wave forms) correspond to the records of the spectra, except the insertion of a mean spectrum every 8 normal spectra.
- b/ In case of telemetry loss, records are made with all the values equal to zero, except for the number of the day and the millisecond of the day at the beginning of the 32 low speed formats of the records.
- c/ The number of records of file 1 and 2 are not divisible by 8. To keep the same structure, the last group of 8 records for file 3 and 4 are completed by 6 records made with zero values to have an integer multiple of 8 records :

file 1 : 706 records file 3 : $(\frac{706 + 6}{8}) \times 9$ records

file 2 : 618 records file 4 : $(\frac{618 + 6}{8}) \times 9$ records

d/ total size (bytes)

file 1 :	706 x 2073	=	1 4 6 3 5 3 8
file 2 :	618 x 2073	=	1 2 8 1 1 1 4
file 3 :	89 x(8 x 2720 + 2688)	=	2 1 7 5 8 7 2
file 4 :	78 x(8 x 2720 + 2688)	=	1 9 0 6 9 4 4
	total		6 8 2 7 4 6 8

TOTAL SIZE : 6.82 MB

DUMP OF TAPE X-211

INPUT TAPE X-211 ON MS1
DATA INPUT H9 NF 4 FL 4 1 1

D-32359

2SA-6805

F1 12/02/77

F2 12/11-12/12/77

F3 12/02/77

F4 12/11/77

FILE 1 RECORD 1 LENGTH 2073BYTES

(0)	F2F1F1F5	F7F0F9F2	F4F240F4	F4F3F4F1	F2F0F5F0	F2F6F5F0	F4F1F5F0	F5F6F5F0	F6F5F5F0	F7F5F5F0
(40)	F7F6F5F0	F8F5F5F0	F8F9F5F0	F8F9F5F0	F8F7F5F3	F8F0F5F0	F7F3F5F0	F6F1F5F0	F5F1F5F0	F3F3F5F0
(80)	F1F9F5F0	F0F2F4F9	F8F9F4F9	F7F2F4F9	F5F7F4F9	F4F4F4F9	F3F5F4F9	F2F5F4F9	F1F7F5F0	F0F9F5F0
(120)	F0F6F5F0	F0F8F5F0	F0F7F5F0	F0F3F5F0	F0F3F5F0	F0F3F5F0	F0F2F4F9	F9F3F4F9	F9F9F4F9	F9F6F4F9
(160)	F9F7F4F9	F9F6F4F9	F9F6F4F9	F9F6F4F9	F9F5F4F9	F9F4F4F9	F9F4F4F9	F9F6F4F9	F9F6F4F9	F9F2F5F0
(200)	F0F1F5F0	F0F1F5F0	F0F2F5F0	F0F3F5F0	F0F6F5F0	F1F0F5F0	F0F7F5F0	F1F0F5F0	F0F9F5F0	F1F2F5F0
(240)	F1F3F5F0	F1F4F5F0	F1F5F5F0	F1F7F5F0	F1F6F5F0	F1F6F5F0	F1F3F5F0	F1F3F5F0	F1F1F5F0	F0F8F5F0
(280)	F0F5F5F0	F0F5F5F0	F0F2F4F9	F9F5F4F9	F9F9F5F0	F0F1F4F9	F9F8F5F0	F0F0F4F9	F9F7F4F9	F9F5F4F9
(320)	F9F4F4F9	F9F5F4F9	F9F8F5F0	F0F0F5F0	F0F0F5F0	F0F1F5F0	F0F3F5F0	F0F5F5F0	F0F5F5F0	F0F4F5F0
(360)	F0F7F5F0	F0F6F5F0	F0F7F5F0	F0F7F5F0	F1F0F5F0	F1F2F5F0	F0F9F5F0	F1F1F5F0	F1F3F5F0	F1F2F5F0
(400)	F1F2F5F0	F1F2F5F0	F1F4F5F0	F1F1F5F0	F0F8F5F0	F1F1F5F0	F0F9F5F0	F0F7F5F0	F0F2F4F9	F9F9F5F0
(440)	F0F0F5F0	F0F0F4F9	F9F8F4F9	F9F6F4F9	F9F7F4F9	F9F8F4F9	F9F7F4F9	F9F4F4F9	F9F5F4F9	F9F6F4F9
(480)	F9F6F5F0	F0F0F5F0	F0F0F5F0	F0F1F5F0	F0F4F5F0	F0F6F5F0	F0F8F5F0	F0F9F5F0	F1F2F5F0	F1F1F5F0
(520)	F1F4F5F0	F1F4F5F0	F1F4F5F0	F1F7F5F0	F1F8F5F0	F1F8F5F0	F1F8F5F0	F1F6F5F0	F1F7F5F0	F1F5F5F0
(560)	F1F2F5F0	F1F1F5F0	F1F0F5F0	F0F6F5F0	F0F0F5F0	F0F6F5F0	F0F4F5F0	F0F2F5F0	F0F0F4F9	F9F8F4F9
(600)	F9F8F4F9	F9F7F4F9	F9F8F4F9	F9F7F4F9	F9F7F4F9	F9F7F4F9	F9F6F4F9	F9F7F4F9	F9F8F5F0	F0F2F5F0
(640)	F0F2F5F0	F0F4F5F0	F0F6F5F0	F0F7F5F0	F0F8F5F0	F1F3F5F0	F1F4F5F0	F1F7F5F0	F1F6F5F0	F1F8F5F0
(680)	F1F9F5F0	F1F7F5F0	F1F6F5F0	F1F6F5F0	F1F8F5F0	F1F6F5F0	F1F6F5F0	F1F8F5F0	F1F5F5F0	F1F3F5F0
(720)	F0F6F5F0	F0F8F5F0	F0F7F5F0	F0F5F5F0	F0F3F5F0	F0F2F5F0	F0F2F5F0	F0F1F5F0	F0F1F5F0	F0F0F4F9
(760)	F9F8F5F0	F0F0F4F9	F9F8F4F9	F9F8F4F9	F9F6F5F0	F0F0F5F0	F0F4F5F0	F0F5F5F0	F0F6F5F0	F0F4F5F0
(800)	F0F8F5F0	F1F1F5F0	F1F3F5F0	F1F4F5F0	F1F4F5F0	F1F5F5F0	F1F6F5F0	F1F8F5F0	F1F8F5F0	F1F7F5F0
(840)	F1F6F5F0	F1F8F5F0	F1F5F5F0	F1F3F5F0	F1F3F5F0	F0F5F5F0	F1F4F5F0	F1F0F5F0	F1F1F5F0	F0F8F5F0
(880)	F0F6F5F0	F0F5F5F0	F0F3F5F0	F0F3F5F0	F0F1F4F9	F9F9F4F9	F9F9F4F9	F9F7F4F9	F9F8F4F9	F9F9F4F9
(920)	F9F9F5F0	F0F1F5F0	F0F3F5F0	F0F4F5F0	F0F4F5F0	F0F8F5F0	F0F9F5F0	F1F3F5F0	F1F4F5F0	F1F4F5F0
(960)	F1F7F5F0	F2F0F5F0	F2F1F5F0	F2F1F5F0	F2F3F5F0	F2F1F5F0	F2F4F5F0	F2F1F5F0	F2F1F5F0	F1F8F5F0
(1000)	F2F0F5F0	F1F0F5F0	F1F5F5F0	F1F5F5F0	F1F3F5F0	F0F9F5F0	F0F9F5F0	F0F4F5F0	F0F2F5F0	F0F0F5F0
(1040)	F0F1F5F0	F0F5F5F0	F0F2F5F0	F0F3F5F0	F0F6F5F0	F0F3F5F0	F0F5F5F0	F0F6F5F0	F0F3F5F0	F0F7F5F0
(1080)	F0F4F5F0	F0F5F5F0	F0F6F5F0	F0F5F5F0	F0F3F5F0	F0F2F5F0	F0F0F5F0	F0F4F5F0	F0F2F5F0	F0F2F5F0
(1120)	F0F4F5F0	F0F5F5F0	F0F6F5F0	F0F2F5F0	F0F5F5F0	F0F6F5F0	F0F9F5F0	F0F3F5F0	F1F0F5F0	F0F3F5F0
(1160)	F0F4F5F0	F0F6F5F0	F0F6F5F0	F0F7F5F0	F0F7F5F0	F0F8F5F0	F0F5F5F0	F0F3F5F0	F0F9F5F0	F0F7F5F0
(1200)	F0F8F5F0	F0F9F5F0	F0F7F5F0	F1F2F5F0	F1F1F5F0	F0F5F5F0	F0F7F5F0	F0F5F5F0	F0F8F5F0	F0F8F5F0
(1240)	F0F8F5F0	F0F9F5F0	F0F8F5F0	F1F0F5F0	F1F1F5F0	F1F0F5F0	F1F1F5F0	F0F9F5F0	F0F7F5F0	F0F7F5F0
(1280)	F1F1F5F0	F1F1F5F0	F0F7F5F0	F0F7F5F0	F0F5F5F0	F0F6F5F0	F0F7F5F0	F0F6F5F0	F0F6F5F0	F0F5F5F0
(1320)	F0F3F5F0	F0F5F5F0	F0F6F5F0	F0F8F5F0	F0F5F5F0	F0F3F5F0	F0F4F5F0	F0F3F5F0	F0F3F5F0	F0F1F5F0
(1360)	F0F3F5F0	F0F4F5F0	F0F1F5F0	F0F1F5F0	F0F2F4F9	F9F9F5F0	F0F2F5F0	F0F1F5F0	F0F0F5F0	F0F3F5F0
(1400)	F0F3F5F0	F0F2F5F0	F0F0F4F9	F9F9F4F9	F9F8F4F9	F9F9F4F9	F9F8F5F0	F0F1F4F9	F9F9F5F0	F0F1F4F9
(1440)	F9F8F4F9	F9F7F4F9	F9F9F4F9	F9F5F5F0	F0F1F5F0	F0F2F4F9	F9F9F4F9	F9F8F5F0	F0F2F5F0	F0F1F4F9
(1480)	F9F7F5F0	F0F0F4F9	F9F9F4F9	F9F9F5F0	F0F3F4F9	F9F8F4F9	F9F7F4F9	F9F7F4F9	F9F7F4F9	F9F4F4F9
(1520)	F9F6F4F9	F9F5F4F9	F9F5F4F9	F9F5F5F0	F0F0F4F9	F9F5F4F9	F9F8F5F0	F0F1F4F9	F9F8F4F9	F9F9F4F9
(1560)	F9F7F4F9	F9F8F4F9	F9F7F4F9	F9F7F4F9	F9F8F4F9	F9F8F4F9	F9F9F4F9	F9F7F5F0	F0F0F5F0	F0F0F4F9
(1600)	F9F9F4F9	F9F5F4F9	F9F9F4F9	F9F7F4F9	F9F8F5F0	F0F0F4F9	F9F8F4F9	F9F7F4F9	F9F9F5F0	F0F1F4F9
(1640)	F9F7F4F9	F9F9F5F0	F0F4F5F0	F0F3F5F0	F0F2F5F0	F0F4F5F0	F0F6F5F0	F0F8F5F0	F0F9F5F0	F0F9F5F0
(1680)	F0F9F5F0	F0F9F5F0	F1F2F5F0	F0F9F5F0	F1F3F5F0	F1F1F5F0	F1F3F5F0	F1F0F5F0	F1F1F5F0	F1F3F5F0
(1720)	F1F1F5F0	F1F6F5F0	F1F4F5F0	F1F4F5F0	F1F2F5F0	F1F3F5F0	F1F1F5F0	F1F2F5F0	F1F3F5F0	F1F2F5F0
(1760)	F1F2F5F0	F1F6F5F0	F1F5F5F0	F1F7F5F0	F1F5F5F0	F1F6F5F0	F1F3F5F0	F1F1F5F0	F1F4F5F0	F1F2F5F0
(1800)	F1F1F5F0	F1F4F5F0	F1F6F5F0	F1F4F5F0	F1F3F5F0	F1F2F5F0	F1F1F5F0	F0F8F5F0	F0F9F5F0	F0F9F5F0
(1840)	F1F0F5F0	F0F6F5F0	F0F5F5F0	F0F3F5F0	F0F6F5F0	F0F4F5F0	F0F8F5F0	F0F3F5F0	F0F4F5F0	F0F7F5F0
(1880)	F0F4F5F0	F1F1F5F0	F1F0F5F0	F0F6F5F0	F0F4F5F0	F0F9F5F0	F0F8F5F0	F0F5F5F0	F0F5F5F0	F0F6F5F0
(1920)	F0F2F5F0	F0F4F5F0	F0F4F5F0	F0F3F5F0	F0F4F5F0	F0F2F5F0	F0F3F5F0	F0F2F5F0	F0F3F5F0	F0F3F5F0
(1960)	F0F4F5F0	F0F4F5F0	F0F8F5F0	F0F8F5F0	F0F6F5F0	F0F2F5F0	F0F3F5F0	F0F2F5F0	F0F2F5F0	F0F0F5F0
(2000)	F0F3F5F0	F0F4F5F0	F0F1F5F0	F0F3F5F0	F0F1F5F0	F0F8F5F0	F0F5F5F0	F0F3F5F0	F0F8F5F0	F0F5F5F0
(2040)	F0F7F5F0	F0F8F5F0	F0F6F5F0	F0F4F4F9	F9F7F5F0	F0F4F5F0	F0F140F1	F4F440F5	00	

