

Voyager LECP File Descriptions

Flux Average record

FAT TAPE RECORD DESCRIPTION	
	EFFECTIVE 2/9/83
	REVISED FAT TAPE DEFINITIONS
	PHYSICAL RECORD LENGTH: 2800 BYTES
	LOGICAL RECORD LENGTH: 2800 BYTES
	NO LABELS.
	DEFAULT DENSITY: 1600 BPI, NRZI, PE.
DATA TYPES:	I*2 DEC 2 BYTE INTEGERS
	R*4 DEC 4 BYTE REALS.
	A*2 ASCII 2 CHARACTERS.

ITEM	NAME	TYPE	DESCRIPTION	WORD
1	SCID	I*2	SPACECRAFT IDENTIFICATION/MODE	1
			LEFT BYTE IS S/C ID. 0=VGR 21=VGR 1	
			RIGHT BYTE IS MODE(HEX) A=GS3, 7=CR1, 1=CR2, 2=CR3,5=CR6,8=NE	
2	SPARE	I*2	SCAN DIRECTION 1=INCR., -1=DECR.	2
3	ST01	I*2	FIRST OCCURENCE OF STATUS WORD 1	3
4	ST01	I*2	LAST OCCURENCE OF STATUS WORD 1	4
5	ST02	I*2	FIRST OCCURENCE OF STATUS WORD 2	5
6	ST02	I*2	LAST OCCURENCE OF STATUS WORD 2	6
7	ST03	I*2	FIRST OCCURENCE OF STATUS WORD 3	7
8	ST03	I*2	LAST OCCURENCE OF STATUS WORD 3	8
9	ST04	I*2	FIRST OCCURENCE OF STATUS WORD 4	9
10	ST04	I*2	LAST OCCURENCE OF STATUS WORD 4	10
11	ST05	I*2	FIRST OCCURENCE OF STATUS WORD 5	11
12	ST05	I*2	LAST OCCURENCE OF STATUS WORD 5	12
13	ST06	I*2	FIRST OCCURENCE OF STATUS WORD 6	13
14	ST06	I*2	LAST OCCURENCE OF STATUS WORD 6	14
15	MPOS	I*2	MOTOR POSITION(0,1,2,3,4,5,6,7)	
16	TTEMP	I*2	TEL. TEMP. (128*CENT. DEG)(-9999 IF UNK.)	
17	LOGT	I*2	LOG AMP. TEMP. (128* CENT.DEG.)	17
18	TIMUNT	I*2	BASIC ACCUM. TIME UNIT IN SECONDS FROM MRT	18
19	NGRP	I*2	NUMBER OF RATE GROUPS IN THIS FORMAT	19
20	G18		GROUP 18 I.D./SC EVENT TIME FLAG	20
21	ALTFLG		FLAG FOR THE GS3 50-50 MODE 0=LEPT, 1=LEMPA	
22	DATE	A*2	FIRST TWO CHARACTERS OF PRODUCTION DATE	
23	DATE	A*2	PRODUCTION DATE (cont.)	
24	DATE	A*2	PRODUCTION DATE (cont.)	
25	DATE	A*2	PRODUCTION DATE (cont.)	
26	DATE	A*2	PRODUCTION DATE (cont.)	
27	DATE	A*2	PRODUCTION DATE (cont.)	
28	RATE	I*2	STEPPING RATE, SECONDS.	
29	SPARE			
30	ADFL	I*2	FLAG=1 FOR DEAD TIME CORR. APPLIED (ALPHA)	
31	BDFL	I*2	FLAG=1 FOR DEAD TIME CORR. APPLIED (BETA)	
32	ADVR	A*2	TWO CHARACTERS FOR DEAD TIME VERSION USED (ALPHA)	
33	BDVR	A*2	TWO CHARACTERS FOR DEAD TIME VERSION USED (BETA)	
34	SPARE			
35	SECST	I*2	16*AVG BEGIN TIME IN SECONDS	
36	SECSP	I*2	16*AVG END TIME IN SECONDS	36
37	M60F	I*2	VALUE OF MOD 60 AT FIRST APPEARANCE	37
38	M60L	I*2	VALUE OF MOD 60 AT LAST APPEARANCE	38
39	M16F	I*2	VALUE OF MOD 2**16 AT FIRST APPEARANCE	39