FILE 1 RECORD 706 LENGTH 2073BYTES

(0)	F2F1F1F7	F9F6F5F2	40F2F3F5	F4F7F7F2	F1F0F4F9	F0F3F4F9	F1F4F4F8	F8F8F4F8	F9F3F4F8	F8F4F4F8
(40)	F9F6F4F9	F0F4F4F9	F0F2F4F9	F0F0F4F9	F2F0F4F9	F2F1F4F9	F3F1F4F9	F1F7F4F9	F2F5F4F9	F2F9F4F9
(80)	F5F4F4F9	F4F3F4F9	F3F8F4F9	F4F3F4F9	F5F0F4F9	F5F3F4F9	F4F3F4F9	F4F7F4F9	F3F7F4F9	F3F1F4F9

(	200)	F3F9F4F9	F3F6F4F9	F1F1F4F9	F4F0F4F9	F4F0F4F9	F4F3F4F9	F2F1F4F9	F2F4F4F9	F2F8F4F9	F4F3F4F9
(	240)	F5F8F4F9	F4F2F4F9	F3F2F4F9	F4F3F4F9	F3F0F4F9	F1F8F4F9	F3F6F4F9	F2F3F4F9	F2F8F4F9	F2F4F4F9
(	280)	F4F2F4F9	F4F6F4F9	F4F1F4F9	F2F4F4F9	F3F0F4F9	F2F6F4F9	F2F0F4F9	F1F9F4F9	F1F0F4F9	F1F0F4F9
(	320)	F1F5F4F9	F3F1F4F9	F2F2F4F9	F4F1F4F9	F4F1F4F9	F4F3F4F9	F3F5F4F9	F3F8F4F9	F2F7F4F9	F2F9F4F9
(	360)	F2F8F4F9	F3F0F4F9	F3F6F4F9	F4F1F4F9	F4F7F4F9	F3F6F4F9	F4F2F4F9	F3F7F4F9	F4F6F4F9	F2F4F4F9
(	400)	F3F6F4F9	F1F8F4F9	F3F0F4F9	F2F0F4F9	F2F9F4F9	F2F9F4F9	F3F3F4F9	F3F5F4F9	F4F1F4F9	F3F6F4F9
(	440)	F2F7F4F9	F4F1F4F9	F2F6F4F9	F2F9F4F9	F2F7F4F9	F3F6F4F9	F3F3F4F9	F3F3F4F9	F3F9F4F9	F5F4F4F9
(	480)	F4F1F4F9	F4F9F4F9	F3F8F4F9	F4F5F4F9	F2F8F4F9	F4F2F4F9	F4F1F4F9	F3F9F4F9	F3F0F4F9	F3F6F4F9
(	520)	F4F0F4F9	F2F5F4F9	F5F3F4F9	F3F9F4F9	F3F6F4F9	F1F9F4F9	F2F6F4F9	F3F2F4F9	F2F7F4F9	F2F1F4F9
(	560)	F4F4F4F9	F4F9F4F9	F3F9F4F9	F5F0F4F9	F4F7F4F9	F5F5F4F9	F3F3F4F9	F3F7F4F9	F3F4F4F9	F4F2F4F9
(	600)	F3F8F4F9	F2F8F4F9	F1F7F4F9	F3F0F4F9	F3F2F4F9	F4F4F4F9	F3F7F4F9	F3F2F4F9	F2F6F4F9	F2F9F4F9
(	640)	F3F4F4F9	F2F9F4F9	F3F6F4F9	F3F0F4F9	F2F4F4F9	F2F0F4F9	F3F1F4F9	F3F0F4F9	F2F0F4F9	F2F5F4F9
(	680)	F2F9F4F9	F1F8F4F9	F1F9F4F9	F1F9F4F9	F2F7F4F9	F2F5F4F9	F3F2F4F9	F5F3F4F9	F5F1F4F9	F6F1F4F9
(	720)	F4F0F4F9	F4F3F4F9	F4F8F4F9	F4F3F4F9	F3F4F4F9	F4F8F4F9	F4F2F4F9	F4F3F4F9	F4F6F4F9	F5F4F4F9
(	760)	F5F2F4F9	F4F0F4F9	F5F0F4F9	F4F1F4F9	F4F1F4F9	F2F7F4F9	F2F5F4F9	F4F0F4F9	F3F5F4F9	F3F3F4F9
(	800)	F3F9F4F9	F2F4F4F9	F3F1F4F9	F3F3F4F9	F3F4F4F9	F3F7F4F9	F2F8F4F9	F2F2F4F9	F1F6F4F9	F3F9F4F9
(	840)	F2F1F4F9	F3F2F4F9	F4F4F4F9	F6F2F4F9	F4F8F4F9	F4F9F4F9	F5F1F4F9	F5F0F4F9	F4F4F4F9	F4F0F4F9
(	880)	F4F5F4F9	F3F7F4F9	F4F1F4F9	F4F4F4F9	F5F1F4F9	F5F4F4F9	F4F8F4F9	F4F3F4F9	F4F9F4F9	F3F6F4F9
(	920)	F3F1F4F9	F4F1F4F9	F2F0F4F9	F3F4F4F9	F2F5F4F9	F1F7F4F9	F2F4F4F9	F1F6F4F9	F0F8F4F9	F1F2F4F9
(	960)	F2F3F4F9	F2F3F4F9	F0F0F4F9	F0F8F4F8	F9F6F4F8	F9F3F4F9	F1F8F4F9	F2F3F4F9	F4F1F4F9	F4F5F4F9
(	1000)	F5F1F4F9	F5F3F4F9	F4F9F4F9	F4F5F4F9	F5F9F4F9	F4F8F4F9	F4F9F4F9	F5F9F4F9	F5F5F4F9	F6F0F4F9
(	1040)	F6F1F5F0	F0F1F5F0	F0F2F5F0	F0F0F5F0	F0F0F5F0	F0F3F5F0	F0F0F5F0	F0F0F5F0	F0F0F4F9	F9F9F5F0
(	1080)	F0F1F5F0	F0F0F5F0	F0F0F5F0	F0F2F4F9	F9F9F4F9	F9F8F5F0	F0F0F4F9	F9F8F4F9	F9F6F4F9	F9F8F4F9
(	1120)	F9F9F4F9	F9F6F4F9	F9F5F4F9	F9F7F4F9	F9F9F5F0	F0F1F5F0	F0F4F5F0	F0F4F5F0	F0F1F4F9	F9F9F5F0
(	1160)	F0F1F4F9	F9F9F5F0	F0F3F5F0	F0F1F5F0	F0F0F5F0	F0F0F4F9	F9F9F4F9	F9F9F5F0	F0F1F5F0	F0F1F4F9
(	1200)	F9F9F5F0	F0F2F5F0	F0F2F5F0	F0F3F5F0	F0F4F5F0	F0F4F5F0	F0F4F5F0	F0F3F5F0	F0F3F5F0	F0F3F5F0
(	1240)	F0F3F5F0	F0F7F5F0	F0F7F5F0	F0F7F5F0	F0F6F5F0	F0F5F5F0	F0F6F5F0	F0F8F5F0	F0F7F5F0	F0F6F5F0
(	1280)	F0F5F5F0	F0F7F5F0	F0F8F5F0	F0F7F5F0	F0F6F5F0	F0F7F5F0	F0F6F5F0	F0F6F5F0	F0F5F5F0	F0F4F5F0
(	1320)	F0F3F5F0	F0F4F5F0	F0F6F5F0	F0F5F5F0	F0F6F5F0	F0F6F5F0	F1F0F5F0	F1F0F5F0	F0F8F5F0	F1F0F5F0
(	1360)	F0F9F5F0	F1F2F5F0	F0F7F5F0	F0F6F5F0	F0F5F5F0	F0F7F5F0	F0F5F5F0	F0F1F4F9	F9F7F5F0	F0F0F4F9
(	1400)	F9F7F4F9	F9F9F4F9	F9F9F5F0	F0F1F5F0	F0F1F5F0	F0F2F5F0	F0F4F5F0	F0F3F5F0	F0F0F5F0	F0F1F5F0
(	1440)	F0F2F5F0	F0F3F5F0	F0F2F5F0	F0F4F5F0	F0F2F5F0	F0F2F5F0	F0F1F5F0	F0F2F5F0	F0F3F5F0	F0F1F4F9
(	1480)	F9F9F4F9	F9F7F4F9	F9F9F5F0	F0F0F4F9	F9F9F4F9	F9F9F5F0	F0F0F4F9	F9F9F5F0	F0F0F5F0	F0F0F5F0
(	1520)	F0F0F5F0	F0F2F5F0	F0F1F4F9	F9F8F4F9	F9F7F4F9	F9F8F5F0	F0F0F4F9	F9F9F5F0	F0F0F4F9	F9F9F4F9
(	1560)	F9F8F5F0	F0F0F4F9	F9F9F5F0	F0F2F5F0	F0F3F5F0	F0F3F5F0	F0F2F4F9	F9F8F4F9	F9F8F4F9	F9F6F4F9
(	1600)	F9F6F4F9	F9F7F4F9	F9F6F5F0	F0F0F4F9	F9F8F4F9	F9F7F4F9	F9F6F4F9	F9F6F4F9	F9F6F4F9	F9F6F5F0
(	1640)	F0F0F4F9	F9F8F4F9	F9F7F4F9	F9F9F5F0	F0F0F5F0	F0F1F5F0	F0F0F5F0	F0F1F4F9	F9F8F4F9	F9F8F5F0
(	1680)	F0F0F5F0	F0F3F5F0	F0F0F5F0	F0F1F5F0	F0F1F5F0	F0F2F5F0	F0F2F4F9	F9F9F5F0	F0F1F5F0	F0F3F5F0
(	1720)	F0F3F5F0	F0F0F5F0	F0F1F5F0	F0F1F5F0	F0F4F5F0	F0F1F5F0	F0F2F5F0	F0F0F4F9	F9F8F4F9	F9F9F5F0
(	1760)	F0F4F5F0	F0F1F4F9	F9F7F4F9	F9F7F4F9	F9F9F5F0	F0F0F4F9	F9F9F4F9	F9F8F4F9	F9F9F5F0	F0F0F5F0
(	1800)	F0F0F5F0	F0F2F5F0	F0F5F5F0	F0F3F5F0	F0F1F4F9	F9F9F4F9	F9F8F4F9	F9F9F4F9	F9F6F4F9	F9F9F4F9
(	1840)	F9F8F4F9	F9F7F5F0	F0F0F5F0	F0F0F5F0	F0F3F5F0	F0F2F5F0	F0F3F5F0	F0F3F5F0	F0F5F5F0	F0F2F5F0
(	1880)	F0F2F5F0	F0F1F5F0	F0F3F5F0	F0F2F5F0	F0F1F5F0	F0F3F5F0	F0F3F5F0	F0F2F5F0	F0F4F5F0	F0F6F5F0
(	1920)	F0F4F5F0	F0F5F5F0	F0F5F5F0	F0F6F5F0	F0F6F5F0	F0F9F5F0	F0F6F5F0	F0F6F5F0	F0F7F5F0	F0F8F5F0
(	1960)	F0F6F5F0	F0F7F5F0	F0F2F5F0	F0F4F5F0	F0F3F5F0	F0F3F5F0	F0F3F5F0	F0F2F5F0	F0F1F5F0	F0F3F5F0
(	2000)	F0F3F5F0	F0F1F5F0	F0F8F5F0	F0F7F5F0	F0F5F5F0	F0F3F5F0	F0F3F5F0	F0F3F5F0	F0F0F5F0	F0F0F5F0
(	2040)	F0F0F5F0	F0F1F4F9	F9F9F4F9	F9F9F5F0	F0F0F4F9	F9F9F5F0	F0F240F1	F8F0F5F0	00	

FILE		INPUT	DATA RECORDS	MAX.	READ ERROR SUMMARY				INPUT RETRIES	
		RECS.	INPUT	SIZE	PERM	ZERO	B	SHORT	UNDEF.	#RECS. TOTAL#
1		706	707	2073	0	0	0	0	0	0
FILE	2	RECORD	1	LENGTH	2073BYTES					
(	0)	F2F1F7F8	F1F6F3F6	F1F1F8F6	F2F1F3F3	F6F1F5F0	F1F2F5F0	F1F2F5F0	F1F1F5F0	F1F2F5F0
(	40)	F1F2F5F0	F1F3F5F0	F0F9F5F0	F1F2F5F0	F1F5F5F0	F1F4F5F0	F1F5F5F0	F1F3F5F0	F1F1F5F0
(	80)	F1F1F5F0	F0F8F5F0	F1F0F5F0	F1F2F5F0	F1F2F5F0	F1F3F5F0	F1F2F5F0	F1F4F5F0	F1F1F5F0
(	120)	F1F1F5F0	F1F2F5F0	F0F9F5F0	F1F1F5F0	F1F1F5F0	F1F1F5F0	F1F2F5F0	F1F1F5F0	F0F8F5F0
(	160)	F0F7F5F0	F0F7F5F0	F0F8F5F0	F0F9F5F0	F0F9F5F0	F1F1F5F0	F1F0F5F0	F1F0F5F0	F0F5F5F0
(	200)	F0F7F5F0	F0F8F5F0	F1F0F5F0	F0F7F5F0	F0F5F5F0	F0F5F5F0	F0F6F5F0	F0F2F5F0	F0F4F5F0
(	240)	F0F5F5F0	F0F4F5F0	F0F6F5F0	F0F2F5F0	F0F1F4F9	F9F9F5F0	F0F2F5F0	F0F2F5F0	F0F3F5F0
(	280)	F0F0F5F0	F0F1F5F0	F0F1F5F0	F0F0F5F0	F0F2F5F0	F0F1F5F0	F0F3F5F0	F0F4F5F0	F0F3F5F0
(	320)	F0F6F5F0	F0F3F5F0	F0F2F5F0	F0F2F5F0	F0F1F5F0	F0F4F5F0	F0F4F5F0	F0F6F5F0	F0F5F5F0
(	360)	F9F9F4F9	F9F7F4F9	F9F6F4F9	F9F8F5F0	F0F0F5F0	F0F0F5F0	F0F1F5F0	F0F3F5F0	F0F3F4F9
(	400)	F9F9F4F9	F9F8F5F0	F0F3F5F0	F0F2F5F0	F0F4F5F0	F0F5F5F0	F0F3F5F0	F0F3F5F0	F0F0F5F0

(680)	40404040	F4F14040	404040F1	F1404040	4040F1F7	404040F2	F5404040	4040F2F2	40404040	40F3F240
(720)	F1404040	4040F1F3	40404040	40F2F940	40404040	F2F44040	40404040	F8404040	4040F1F4	40404040
(760)	40F3F040	40404040	F3F74040	404040F4	F2404040	404040F5	40404040	40F1F840	40404040	40F44040
(800)	404040F1	F8404040	404040F4	40404040	40F2F040	40404040	40F64040	40404040	F6404040	4040F1F4
(840)	40404040	40F1F340	40404040	40F44040	404040F3	F5404040	4040F1F1	40404040	4040F540	40404040
(880)	F2F04040	404040F1	F3404040	4040F1F2	4040F1F0	F2F4F140	40F7F4F0	F4F64040	F1F9F5F3	F74040F1
(920)	F6F7F2F6	404040F8	F2F8F940	4040F7F9	F1F34040	40F1F0F2	F24040F2	F4F3F4F0	404040F2	F7F9F040
(960)	4040F4F6	F3F74040	40F3F5F8	F8404040	F3F4F3F0	404040F1	F6F9F040	404040F2	F2F74040	40F1F0F2
(1000)	F7404040	F2F4F1F6	40404040	F8F3F140	404040F6	F3F94040	4040F6F1	F4404040	40F4F0F1	40404040
(1040)	F6F7F940	404040F7	F7F54040	4040F5F5	F3404040	4040F4F1	40404040	F2F9F540	404040F2	F7F14040
(1080)	4040F1F9	F2404040	40F1F0F0	40404040	F2F5F640	404040F9	F1F84040	4040F3F2	F4404040	40F1F3F5
(1120)	40404040	40F7F140	404040F1	F0F44040	404040F5	F8404040	4040F5F9	40404040	F4F6F740	40404040
(1160)	F3F24040	4040F3F3	F2404040	40F1F4F7	40404040	40F1F340	404040F1	F6F34040	4040F1F0	F8404040
(1200)	4040F3F1	40404040	F3F7F140	40404040	F5F84040	404040F1	F1404040	4040F6F5	40404040	40F3F140
(1240)	40404040	F6F14040	4040F1F3	F2404040	4040F7F9	40404040	40F3F140	40404040	F4F24040	404040F4
(1280)	F7404040	4040F8F6	40404040	40F5F140	40404040	40F84040	404040F8	F4404040	4040F3F8	40404040
(1320)	40F3F240	40404040	F2F14040	404040F5	F0404040	4040F7F8	40404040	40F1F440	40404040	40F74040
(1360)	404040F4	F9404040	4040F4F9	40404040	40F4F640	40404040	F3F24040	404040F1	F8404040	4040F8F0
(1400)	40404040	40F9F540	40404040	F4F24040	404040F4	F5404040	4040F1F6	40404040	40F1F840	40404040
(1440)	F2F14040	404040F5	F1404040	4040F9F6	40404040	40F5F640	40404040	F6F14040	404040F4	F0404040
(1480)	4040F4F0	40404040	40F1F940	40404040	F3F44040	404040F2	F6404040	4040F6F1	40404040	4040F840
(1520)	40404040	40F74040	404040F3	F5404040	4040F2F0	40404040	40F3F440	40404040	F1F54040	40404040
(1560)	F2404040	4040F1F4	40404040	40F1F640	40404040	F1F64040	404040F1	F8404040	4040F1F4	40404040
(1600)	40F1F840	40404040	F2F54040	404040F1	F1404040	404040F7	40404040	4040F340	40404040	40F54040
(1640)	40404040	F5404040	404040F5	40404040	4040F440	40404040	40F84040	404040F1	F0404040	4040F2F4
(1680)	40404040	4040F540	40404040	F1F14040	40404040	F0404040	404040F8	40404040	4040F440	40404040
(1720)	40F14040	40404040	F2404040	404040F5	40404040	40F3F240	40404040	F1F44040	404040F4	F4404040
(1760)	4040F1F4	40404040	40F1F640	40404040	F1F34040	40404040	F3404040	4040F1F5	40404040	F6F2F440
(1800)	40F3F0F3	F3F04040	F1F3F8F9	F24040F1	F8F0F8F2	4040F1F9	F5F9F340	40F1F3F8	F6F54040	F1F1F6F7
(1840)	F6404040	40F1F1F0	404040F2	F1F2F740	4040F3F8	F0F34040	40F2F0F5	F9404040	F4F0F4F5	404040F1
(1880)	F5F3F140	404040F7	F3F74040	40F3F0F4	F0404040	40F9F5F1	404040F1	F5F5F940	4040F1F1	F0F94040
(1920)	40F1F4F7	F7404040	40F1F6F3	40404040	F9F2F940	404040F2	F0F24040	4040F2F5	F8404040	40F2F9F9
(1960)	40404040	F3F3F840	404040F1	F8F74040	4040F1F5	F3404040	40F2F4F3	40404040	F1F0F840	404040F2
(2000)	F8F44040	404040F6	F8404040	40F1F0F2	40404040	F1F0F040	40404040	F7F64040	4040F1F1	F5404040
(2040)	40F1F2F2	40404040	F1F5F940	404040F2	F7F04040	4040F1F0	F8404040	4040F5F8	40404040	40F4F740
(2080)	40404040	F9F54040	404040F3	F1404040	40F1F4F8	40404040	40F6F840	40404040	F8F84040	4040F1F0
(2120)	F7404040	4040F1F8	40404040	4040F640	40404040	F4F14040	404040F3	F9404040	4040F4F4	40404040
(2160)	40F1F140	40404040	F2F44040	404040F6	F0404040	4040F2F6	40404040	40F2F040	40404040	40F54040
(2200)	404040F1	F0404040	404040F6	40404040	40F1F340	40404040	F4F44040	404040F4	F2404040	4040F2F3
(2240)	40404040	40F1F140	40404040	F1F34040	404040F2	F9404040	404040F8	40404040	40F1F040	40404040
(2280)	F2F84040	40404040	F7404040	404040F7	40404040	40F1F640	40404040	40F84040	40404040	F6404040
(2320)	4040F3F0	40404040	40F1F040	40404040	F2F74040	404040F1	F5404040	4040F1F3	40404040	4040F440
(2360)	40404040	F1F34040	40404040	F4404040	404040F5	40404040	40F1F640	40404040	40F54040	40404040
(2400)	F1404040	404040F5	40404040	4040F140	40404040	40F74040	40404040	F4404040	404040F5	40404040
(2440)	4040F640	40404040	40F34040	404040F1	F7404040	404040F9	40404040	4040F340	40404040	40F44040
(2480)	40404040	F4404040	404040F8	40404040	4040F340	40404040	40F14040	40404040	F2404040	404040F2
(2520)	40404040	4040F240	40404040	40F24040	40404040	F3404040	404040F7	40404040	4040F540	40404040
(2560)	40F44040	40404040	F4404040	404040F5	40404040	4040F240	40404040	40F44040	40404040	F8404040
(2600)	404040F5	40404040	4040F540	40404040	40F24040	40404040	F2404040	404040F3	40404040	4040F240
(2640)	40404040	40F24040	40404040	F1404040	404040F4	40404040	4040F540	40404040	40F34040	40404040
(2680)	F1404040	404040F4								

FILE	INPUT	DATA RECORDS	MAX.	READ ERROR SUMMARY				INPUT RETRIES		
	RECS.	INPUT	SIZE	PERM	ZERO	B	SHORT	UNDEF.	#RECS.	TOTAL#
4	702	703	2720	0	0	0	0	0	1	3

EOJ DUMP STOPPED AFTER FILE 4 # OF PERMANENT READ ERRORS 0

START TIME 10/24/78 15:14:56 STOP TIME 10/24/78 15:16:18

ESA-GEOS 1

ULF WAVE FORM & SPECTRA DATA

77-029A-06D SPMS-00151

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in EBCDIC. There is one restored tape written in ASCII. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on a 6600 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005852	DS005852	D034017	1 - 5	07/28/77 - 07/29/77

REQ. AGENT

VJP

RAND NO.

RD2473

ACQ. AGENT

MJT

ESA-GEOS-1

ULF WAVE FORM + SPECTRA

77-029A-06D

This data set catalog consists of 1 data tape. The tape is
9 track, 1600 BPI, EBCDIC with 5 files of data. The tape was
created on an CDC computer

Time span is as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-34017	C-20629	06/29/77

CNET-CNRS

77-0299-060

Issy-les-Moulineaux, le May 14, 1979

Dr. Robert H. MANKA
Division of Atmospheric Sciences
National Science Foundation

WASHINGTON, D.C. 20550

U.S.A.

Dear Bob,

I am sorry to inform you that, due to other commitments, I will not be able to attend CDAW-2. Therefore, you should not rely upon me as a group leader for the wave problem.

However, Dr. A. Bahnsen (DSRI) who is co-investigator on our GEOS wave data will be present, and I suggest that Dr. J. Solomon, from our institute, replace me as long as the interpretation of GEOS ULF waves is concerned. Dr. J. Solomon has done some work on high energy particle convection in conjunction with wave instabilities, and he is the right person to attend a Workshop in which emphasis is put on the global aspect of particle drift and injection.

We will contribute in the Workshop by sending both ULF and VLF data from GEOS and also data from our ground-based station of Husafell (Iceland) (which must be added to the list of stations contributing in the workshop). A preliminary description of the contents of the data is given on a separate sheet. Mike Teague's questionnaire will be answered as soon as I will have agreed with our engineers about what is feasible or not (this concerns ULF data from both GEOS and Husafell). Dr. A. Bahnsen will answer directly the questionnaire for the GEOS VLF waves, because the corresponding tape will be prepared at DSRI.

I have a remark concerning the period you have chosen for the active time (july 29 from 00.00 to 02.00). This only corresponds to the Ssc. In my opinion, you should add the period from 12.00 to 15.00 which corresponds to the largest substorm of the event and for which we have conjugated ground-GEOS measurements.

Again, I apologize for not being able to come, but I am convinced that this Workshop will be a success.

Sincerely yours,

Cc. : N. Cornilleau, S. Perraut, P. Robert (CRPE)
D. Fouassier (LGE)
A. Bahnsen (DSRI)
M. Teague (GSFC)

R. Gendrin

Encl.

PRELIMINARY ESTIMATION OF THE THREE TAPES CONTENTS

A/ Recording time

1. Recording time for GEOS

28/7 : 12.00 to 16.30 .

17.50 to 18.50 (there is a loss of telemetry between 16.30
and 17.50)

Odenwald

29/7 : 10.50 to 16.30

17.50 to 18.50 (same telemetry loss approximately)

Alaska 29/7 ~ 00.00 to 02.00

Altogether ~ 16 hours

2. Recording time for Husafell

from 28/7 (12.00) to 29/7 (24.00)

Altogether : 36 hours

B/ GEOS ULF data

77-029A-060

These will be simplified with respect to the previous Workshop. We will deliver only the power integrated in two different bandwidths (0 - 2 and 2 - 10 Hz) and for two polarizations (B_L left-handed in the plane perpendicular to the spin axis and B_Z parallel to the spin axis). Each power will be deduced from a power spectral analysis of the signal, integrated over 44sec. The contents of the tape will therefore be as follows :

LSF : Low Speed GEOS format counter of the 17th format out of the 32 over
which the spectra have been computed

NDAY : Number of the day (1 = january 1, 1977)

MILS : Millisecond in the day of the beginning of the 17th format

BL02 : Left hand power between 0 and 2 Hz (log scale)

BZ02 : Parallel power " " " " " "

BL210 : Left hand power between 2 and 10 Hz (log scale)

BZ210 : Parallel power " " " " " "

BDC : Intensity of the DC magnetic field (as measured by S331) during the
1st of the 32 formats over which the spectra have been
computed*

*Note that, because this information is available only once every 64 formats, BDC will be repeated twice, and the second time its value will correspond to the beginning of the

THETA : Angle between the spin axis and the magnetic field at
the time of the 17th format

BPER : Intensity of the component of the DC field in the plane
perpendicular to the spin axis, measured approxima-
tely in the vicinity of the 17th format*

Altogether 10 words (8 bits integer) every 44 sec ~ 105 kbits

All numbers will be integer. Conversion factors to physical quantities
will be provided.

C/ GEOS VLF data

-06B

The contents will be similar to the one provided to CDAW-1. The number of
frequency channels has not yet been defined but it will be of the order of 9.
Time resolution will be 5.5s (i.e. 4 LS formats). Including format number,
time, etc..., this will amount approximately to 12 (8 bits) words every
5.5 sec, i.e.

~ 1 Mbit

(this has to be confirmed by Dr. A. Bahnsen)

D/ HUSAFELL magnetic data

2060 CG-28D

A lot of different parameters were recorded at Husafell. However, only the
DC magnetic data (fluxgate) is easily accessible presently within such a
short time scale for preparing tapes. As people may be interested both
in the DC fluctuations and in the pulsations, we think of using the fluxgate
output and filtering ^{it} in order to obtain pulsations with periods shorter
than 352 sec. This will be done roughly by subtracting a gliding average
over 16 points (the sampling rate of this fluxgate being $1/11 \text{ sec}^{-1}$). The
tape will contain

NUM : Some kind of a format number

NDAY : number of the day

MILS : Millisecond of the beginning of the format

BH : DC magnetic field (true output of the fluxgate)

BD : " " " " " "

BZ : " " " " " "

*One must have approximately $BPER = BDC * \sin(THETA)$

BPB : Pulsations along the H axis
BPD : " " " D "
BPZ : " " " Z "

Note that these words will be 12 bits words (the accuracy of the fluxgate is $\sim 0.5 \gamma$ and the dynamic range is $\sim 2000\gamma$).

Altogether 9 (12 bits) words every 11 sec

~ 1.3 Mbit

Base lines values for the DC magnetic field will be provided as well as conversion factors.

IMPORTANT : Data B and C being given on logarithmic scale, any further averaging must be done by using a special algorithm, as was done for CDAW-1.

DUMP OF TAPE X206

77-029A-060
D-34017
6/29/79

INPUT TAPE X206 ON MS1

DATA INPUT H9 NF 5 FL 5 1 1

FILE 1 RECORD 1 LENGTH 44BYTES

(0) F1F3F2F1 F0F9F0F4 F2F0F9F4 F3F1F9F9 F0F4F3F3 FCF9F4F4 F0F1F9F2 F1F9F2F2 F1F3F2F1 F2F740F2

(40) F440F4F9

FILE 1 RECORD 368 LENGTH 44BYTES

(0) F1F3F2F2 F2F6F2F8 F2F0F9F5 F9F3F3F1 F4F9F7F8 F1F8F1F9 F2F6F7F6 F5F1F5F6 F5F3F4F2 F0F340F5

(40) F6F1F0F6

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY	INPUT RETRIES
				PERM ZERO B SHORT UNDEF.	#RECS. TOTAL#
1	368	369	44	0 0 0 0	0 0

FILE 2 RECORD 1 LENGTH 44BYTES

(0) F1F3F2F2 F6F5F1F2 F2F0F9F6 F4F6F7F5 F9F2F8F3 F6F9F0F4 F1F8F3F3 F3F0F4F2 F1F3F1F3 F3F240F4

(40) F2F1F3F3

FILE 2 RECORD 71 LENGTH 44BYTES

(0) F1F3F2F2 F8F7F5F2 F2F0F9F6 F7F7F5F8 F1F8F5F7 F1F0F1F4 F6F6F7F5 F0F1F2F2 F4F7F9F5 F4F0F1F8

(40) F0F1F3F4

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY	INPUT RETRIES
				PERM ZERO B SHORT UNDEF.	#RECS. TOTAL#
2	71	72	44	0 0 0 0	0 0

FILE 3 RECORD 1 LENGTH 44BYTES

(0) F1F3F2F7 F0F6F4F4 F2F1F0F3 F9F0F0F1 F1F7F5F3 F4F5F7F4 F0F7F6F2 F2F0F4F2 F1F5F0F1 F7F440F1

(40) F440F4F1

FILE 3 RECORD 439 LENGTH 44BYTES

(0) F1F3F2F8 F5F2F0F4 F2F1F0F5 F9F0F8F5 F5F7F3F8 F7F7F5F9 F6F1F7F6 F8F9F7F6 F8F4F0F2 F0F840F6

(40) F9F1F2F5

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY	INPUT RETRIES
				PERM ZERO B SHORT UNDEF.	#RECS. TOTAL#
3	439	440	44	0 0 0 0	0 0

FILE 4 RECORD 1 LENGTH 44BYTES

(0) F1F3F2F8 F9F0F8F8 F2F1F0F6 F4F3F8F0 F4F6F9F4 F3F4F2F4 F5F1F1F3 F9F0F7F2 F4F9F1F2 F9F640F5

(40) F0F1F3F3

FILE 4 RECORD 78 LENGTH 44BYTES

(0) F1F3F2F9 F1F5F5F2 F2F1F0F6 F7F7F7F0 F9F5F1F9 F0F8F4F4 F4F8F8F6 F5F4F5F2 F5F0F3F5 F4F0F1F8

(40) F0F1F3F4

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY	INPUT RETRIES
				PERM ZERO B SHORT UNDEF.	#RECS. TOTAL#
4	78	79	44	0 0 0 0	0 0

FILE 5 RECORD 1 LENGTH 44BYTES

(0) F1F3F2F4 F2F3F0F0 F2F0F9F8 F6F3F9F9 F2F3F6F6 F3F9F6F5 F2F8F9F2 F5F4F0F2 F0F7F9F1 F5F540F2

(40) F540F6F1

FILE 5 RECORD 164 LENGTH 44BYTES

(0) F1F3F2F4 F7F5F1F6 F2F1F040 F7F1F7F6 F5F7F2F8 F6F4F3F9 F3F7F4F6 F6F3F6F6 F7F9F540 F8F940F5

(40) F040F7F4

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY	INPUT RETRIES
				PERM ZERO B SHORT UNDEF.	#RECS. TOTAL#

ESA-GEOS 1

ELECTRIC FIELD DATA ON TAPE

77-029A-07B SPMS-00533

This data set has been restored. There were originally two 9-track, 1600 BPI tapes written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tapes were created on a 4/72 computer and the restored tapes were created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D numbers are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005432	DS005432	D034007	1 - 3	07/27/77 - 07/28/77
		D032371	4 - 5	12/02/77 - 12/12/77

REQ. AGENT

VJP

RAND NO.

RD1037

ACQ. AGENT

MJT

ESA-GEOS-1

ELECTRIC FIELD DATA ON TAPE

77-029A-07B

This data set catalog consists of 2 data tapes. The tapes are 9 track, 1600 BPI, Binary and are multifiled. The tapes were created on a ICL System 4/72 computer.

Time span is as follows:

<u>D#</u>	<u>C#</u>	<u>FILES</u>	<u>TIME SPAN</u>
D-32371	C-20204	2	12/02/77 - 12/12/77
D-34007	C-20626	3	07/27/77 - 07/28/77

Experiment S-300, DC Electric Field Measurements.

Tapes INON 3 and INON 4 contain data collected on 2 and 12 December 1977, respectively.

Components of dc electric field are given in SDB coordinate system.

- (i) the B-axis is parallel to the local dc magnetic field.
- (ii) the S-axis is perpendicular to the B-axis and lies in the plane which contains the local dc magnetic field vector and the direction of the sun; the orientation of the S-axis is so chosen that the angle which it makes with the sun direction lies between -90° and $+90^{\circ}$.
- (iii) the D-axis completes this orthogonal system of reference.

The electric field vector is assumed to be perpendicular to the dc magnetic field and E_B is therefore zero.

The components E_S and E_D are given at fixed intervals of the order of 6.9 s.

Magnetic Tape Details

Both tapes are:

9 track

1600 b.p.i.

Physical record size 1200 bytes

Logical record size 12 bytes

1 File, 2 tape marks at end

No labels except for 1 EOF label of 80 bytes at the end

Phase encoded, odd parity

Fixed blocked logical record format.

Produced on ICL System 4/72 computer (not ICL 1900)

Written unformatted.

The number of blocks (including tape marks) on tape INON 3 is 43, and on INON 4 is 35.

Included is a dump showing the number of physical blocks and the number of bytes in each block, and also a dump (in hexadecimal) of the first couple of blocks.

The formatting of the tapes is as follows:

1st record (12 bytes) : word 1 modified Julian day (4 byte integer)
 word 2 + 3 dummies

2nd + succeeding record: word 1 Time in seconds
 word 2 ES Values in millivolts/meter
 word 3 ED values " " "
 All three words in REAL * 4 IBM floating
 point format.



National Aeronautics and
Space Administration

IMS/SATELLITE SITUATION CENTER

CDAW TAPE DOCUMENTATION FORM

SECTION I. DATA SET DESCRIPTION (please print)

1. Data Set Name <i>GEOS-1 ELECTRIC FIELD AND ELECTR. DENSITY</i>		
2. Scientific Contact <i>K KNOTT</i>		3. Telephone No. or Telex No. <i>1719-82587</i>
4. Address <i>ESTEC DOMEIN WEG</i>		
5. City <i>NOORDWIJK</i>	6. State <i>HOLLAND</i>	7. ZIP Code or Country <i>2200 AG</i>
8. Programmer Contact <i>P. JONES SAME ADRESSE</i>		

SECTION II. TAPE DESCRIPTION

1. No. of Tapes Submitted <i>3</i>	2. Tape Density ☐ 800 bpi ☒ 1600 bpi
3. No. of Files (per tape) <i>1</i>	
4. No. of End of File Marks <i>3</i>	5. No. of Tracks ☐ 7 ☒ 9
6. Recording Parity <i>ODD.</i>	7. Make and Model of Computer Used to Generate Tape <i>ICL 4172.</i>
8. Are tapes written in binary, coded or both? (e.g. BCD) <i>BINARY.</i>	
9. What Floating point representation is used? (e.g. CDC 64 bit) <i>IBM 32 bit.</i>	
10. What integer representation is used? <i>TWO'S COMPLEMENT IBM 32 bit.</i>	
11. No. of Physical Records (per file) <i>See attached sheet.</i>	
12. Are original tapes to be returned? ☐ Yes ☒ No	
13. Start and Stop Time of Each File (If more space is needed, please attach.) <i>See attached sheet.</i>	

SECTION III. LOGICAL AND PHYSICAL RECORD FORMAT (please attach) ✓

SECTION IV. TO BE FILLED IN BY IMS/SSC ONLY

Date Received	CDAW No.
Programmer ID	Tape No.
Access Base	CON No.
	Date Loaded

ANNEX TO CDAW TAPE DOCUMENTATION FORM

1. Although the tapes are written on an ICL 4/72 they are similar in format to IBM 370 tapes, the only difference being in byte 54 of the HDR1 label which can be 0, 1 or 3 on an IBM tape but which is always blank (40 hex) on ICL. Apart from this the tapes are standard label with a VOL1, HDR1 and tape mark at the beginning, and a tape mark, EOF1 and double tape mark at the end.

2. The tapes are written in binary with the following DCB parameters:

RECFORM = FIXBLK

BLKSIZE = 1600

RECSIZE = 16

3. The first record of data contains the modified Julian Day (1950) as a full word integer (4 bytes) followed by three full words containing zeroes as padding.

The next 64 records contain the 256 floating point single precision values of the LIN calibration table.

Each of the following records contains the following four full words:

Word 1	Time of day in	seconds	(floating point)
Word 2	Es value in millivolts	/meter	(floating point)
Word 3	Ed value in millivolts	/meter	(floating point)
Word 4	LIN value as raw data		(Integer)

The LIN value lies in the range 0 - 255. To calibrate this value (as elect./cm^2) add one to it and select the corresponding position in the calibration table.

e.g. Calibration table in array CLIN

DIMENSION CLIN (256)

LIN = LIN + 1

Calibrated value = CLIN(LIN)

DUMP OF TAPE X-207

INPUT TAPE X-207 ON MS1
DATA INPUT H9 NF 2 FL 2 1 1

12-32371

ESA-GEOS-1

12/01/77 - 12/12/77

FILE	1	RECORD	1	LENGTH	1200BYTES
(0)	000027D5	00000000	00000000	44115700	0086B2F0
(40)	00B8C9D1	41158640	44116C00	00A7D220	41127712
(80)	403BE52E	44118000	41190F32	4014044C	44118700
(120)	44119500	4117E7D8	BF4FD676	44119C00	41162B42
(160)	411854A6	BFE37F6C	4411B100	4115C0C5	4013AE74
(200)	404726EB	4411C500	411ECBDE	403507A1	4411CC00
(240)	4411DA00	41143569	3FBF5E57	4411E100	4116CF1F
(280)	4115FDE4	0013A966	4411F500	41149422	BFDAD944
(320)	402A42CD	44120A00	4117ACF6	BF9BC52A	44121100
(360)	44121F00	40C122D7	4014566A	44122600	40CE8C1D
(400)	40E0C8F3	4019567F	44123A00	41109F0D	40493695
(440)	4055CC05	44124F00	41134DF5	401D2893	44125600
(480)	44126300	40FD3574	3FCD6B57	44126A00	41133DF6
(520)	40AD4796	402B674C	44128200	4053F0C5	4016F254
(560)	4061D72A	44129600	4068CC91	4043F68F	44129D00
(600)	4412AB00	40647881	401D7BA0	4412B200	402DB6C5
(640)	40473518	401DB944	4412C700	3F6BC176	4021D0F6
(680)	3FB470A4	4412DB00	403AF7EF	403B5A43	4412E200
(720)	4412F000	4118815B	401EB073	4412F700	41162D6D
(760)	4114BEA7	402A2885	44130B00	411321C9	401468E8
(800)	BF3DCFE2	44132000	4112FC7F	4044D399	44132700
(840)	44133500	41151E5C	402D4A37	44133B00	411575D4
(880)	41159E8B	401B4707	44135000	41163A4E	3DCB5E80
(920)	40148C7D	44136500	4112BC69	3FD76AC6	44136C00
(960)	44137900	4117DC28	405E7258	44138000	4118539E
(1000)	41178C1D	409414B8	44139500	411750C6	40867572
(1040)	406F8593	4413AA00	4114A822	40631802	4413B000
(1080)	4413C000	40F3876D	402BFD89	4413C600	40EB3A14
(1120)	411D6D2A	401300AC	4413DF00	411061F3	401A515F
(1160)	4082BACC	4413F700	BF5B3C3F	409F18D2	4413FE90

FILE	1	RECORD	39	LENGTH	156BYTES
(0)	44856900	40B98691	409E24FC	44857000	00136183
(40)	40B445DF	4089BD98	44858500	BFE97267	40A0BE96
(80)	40FDCCF2	4485A700	4063006F	4036CCF4	4485AE00
(120)	4485C200	40544411	411A264B	4485C900	003197E7

FILE	INPUT	DATA RECORDS	MAX.	READ ERROR SUMMARY				INPUT RETRIES	
	RECS.	INPUT	SIZE	PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
1	39	40	1200	0	0	0	0	0	0

FILE	2	RECORD	1	LENGTH	1200RYTES
(0)	000027D5	00000000	00000000	424D0000	40A71AE2
(40)	41119302	40ACBFF0	42620000	40E84FDC	405AE2FF
(80)	404A6BA6	42760000	41102EE8	408E827E	427D0000
(120)	428B0000	4085634B	407CF97C	42920000	40CCEFF7
(160)	411339CD	40C9CD29	42A70000	41188059	40BD67BB
(200)	40F0E705	42BB0000	40D36130	40987D5E	42C20000
(240)	42D00000	3F366520	4024B3A7	42D70000	3FF59B90
(280)	001F778F	4028B0DB	42EB0000	0043F4D5	40348461
(320)	407C963D	431C0000	41102F1D	407FA7B3	43107000
(360)	43115000	4111820F	40864EA5	4311B000	41133462
(400)	41118E26	409C13D4	43130000	409A1BAC	40721B42
(440)	40481429	43145000	40627556	40D3ADD5	4314C000
(480)	43159000	411388F0	4113422E	43160000	4119B99C
(520)	411C68EA	41109FD4	43175000	41155116	40D01DB1
(560)	40DBD1BA	4318A000	4112F9CF	40D0C00C	43190000

(680)	40CF126B	431CE000	411C6A99	409730A2	431D5000	411E9C53	40C01069	431DC000	411A9671	4114CF9A
(720)	431E3000	4117F2E8	40E5C244	431EA000	4113A578	41124524	431F1000	41155E22	41118F8C	431F8000
(760)	41158CAA	40F2B4F3	431FF000	4113A29E	40ED3D7D	43205000	411895CF	41142106	4320C000	4111C3FE
(800)	411164AD	43213000	411328A5	40F86528	4321A000	4111E525	407AB082	43221000	4111CA1E	40CAC837
(840)	43228000	4113CE2D	40C2C86C	4322F000	41110BE4	40B9E8CD	43236000	4112B8C6	4112AE39	4323C000
(880)	4114AD3F	4110F640	43243000	40AC40B1	4093F361	4324A000	40B164A4	405C076A	43251000	40EA4FA4
(920)	40286904	43258000	40AB336C	4060385E	4325F000	4111559A	408A2A7F	43266000	41135A62	406F6DF4
(960)	4326D000	4113635B	4092D4E1	43273000	411692C0	40A9726E	4327A000	41133757	40663B8D	43281000
(1000)	4111351A	408556C4	43288000	41126BDB	404EB55E	4328F000	40B1E6FF	4049E3E4	43296000	40BB4ED6
(1040)	403F4FC3	4329D000	40A2659B	BFA6FC08	432A4000	40E0891F	3FAF5F08	432AB000	411084E6	4048FB7C
(1080)	432B1000	41113E3E	3FD9DCC8	432B8000	41143D80	402E1D3D	432BF000	40FEB4BE	3F67B053	432C6000
(1120)	40B0C636	401A2D42	432CD000	41128B32	BF475D80	432D4000	41167D1E	C04649B6	432DC000	4120F55A
(1160)	C041C396	432E6000	41225A3B	C04C5D1A	432ED000	41229514	40346D7E	432F3000	4121A720	408ABC11

FILE	2	RECORD	31	LENGTH	1032	BYTES					
(0)	44671500	3F1DA6A3	402DA664	44671C00	BE319A78	CC4B74AA	44672300	40407851	C0696EF7	44672A00	
(40)	C02C62F1	C0857350	44673100	401408B8	C051150C	44673800	C019275D	C0473A67	44673F00	C02CCDAF	
(80)	403C0B58	44674600	406F5868	C01361B0	44674C00	411072A5	C06403ED	44675300	41186FE9	C11B1BF2	
(120)	44675A00	411E4D9A	C11B788F	44676100	411A3D8E	C12241CD	44676800	41194814	C0D5496C	44676F00	
(160)	41156316	C04B2FAE	44677600	40FED853	4052152F	44677D00	41111816	40344569	44678400	40B62D01	
(200)	BFE3D6F7	44678A00	40A42FF3	C0BEE6A2	44679100	40E46800	C093C93C	44679800	40E533BE	C11567DD	
(240)	44679F00	41162549	C0DA0297	4467A600	4117AC2C	CC45C481	4467AD00	41170B52	BF60EC03	4467B400	
(280)	411AF22C	BFE242DA	4467BB00	4117087B	3FC87988	4467C100	4116F98B	C08EE54C	4467C800	41192EA3	
(320)	C07A393E	4467CF00	41124B37	C0EE7A99	4467D900	40DDDB071	C0AA7047	4467E000	41124297	C0398D82	
(360)	4467E700	41197210	404CAA34	4467F000	411369F6	40159F14	4467F700	411669D8	C0BA4691	44680300	
(400)	4117DA16	C1145C39	44680A00	411A60E3	C1118FCA	44681100	411857FE	C0A74814	44681B00	41137A5C	
(440)	C09E4DE1	44682500	4115866A	C0C80988	44682B00	4111F104	C118147B	44683200	412286F1	C119F7A0	
(480)	44683D00	40C41213	C0EFA165	44684400	40814061	4023D188	44684B00	40D4A6AC	C027D0CC	44685200	
(520)	407B99A1	40F7BE87	44685900	406C0CCF	411416BA	44686000	40A1D0ED	401E2F03	44686700	40AD30E2	
(560)	4056C253	44686D00	40628BFF	40F1A865	44687400	40B6E93D	40662487	44687B00	41105C97	407B10AB	
(600)	44688200	408D666C	40292D1C	44688900	40A28EFD	40D4F2C1	44689D00	41166264	4063A1D8	44689700	
(640)	40DE44AE	40DFB43F	44689E00	40DD06198	41101AD9	4468A400	41149CF9	40562A42	4468AB00	40D5C16B	
(680)	40B9E582	4468B200	401DDF82	4118348D	4468B900	409C9FD9	411FC89E	4468C000	4041D7AA	4128F533	
(720)	4468C700	402DA983	41288B4C	4468CE00	40EB7D00	40D9AACF	4468D500	40DD0DEAC	40937792	4468DC00	
(760)	4082D958	40AA7316	4468E200	40C1C174	402C5041	4468E900	4082E92F	411BD6AA	4468F000	40933833	
(800)	41157A71	4468F700	4077CF9D	41231BE1	4468FE00	40E6E2FE	41141A33	44690500	40654454	411BD919	
(840)	44690C00	40711831	4119D788	44691300	41149960	4118C307	44691900	4038D3D8	411C6768	44692000	
(880)	40B3C597	4118D4FE	44692700	411C0E59	41174CBF	44692E00	4119AEB6	411B9CF2	44693500	41174ED8	
(920)	4111C81D	44693C00	40B06409	402633DB	44694300	3E919588	404CED38	44694A00	C05AD57A	408FE111	
(960)	44695000	408A0F9C	C043E787	44695700	411D9875	CC3D210B	44695E00	41206307	41168F36	44696500	
(1000)	411BF1CF	4118D9FA	44696C00	41284F1A	409F2126	44697300	411DB1C4	411F68D9			

FILE	INPUT	DATA RECORDS	MAX.	READ ERROR SUMMARY				INPUT RETRIES	
	RECS.	INPUT	SIZE	PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
2	31	32	1200	0	0	0	0	0	0

E0J DUMP STOPPED AFTER FILE 2 # OF PERMANENT READ ERRORS 0

START TIME 10/20/78 13:00:34 STOP TIME 10/20/78 13:00:51

ESA-GEOS 1

DC MAGNETIC FIELD DATA

77-029A-09B

SPMS-00150

THIS DATA SET HAS BEEN RESTORED. IT ORIGINALLY CONTAINED THREE 9-TRACK, 1600 BPI TAPES WRITTEN IN BINARY. THERE IS ONE RESTORED TAPE. THE DR TAPE IS A 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI. TIME SPANS COULD NOT BE VERIFIED. THE ORIGINAL TAPES WERE CREATED ON AN IBM 370 COMPUTER AND WERE RESTORED ON AN IBM 9021 COMPUTER. THE DR AN DS NUMBER ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR005344	DS005344	D035102	1	07/24/76 - 09/10/76
		D035102	2	09/09/76 - 09/09/76
		D032694	3	01/12/77 - 01/23/77
		D023937	4	01/13/77 - 01/22/77

REQ. AGENT
VJP

RAND NO.
RD1447
RD 2450

REQ. AGENT
MJT

ESA-GEOS-1

DC MAGNETIC FIELD DATA

77-029A-09B ✓

This data set catalog consists of 3 data tapes. The tapes are 1600 BPI, Binary, 9 track with ~~1 file of data.~~ The data is generated on an IBM 370 computer.

The time span is in a Modified Julian Day (MJD) which is 1977 12/01/77

Time span is as follows:

<u>ID</u>	<u>CH</u>	<u>Files</u>	<u>TIME</u>
D-32694	C-20292	1	12/01/77 - 12/12/77
D-32937	C-20296	1	12/02/77 - 12/11/77
D-35102	C-20705	2	7/24/77

X-209 out X-210



CONSIGLIO NAZIONALE DELLE RICERCHE
LABORATORIO DI RICERCA E TECNOLOGIA
PER LO STUDIO DEL PLASMA NELLO SPAZIO
VIA G. GALILEI - CASELLA POSTALE 27 - 00044 FRASCATI

November 1, 1978
FRASCATI
TELE (06) 0423801-2-3-4-5
TELEDEX: SPAZIO 00480

Our Ref SG/ 01129
EA/ac

Dr. James I. VETTE
Code 601
NASA/Goddard Space Flight Center
Greenbelt, Maryland 20771
U.S.A.

Dear Dr. Vette,

Please find herewith enclosed a magnetic tape containing GEOS-1 S 33 data for the following dates:

1. Dec. 77 (from 01⁰⁰ to 10⁰⁰ UT)
2. Dec. 77 (from 01³⁰ to 10⁰⁰ UT)
3. Dec. 77 (from 01⁰⁰ to 10⁰⁰ UT)
- 10 Dec. 77 (from 00⁰⁰ to 11⁰⁰ UT)
- 12 Dec. 77 (from 00⁰⁰ to 11⁰⁰ UT)

Note that some of these tapes are not fully complete. You may wish to check the data on the tapes. You may also wish to check the data on the tapes.

Please, do not hesitate to contact us by telex if you have any questions about the tape.

Best regards,

Recording density = 1600 b.p.i.

Number of tracks = nine

Number of physical records = 406 (812 logical records).

Length of logical records = 6184 bytes

Each logical record contains data relative to 64 consecutive telemetry formats, as follows:



INPUT TAPE X-402 ON MS2
DATA INPUT H9 NF 2 FL 2 1 1

ESA-GEOS-1

7/29/77

77-029A-09B

FILE 1 RECORD 1 LENGTH 12368BYTES

(0)	009D8583	27281017	2A3654B	36A6001E	0111146A	FFFCF97B	264D137C	E1CF0F5F	00000000	00000000
(40)	005EFFBA	0194005E	FFBB0194	0050FFBB	0195005E	FFBC0195	005EFFBB	0196005E	FFBB0197	005EFFBA
(80)	0197005E	FFBB0197	005EFFBB	0197005E	FFBB0198	005FFFBB	0199005F	FFBB0199	005EFFBB	019A005E
(120)	FFBA019A	005EFFBA	019B005E	FFBB019C	005EFFBA	019D005E	FFBB019D	005EFFBA	019E005E	FFBA019E
(160)	005EFFBA	019F005F	FFBA019F	005EFFBB	01A0005E	FFBA01A1	005EFFBB	01A2005E	FFBA01A1	005EFFBA
(200)	01A2005E	FFBA01A2	005EFFBA	01A3005D	FFBA01A2	0050FFBA	01A3005E	FFBA01A3	0050FFBA	01A2005D
(240)	FFBA01A2	0050FFBA	01A2005D	FFBA01A1	0050FFBA	01A1005D	FFBB01A1	0050FFBA	019F005D	FFBA019F
(280)	0050FFBA	019D005D	FFB9019D	0050FFBA	019B005D	FFBA019A	0050FFBA	019A005C	FFBA0199	0050FFBA
(320)	0198005D	FFBA0196	0050FFBB	0195005D	FFBA0195	005EFFBA	0195005E	FFBA0194	005EFFBB	0194005D
(360)	FFBB0194	005EFFBB	0193005E	FFBA0193	005EFFBB	0193005D	FFBB0193	0050FFBB	0193005E	FFBB0194
(400)	005EFFBB	0194005D	FFBB0193	0050FFBB	0193005D	FFBB0194	0050FFBB	0194005D	FFBB0194	0050FFBB
(440)	0195005D	FFBA0194	0050FFBA	0195005D	FFBB0196	0050FFBB	0196005E	FFBB0197	005EFFBA	0197005D
(480)	FFBB0197	005FFFBB	0197005E	FFBB0198	005EFFBB	0198005E	FFBB0199	0050FFBB	0199005D	FFBA019A
(520)	005EFFBA	019B005E	FFBA019C	005EFFBA	019C005D	FFBA019D	005EFFBA	019D005E	FFBA019E	005EFFBA
(560)	019F005F	FFBA019F	005EFFBA	01A0005E	FFBA01A1	005EFFBA	01A1005F	FFBA01A2	005EFFBA	01A2005E
(600)	FFBA01A2	005EFFBB	01A3005E	FFB901A2	005EFFBA	01A3005E	FFBA01A3	005EFFBA	01A2005D	FFBA01A2
(640)	0050FFBA	01A2005D	FFBA01A1	0050FFBA	01A1005C	FFBA01A0	0050FFB9	019F005C	FFBA019E	0050FFBA
(680)	019D005C	FFBA019C	0050FFBA	019B005C	FFB9019A	0050FFB9	019A005C	FFB90199	0050FFB9	0198005D
(720)	FFBA0197	0050FFBA	0195005D	FFBA0195	0050FFBA	0195005D	FFBA0194	0050FFBA	0194005E	FFBB0193
(760)	0050FFBB	0193005D	FFBA0192	0050FFBA	0192005E	FFBB0193	0050FFBB	0194005D	FFBB0193	0050FFBB
(800)	0193005D	FFBB0193	0050FFBB	0193005D	FFBB0194	0050FFBA	0194005D	FFBA0193	0050FFBB	0194005D
(840)	FFBA0195	0050FFBB	0195005C	FFBB0195	005EFFBA	0196005D	FFBA0197	0050FFBA	0196005D	FFBA0197
(880)	0050FFBA	0197005D	FFBB0197	005EFFBB	0198005E	FFBB0199	005EFFBA	0199005D	FFB9019A	0050FFBA
(920)	019A005D	FFBB019B	0050FFBA	019C005E	FFBA019D	0050FFBA	019E005E	FFBA019E	0050FFBA	019F005E
(960)	FFBA01A0	005EFFB9	01A1005D	FFBA01A1	005EFFBA	01A2005D	FFBA01A1	005EFFBA	01A2005E	FFBA01A2
(1000)	0050FFBA	01A3005D	00000000	0050FFBA	01A3005D	FFBA01A3	0050FFBA	01A2005D	FFBB01A2	0050FFBA
(1040)	01A2005D	FFBA01A1	0050FFBA	01A1005C	FFBA01A1	0050FFBA	019F005C	FFB9019E	0050FFBA	019D005D
(1080)	FFBA019D	0050FFBA	019C005B	FFBA019B	0050FFB9	019A005C	FFB90199	0050FFBA	0198005C	FFBA0198
(1120)	0050FFBA	0196005C	FFBA0195	0050FFBA	0195005C	FFBA0194	0050FFBA	0194005D	FFBB0194	0050FFBA
(1160)	0193005C	FFBA0193	0050FFBA	0193005D	FFBB0193	0050FFBB	0193005D	FFBA0193	0050FFBB	0193005C
(1200)	FFBA0193	0050FFBA	0193005D	FFBA0194	0050FFBB	0194005C	FFBA0194	0050FFBA	0194005C	FFBB0194
(1240)	0050FFBB	0195005D	FFBB0195	0050FFBA	0196005D	FFBB0197	0050FFBA	0197005C	FFBA0197	0050FFBA
(1280)	0198005D	FFBA0198	0050FFBA	0198005D	FFBA0199	005EFFBA	019A005D	FFB9019A	0050FFBA	019A005D
(1320)	FFBA019C	005EFFB9	019D005D	FFBA019D	0050FFB9	019D005E	FFB9019E	005EFFB9	019F005D	FFB901A0
(1360)	005EFFBA	01A1005E	FFBA01A1	0050FFBA	01A1005E	FFBA01A2	0050FFB9	01A2005C	FFB901A2	0050FFB9
(1400)	01A3005D	FFBA01A2	0050FFBA	01A2005D	FFBA01A3	0050FFBB	01A3005D	FFBA01A2	0050FFBA	01A2005C
(1440)	FFBA01A1	0050FFBA	01A1005C	FFBA01A1	0050FFBA	019F005C	FFBA019F	0050FFBB	019E005C	FFBA019D
(1480)	0050FFBA	019C005B	FFBA019B	0050FFB9	019A005C	FFB90199	0050FFB9	0198005C	FFBA0196	0050FFBA
(1520)	0196005C	FFBA0195	0050FFBA	0195005D	FFBA0195	0050FFBA	0194005D	FFBA0193	0050FFBA	0193005C
(1560)	FFBA0193	0050FFBA	0193005D	FFBB0193	0050FFBA	0193005C	FFBA0193	0050FFBA	0193005B	FFBA0193
(1600)	0050FFBA	0193005C	FFBA0194	0050FFBB	0194005C	FFBB0194	0050FFB9	0194005C	FFBA0194	0050FFBA
(1640)	0194005D	FFBA0195	0050FFBA	0195005D	FFBA0196	0050FFB9	0197005D	FFBA0197	0050FFBA	0197005D
(1680)	FFBB0197	0050FFBA	0198005D	FFBA0199	0050FFBA	019A005D	FFB9019A	005EFFBA	019A005E	FFB9019B
(1720)	0050FFBA	019C005D	FFBA019D	0050FFB9	019D005D	FFB9019E	0050FFBA	019E005D	FFB9019F	005EFFBA
(1760)	01A0005D	FFBA01A1	0050FFB9	01A1005D	FFB901A1	0050FFB9	01A1005C	FFB901A2	0050FFB9	01A2005C
(1800)	FFB901A1	0050FFBA	01A2005C	FFB901A3	0050FFB9	01A2005C	FFB901A2	0050FFBA	01A1005C	FFB901A1
(1840)	0050FFBA	01A1005C	FFB901A0	0050FFB9	019F005C	FFBA019F	0050FFB9	019E005C	FFB9019C	0050FFBA
(1880)	019B005B	FFB9019B	0050FFB9	019A005B	FFB80199	0050FFB9	0198005B	FFB80197	0050FFB9	0196005B
(1920)	FFBA0195	0050FFB9	0194005B	FFBA0194	0050FFBA	0193005C	FFB90193	0050FFBA	0193005C	FFB90193
(1960)	0050FFBB	0193005D	FFBB0193	0050FFBB	0194005D	FFBB0194	0050FFBB	0193005D	FFBB0193	0050FFBB
(2000)	0193005D	FFBB0193	0050FFBB	0194005D	FFBB0193	0050FFBB	0194005D	FFBB0194	0050FFBB	0195005D
(2040)	FFBB0195	0050FFBB	0195005C	FFBB0197	0050FFBB	0197005D	FFBB0197	0050FFBB	0197005E	FFBB0198
(2080)	005EFFBB	0198005E	FFBB0199	005EFFBB	0199005E	FFBB0199	0050FFBB	019A005E	FFBB019B	005EFFBA
(2120)	019C005D	FFBA019D	005EFFBA	019D005E	FFBA019E	005EFFBB	019F005E	FFBB019F	005EFFBB	01A1005E
(2160)	FFBB01A1	005EFFBA	01A1005E	FFBB01A2	005EFFBA	01A2005E	FFBB01A2	005EFFBB	01A2005D	FFBB01A3
(2200)	0050FFBB	01A2005D	FFBB01A2	0050FFBB	01A2005D	FFBB01A1	0050FFBB	01A2005D	FFBB01A2	0050FFBB
(2240)	01A1005C	FFBA01A1	0050FFBB	019F005B	FFBB019E	0050FFBB	019E005C	FFBA019C	0050FFBA	019E005B

(2360)	0192005D	FFBC0192	005CFFBC	0193005D	FFBB0193	005CFFBB	0193005D	FFBB0193	005CFFBC	0193005D	FFBB0193
(2400)	FFBB0194	005DFFBB	0194005C	FFBB0194	005DFFBB	0195005D	FFBB0194	005DFFBB	0195005C	FFBB0195	
(2440)	005CFFBB	0195005C	FFBB0196	005DFFBB	0196005D	FFBB0196	005CFFBC	0197005C	FFBB0198	005DFFBC	
(2480)	0197005D	FFBB0199	005DFFBC	0199005D	FFBC0199	005DFFBB	019A005D	FFBB019B	005DFFBB	019C005E	
(2520)	FFBB019D	005DFFBA	019D005E	FFBB019E	005DFFBB	019E005E	FFBB019F	005EFFBB	01A0005D	FFBA01A1	
(2560)	005DFFBB	01A1005D	FFBB01A2	005DFFBB	01A1005D	FFBB01A2	005CFFBA	01A2005D	FFBA01A3	005DFFBA	
(2600)	01A2005C	FFBA01A2	005CFFBB	01A3005C	FFBB01A2	005CFFBB	01A2005C	FFBA01A1	005CFFBB	01A0005C	
(2640)	FFBB01A0	005DFFBB	019F005C	FFBB019E	005CFFBA	019F005C	FFBA019C	005CFFBA	019C005C	FFBA019B	
(2680)	005CFFBB	0199005C	FFBB0199	005CFFBB	0198005B	FFBA0197	005CFFBB	0196005C	FFBB0195	005CFFBA	
(2720)	0195005C	FFBB0193	005CFFBB	0193005C	FFBB0192	005CFFBB	0192005D	FFBB0192	005CFFBB	0192005C	
(2760)	FFBB0192	005CFFBC	0193005D	FFBC0193	005CFFBB	0193005C	FFBC0193	005CFFBC	0193005C	FFBB0193	
(2800)	005CFFBB	0193005C	FFBC0193	005CFFBB	0194005C	FFBB0194	005CFFBC	0195005C	FFBC0195	005CFFBB	
(2840)	0195005C	FFBB0196	005BFFBB	0196005C	FFBC0196	005CFFBB	0197005C	FFBA0197	005DFFBB	0198005D	
(2880)	FFBB0199	005DFFBB	0199005D	FFBB0199	005CFFBA	0199005C	FFBB019B	005DFFBB	019C005D	FFBA019C	
(2920)	005DFFBB	019D005D	FFBA019E	005EFFBB	019E005D	FFBB019F	005DFFBB	01A0005D	FFBB01A0	005EFFBB	
(2960)	01A1005D	FFBB01A2	005CFFBA	01A1005D	FFBA01A1	005CFFBB	01A2005D	FFBA01A3	005CFFBB	01A2005C	
(3000)	FFBB01A2	005CFFBB	01A3005D	FFBA01A2	005BFFBB	01A1005B	FFBB01A1	005CFFBB	01A0005B	FFBB01A0	
(3040)	005BFFBA	019E005C	FFBA019E	005BFFBB	019E005B	FFBA019B	005BFFBA	019B005C	FFBA019B	005CFFBA	
(3080)	0199005B	FFBB0198	005CFFBA	0198005C	FFBA0197	005BFFBA	0196005C	FFBA0195	005CFFBA	0195005B	
(3120)	FFBB0194	005CFFBB	0193005D	FFBB0193	005CFFBB	0193005C	FFBB0192	005DFFBC	0192005D	FFBB0193	
(3160)	005DFFBC	0193005C	FFBC0193	005CFFBC	0193005D	FFBB0193	005CFFBB	0193005C	FFBC0194	005CFFBB	
(3200)	0193005C	FFBC0193	005BFFBB	0194005B	FFBB0194	005CFFBB	0194005C	FFBB0195	005BFFBB	0195005C	
(3240)	FFBB0196	005CFFBB	0196005C	FFBB0196	005CFFBA	0197005C	FFBC0197	005CFFBA	0197005D	FFBB0198	
(3280)	005CFFBA	0199005C	FFBA0199	005CFFBA	019A005D	FFBA019B	005CFFBA	019C005D	FFBA019C	005DFFBA	
(3320)	019D005D	FFBA019D	005DFFB9	019E005E	FFBA019F	005DFFB9	019F005D	FFBA01A0	005DFFBA	01A1005D	
(3360)	FFBA01A1	005CFFBA	01A1005D	FFBA01A1	005DFFBA	01A2005C	FFBB01A2	005CFFBA	01A2005D	FFBA01A2	
(3400)	005CFFBA	01A2005C	FFBB01A2	005BFFBC	01A1005C	FFBA01A1	005CFFBB	01A0005B	FFBB01A0	005CFFBA	
(3440)	019F005C	FFBA019E	005BFFBA	019D005B	FFBA019C	005BFFBA	019B005C	FFBA019B	005BFFBA	0199005B	
(3480)	FFBA0198	005CFFBA	0198005B	FFBB0197	005BFFBB	0196005C	FFBA0195	005CFFBB	0195005B	FFBA0194	
(3520)	005CFFBA	0193005B	FFBB0193	005CFFBB	0193005C	FFBB0192	005CFFBB	0193005C	FFBC0193	005CFFBC	
(3560)	0193005B	FFBC0193	005CFFBC	0193005C	FFBC0193	005BFFBC	0193005B	FFBC0194	005BFFBB	0193005C	
(3600)	FFBB0193	005BFFBC	0194005B	FFBB0194	005BFFBB	0194005B	FFBB0195	005BFFBA	0195005C	FFBA0196	
(3640)	005BFFBA	0196005C	FFBA0196	005CFFBA	0197005C	FFBA0197	005BFFBB	0197005D	FFBB0198	005CFFBB	
(3680)	0198005B	FFBA0199	005CFFBA	019A005C	FFBA019B	005CFFBA	019C005C	FFBB019D	005DFFB9	019D005C	
(3720)	FFBB019D	005DFFBA	019E005E	FFBA019F	005DFFBA	019F005D	FFBA01A0	005DFFBA	01A1005E	FFBB01A1	
(3760)	005DFFBB	01A1005D	FFBA01A1	005CFFBA	01A2005D	FFBB01A2	005CFFBA	01A1005C	FFBA01A2	005CFFBA	
(3800)	01A2005C	FFBA01A1	005BFFBB	01A2005B	FFBA01A1	005BFFBA	01A3005C	FFBA01A0	005BFFBB	019F005B	
(3840)	FFBA019F	005BFFBA	019E005B	FFBB019C	005BFFBA	019B005B	FFBB019B	005BFFBA	019A005B	FFBA0199	
(3880)	005BFFB9	0198005B	FFBA0197	005BFFBA	0197005B	FFBA0195	005BFFBA	0194005C	FFBA0194	005BFFBB	
(3920)	0193005C	FFBB0193	005CFFBA	0192005B	FFBB0192	005CFFBA	0192005C	FFBB0193	005BFFBB	0193005B	
(3960)	FFBC0193	005BFFBB	0193005B	FFBB0193	005BFFBB	0193005C	FFBB0194	005CFFBB	0193005B	FFBB0193	
(4000)	005BFFBB	0194005B	FFBB0194	005CFFBA	0194005B	FFBB0195	005BFFBB	0195005C	FFBB0196	005BFFBA	
(4040)	0196005B	FFBB0196	005CFFBB	0197005C	FFBA0197	005CFFBB	0197005B	FFBA0198	005CFFBB	0198005C	
(4080)	FFBA0199	005BFFBA	0199005C	FFBA019B	005CFFB9	019B005C	FFBA019C	005CFFB9	019D005D	FFBA019D	
(4120)	005CFFB9	019E005D	FFBA019E	005DFFB9	019F005D	FFBB019F	005DFFBA	01A0005C	FFBA01A1	005DFFBA	
(4160)	01A1005D	FFBA01A1	005CFFBA	01A2005C	FFBA01A2	005CFFBA	01A2005C	FFBB01A2	005CFFBB	01A2005B	
(4200)	FFBA01A1	005CFFBA	01A1005C	FFBB01A1	005BFFBB	01A0005C	FFBB01A0	005BFFBB	01A0005B	FFBB019E	
(4240)	005BFFBA	019E005B	FFBA019C	005AFFB9	019C005B	FFBA019B	005BFFBA	019B005B	FFBA0199	005BFFBA	
(4280)	0198005B	FFBA0197	005AFFBA	0197005B	FFBB0195	005BFFBB	0195005C	FFBA0194	005BFFBB	0193005C	
(4320)	FFBB0193	005CFFBB	0193005B	FFBA0192	005CFFBB	0192005B	FFBB0192	005BFFBB	0192005B	FFBB0193	
(4360)	005BFFBB	0193005B	FFBB0193	005BFFBB	0193005B	FFBB0194	005AFFBB	0194005B	FFBB0193	005BFFBB	
(4400)	0194005A	FFBB0194	005BFFBB	0194005B	FFBA0194	005AFFBA	0195005B	FFBB0196	005BFFBA	0195005B	
(4440)	FFBA0195	005BFFBA	0197005B	FFBA0197	005BFFBA	0197005B	FFBB0198	005CFFBA	0199005C	FFBA0199	
(4480)	005BFFBA	0199005C	FFBA019A	005CFFB9	019B005B	FFBB019B	005CFFB9	019C005C	FFBA019C	005DFFB9	
(4520)	019E005C	FFBB019E	005CFFB9	019F005D	FFBB019F	005DFFBA	01A0005D	FFBB01A1	005CFFB9	01A1005C	
(4560)	FFBB01A1	005DFFBA	01A2005D	FFBA01A2	005CFFBA	01A1005C	FFBA01A2	005CFFBA	01A2005C	FFBA01A1	
(4600)	005BFFBA	01A1005B	FFBA01A1	005BFFBA	01A0005B	FFBA01A0	005BFFBA	019F005B	FFBA019E	005BFFBA	
(4640)	019D005B	FFBA019C	005AFFB9	019B005A	FFBB019A	005BFFB9	0199005A	FFBA0198	005BFFBA	0198005B	
(4680)	FFBA0197	005BFFBA	0196005B	FFBA0195	005BFFBA	0195005B	FFBA0194	005BFFBA	0193005C	FFBB0193	
(4720)	005BFFBB	0192005B	FFBB0192	005BFFBA	0192005C	FFBB0191	005DFFBB	0193005B	FFBB0192	005AFFBB	
(4760)	0192005B	FFBB0192	005AFFBB	0192005A	FFBC0193	005BFFBB	0193005B	FFBB0193	005AFFBA	0194005A	
(4800)	FFBB0193	005AFFBB	0193005A	FFBA0194	005AFFBA	0194005B	FFBA0195	005BFFBA	0196005B	FFBA0196	
(4840)	005BFFBB	0197005B	FFBB0197	005BFFBA	0197005B	FFBA0198	005BFFBA	0198005B	FFBA0198	005BFFB9	
(4880)	0199005B	FFBB019A	005CFFB9	019B005C	FFBB019B	005CFFB9	019B005B	FFBB019C	005CFFB9	019D005C	

(11560)	00560253	FFAC0057	0252FFAE	00570252	FFAE0056	0251FFAC	02550254	FFAD0056	0254FFAF
(11600)	FFAC0056	024CFFAB	0058024A	FFAB0059	0249FFAA	00590247	FFA9005A	0246FFA9	00580244
(11640)	0243FFA8	00590242	FFAA0059	0240FFA7	005A023F	FFA7005B	023EFAA6	005A023C	FFA6005B
(11680)	005A023B	FFA50059	023BFFA5	0058023A	FFA60059	0239FFA4	00580239	FFA40058	0239FFA5
(11720)	FFA40059	023AFFA5	0059023A	FFA40058	023AFFA3	0057023B	FFA40057	023CFFA5	0058023C
(11760)	023EFAA4	00560240	FFA50056	0240FFA5	00550242	FFA60057	0243FFA7	00550244	FFA50056
(11800)	00540247	FFA70055	0248FFA7	0052024A	FFA70053	024CFFAA	0055024C	FFAA0053	0240FFA8
(11840)	FFA90054	024FFFAB	0055025C	FFAB0054	0251FFAB	00550252	FFAB0054	0253FFAA	00550253
(11880)	0253FFAD	00540254	FFAD0053	0254FFAC	00530255	FFAD0053	0254FFAD	00540255	FFAE0054
(11920)	00550255	FFAC0056	0255FFAF	00550255	FFAE0055	0254FFAE	00560255	FFAD0055	0254FFAE
(11960)	FFAD0055	0252FFAD	00570251	FFAC0057	0250FFAC	0057024F	FFAC0056	024EFAAC	0058024C
(12000)	024AFFAA	0057024A	FFAB005A	0248FFAA	00570247	FFA80059	0246FFA9	00590244	FFA80059
(12040)	00590241	FFA8005A	0240FFA6	005A023F	FFA8005C	023DFFA6	0059023C	FFA50058	023BFFA5
(12080)	FFA4005A	023AFFA3	0059023A	FFA4005A	023AFFA5	0059023A	FFA40057	0239FFA5	005A023A
(12120)	023BFFA3	0059023A	FFA60057	023AFFA4	005A023C	FFA60058	023DFFA5	0057023E	FFA60058
(12160)	00570240	FFA50056	0241FFA6	00570243	FFA70055	0244FFA6	00560245	FFA70055	0247FFA6
(12200)	FFA80053	024AFFA8	0053024B	FFA80054	024DFFA9	0054024D	FFAB0055	024EFAAA	00540250
(12240)	0251FFAA	00530252	FFAB0054	0253FFAD	00530252	FFAD0054	0253FFAC	00540253	FFAD0054
(12280)	00510255	FFAD0053	0255FFAD	00540254	FFAE0054	0255FFAE	00550255	FFAD0056	0255FFAE
(12320)	FFAF0055	0254FFAE	00550255	FFAE0056	0254FFAE	00550253	FFAD0055	0253FFAC	00570252
(12360)	0251FFAC	00570251							FFAD0055

FILE	2	RECORD	30	LENGTH	12368BYTES						
(0)	00CA2200	27571173	00622AF1	36A6001E	05A1BB9B	07970775	259521B0	ECB7045C	00600000	00600000	
(40)	000EFF3B	FEEF0010	FF36FEE8	0013FF30	FEDF001A	FF2AFED7	0010FF26	FED7001C	FF22FED4	001BFF24	
(80)	FED00017	FF23FECB	0016FF20	FEC80013	FF1CFEC6	0015FF16	FEC20014	FF16FEBD	000FFF0E	FEB3000F	
(120)	FF04FEAB	000FFEF9	FEA50012	FEF0FEA2	0016FEEA	FE9E0015	FEE3FE9D	0016FEDD	FE980014	FED9FE96	
(160)	0014FED4	FE930015	FED0FE8E	0015FECF	FE8E0017	FECAFE8F	0014FEC7	FE8E0015	FEC7FE8D	0018FEC6	
(200)	FE900016	FEC2FE93	0017FEBE	FE94001A	FE8BFE94	0C1DFEBD	FE98001F	FEBAFE9D	0020FEBA	FEA1001F	
(240)	FEB9FEA6	001EFEB4	FEA8001E	FEB0FEAA	001FFEAE	FEAA0025	FEB1FEA9	002CFEB1	FEA7002F	FEAFFEA6	
(280)	0035FEA8	FEA5003B	FEA1FEA8	0039FE9B	FEA20035	FE95FE9E	0030FE8E	FE9B0032	FE8CFE98	0035FE8A	
(320)	FE940037	FE8BFE95	0020FE89	FE990032	FE89FE9C	0C3BFE93	FE9D003E	FEA0FE9D	0044FEB1	FE9F0054	
(360)	FEC0FE9F	004FFECA	FE9D0052	FED1FE9E	0058FED4	FE9D0054	FED6FE99	0054FED3	FE920051	FED4FE97	
(400)	004EFED4	FE9A0049	FED7FE9D	0049FED9	FEA00042	FEDEFEA8	003DFEE4	FEAB003F	FEE8FEAE	0041FEF0	
(440)	FEB2003A	FEF6FEB6	0035FEFA	FEBC0030	FF06FECC	0C2BFF0D	FEC6002B	FF19FECA	0028FF22	FECE0024	
(480)	FF2CFED6	0020FF2E	FEDB0019	FF31FEE1	0012FF39	FEE90013	FF40FEF5	0012FF47	FF02000C	FF4FFF0C	
(520)	000CFF59	FF190008	FF5EFF26	0005FF66	FF310005	FF6FFF3B	0002FF77	FF47FFFA	FF80FF52	FFF7FF87	
(560)	FF59FFF4	FF8EFF63	FFF3FF96	FF6AFFF0	FF9BFF73	FFECFF9F	FF7BFFE6	FF9FFF87	FFE5FFA7	FF93FFE6	
(600)	FFA9FF95	FFE2FFAC	FF9AFFE2	FFB0FFA1	FFE5FFB2	FFACFFE2	FFAAFF9E	FFE5FFAB	FF9CFFE6	FFA9FF98	
(640)	FFE5FFAB	FF8FFFEB	FFB4FF85	FFE9FFB7	FF7FFFEB	FFB9FF7A	FFE8FFB9	FF78FFE8	FFB0FF78	FFEAFFBD	
(680)	FF79FFED	FFBFFF7A	FFEBFFBF	FF75FFEE	FFC4FF75	FFECFFC9	FF70FFED	FFC9FF71	FFF0FFCC	FF71FFF1	
(720)	FFC8FF73	FFF1FFC5	FF73FFF4	FFBEFF7D	FFF7FFBA	FFEBFFF8	FFADFF5D	FFF5FF99	FF48FFF4	FF82FF45	
(760)	FFF4FF68	FF3AFFEF	FF51FF23	FFEBFF3C	FF06FFEB	FF2AFFEF	FFEAFF1D	FEDBFFED	FF0BFECA	FFF0FEFE	
(800)	FEB5FFFF	FEF1FEA1	FFEFFEE6	FE8AFFFC	FEDEFE70	FFF2FED4	FE5BFFFF	FECAFE48	FFECFEC0	FE35FFEB	
(840)	FEB7FE1B	FFEBFEBC	FE0FFFED	FEC3FE07	FFEDFEC6	FDFFFFEE	FECFFDFB	FFEBFED5	FDFFFFE7	FED6FED2	
(880)	FFE5FEDC	FEDAFFE3	FEF1FE19	FFDDFEE3	FE29FFDC	FEECFE31	FFDAFEF0	FE39FFDA	FEF3FE41	FFDCFEF6	
(920)	FE4DFFD9	FEF3FE5C	FFD6FEF2	FE6CFFD6	FEF8FE75	FFD6FEFD	FE7FFFD9	FEFEFE89	FFDAFEFF	FE93FFDC	
(960)	FF02FE9F	FFDBFF02	FEACFFDE	FF0BFEB5	FFE2FF11	FEBFFFE3	FF12FEC8	FFE7FF1D	FECFFFE8	FF22FED3	
(1000)	FFEFFFF25	FED6FFF1	FF25FEDA	FFF7FE27	FEDCFFF6	FF23FEDB	FFF5FF20	FEDAFFFF8	FF1AFED6	FFF7FF15	
(1040)	FED1FFFA	FF0FFEC8	FFFEFF06	FEC20005	FEFEFEBA	0CC8FEF5	FEB30004	FEFFFEA7	0000FEE8	FE9E0003	
(1080)	FEE2FE97	0007FED9	FE920007	FED3FE8A	000AFECF	FE84000A	FECAFE7F	000FFEC8	FE7D000D	FECAFE7C	
(1120)	000AFED0	FE78000A	FED2FE75	0009FED4	FE730004	FED4FE70	0001FED5	FE6D0007	FED6FE6F	0005FED8	
(1160)	FE710001	FEDDFE72	FFFEFEDE	FE720001	FEEOFE75	0CC2FEE3	FE760001	FEE6FE79	FFFDFEE6	FE8CFFF4	
(1200)	FEE7FE82	FFEEFEED	FE87FFE4	FEF4FE8F	FFDEFF71	FE98FFDC	FF09FEA3	FFE3FF13	FEB1FFEA	FF1DFFB9	
(1240)	FFE7FF29	FEBFFFE1	FF30FEC9	FFDFFF36	FECFFFE1	FF3CFED3	FFDDFF41	FED9FFDA	FF42FED9	FFD8FF44	
(1280)	FED7FFD5	FF40FED3	FFCFFF36	FECAFFCA	FF2EFE8E	FFC8FF28	FEB5FFC2	FF1FFEB1	FFBBFF15	FEABFFC6	
(1320)	FF10FE9D	FFD5FFF08	FE88FFE9	FF03FE7A	FFEAFFFA	FE6FFFE0	FEEDFE63	FFE1FEE9	FE56FFD6	FEEBFE4F	
(1360)	FFCCFEE8	FE46FFCF	FEF1FE3D	FFD0FED9	FE3EFFCE	FEDAFE3B	FFCFFEDC	FE37FFC2	FED3FE2D	FFC9FED1	
(1400)	FE2EFFC9	FECBFE25	FFD6FEC9	FE25FFE3	FED0FE22	FFEDFECF	FE2AFFDC	FECBFE38	FFE3FED3	FE3EFFE4	
(1440)	FED5FE44	FFF0FED8	FE470000	FEDDFE47	FFF9FEDC	FE4EFFEF	FED8FE53	FFE8FED8	FE51FFEB	FEDAFE4F	
(1480)	FFEAFED0	FE510000	000C0000	FFF8FEDB	FE59FFED	FEF1FE4F	FFEDFEE2	FE4DFFE5	FEEOFE4F	FFDBFEE1	
(1520)	FE55FFD4	FEDFFE56	FFC0FEDA	FE54FFD7	FED0FE52	FFD0FECF	FE53FFD7	FECAFE4C	FFD0FECC	FE48FFD1	
(1560)	FEDFFE3D	FFC7FEDA	FE36FFBD	FED9FE36	FFC0FED9	FE35FFC1	FEDDFE2F	FFC3FEDB	FE29FFC0	FEDCFFE24	
(1600)	FFB9FED5	FE28FFBA	FED3FE2F	FFB7FEDC	FE36FFB2	FEF2FE39	FFACFEE6	FE3AFFAA	FEF2FE3C	FFADFFFF2	