40	M16L	I*2	VALUE OF MOD 2**16 AT LAST APPEARANCE	40
41	SCETHS	I*2	SPACECRAFT EVENT TIME HOUR AT START	41
42	SCETSS	I*2	SPACECRAFT EVENT TIME HOUR AT END	42
43	SCETSS	I*2	SPACECRAFT EVENT TIME SECOND AT START	43
44	SCETSE	I*2	SPACECRAFT EVENT TIME SECOND AT END	44
45	SCETMS	I*2	SPACECRAFT EVENT TIME MILLISECOND START	45
46	SCETME	I*2	SPACECRAFT EVENT TIME MILLISECOND END	46
47	SCETYS	I*2	SPACECRAFT EVENT TIME YEAR AT START	47
48	SCETYE	I*2	SPACECRAFT EVENT TIME YEAR AT END	48
49	WYEAR	I*2	AVG. WINDOW YEAR IF APPLICABLE.	
50	WDAY	I*2	AVG. WINDOW DAY IF APPLICABLE.	
51	WHR	I*2	AVG. WINDOW HOUR IF APPLICABLE.	
52	WSEC	I*2	AVG. WINDOW SECONDS IF APPLICABLE.	
53	WINC	I*2	100. AVG DURATION IN HOURS.	
54	SPARE			
55	SPARE			
56	SPARE			
57	SPARE			
58	SPARE			
59	SPARE			
60			JOVICENTRIC RADIAL DISTANCE IN UNITS OF 100*RJ	
61			JOVIMAGNETIC DIPOLE LATITUDE OF S/C IN 10*DEGREES	
62			JOVIMAGNETIC DIPOLE LONGITUDE OF S/C IN 10*DEGREES	
63			SYSTEM III LONG OF S/C IN 10*DEGREES	
64			SYSTEM III LONG OF IO IN 10*DEGREES	
65			SYSTEM III LONG OF EUROPA IN 10 * DEGREES	
66	NAME	A*2	INPUT FILENAME	
67	NAME	A*2	INPUT FILENAME (cont.)	
68	NAME	A*2	INPUT FILENAME (cont.)	
69	NAME	A*2	INPUT FILENAME (cont.)	
70			MAGNETIC FIELD X COMPONENT IN UNITS OF 10*GAMMA	
71			MAGNETIC FIELD Y COMPONENT IN UNITS OF 10*GAMMA	
72			MAGNETIC FIELD Z COMPONENT IN UNITS OF 10*GAMMA	
			IF BY=BZ=32767 THEN BX IS THE MAGNITUDE OF THE FIELD	
73			MAGNETIC FIELD L VALUE OF THE SPACECRAFT	
74	SPARE			
75	SPARE			
76	SPARE			
77	SPARE			
78	SPARE			
79	SPARE			
80			SECTOR 1 PITCH ANGLE IN UNITS OF 10*DEGREES	
81	2			
82	3			
83	4			
84	5			
85	6			
86	7			
87	8			
88			SECTOR 1 OF P DELTA' PITCH ANGLE IN UNITS OF 10 * DEGREES	
89	2			
90	3			
91	4			
92	5			
93	6			

94	7			
95	8			
96	NAME	A*2	OUTPUT FILENAME	
97	NAME	A*2	OUTPUT FILENAME (cont.)	
98	NAME	A*2	OUTPUT FILENAME (cont.)	
99	NAME	A*2	OUTPUT FILENAME (cont.)	
100	SPARE			

NUM.	NAME	SPECIES	ENERGY(MEV/NUCLEON)	DETECTOR
1	EB01	ELECTRON	0.015 TO 0.037	BETA
2	EBD1	ELECTRON	0.015 TO 0.200	BETA PRIME
3	EB02	ELECTRON	0.037 TO 0.061	BETA
4	EBD2	ELECTRON	0.037 TO 0.200	BETA PRIME
5	EB03	ELECTRON	0.070 TO 0.112	BETA
6	EBD3	ELECTRON	0.070 TO 0.200	BETA PRIME
7	EB04	ELECTRON	0.130 TO 0.183	BETA
8	EBD4	ELECTRON	0.130 TO 0.200	BETA PRIME
9	EB05	ELECTRON	0.20 & UP	BETA
10	EBD5	ELECTRON	0.20 & UP	BETA PRIME
11	EG06	ELECTRON	0.20 & UP	GAMMA
12	EG07	ELECTRON	0.40 & UP	GAMMA
13	EG08	ELECTRON	0.70 & UP	GAMMA
14	EG09	ELECTRON	1.50 & UP	GAMMA
15	44	ELECTRON	0.35 TO 1.50	E4(E5A)(E3)(E2)
16	45	ELECTRON	2.5 & UP	E4 E3A (E3C)(E5A)(E2)
17	37	ELECTRON	6.0 & UP	E4 (E4A)E3C(E5A)(E2)
18	PL01	Z.GE.1	0.030 TO 0.053 (Z=1)	A1(A2)
19	PL02	Z.GE.1	0.053 TO 0.085 (Z=1)	A2(A3)
20	PL03	Z.GE.1	0.085 TO 0.139 (Z=1)	A3(A4)
21	PL04	Z.GE.1	0.139 TO 0.200 (Z=1)	A4(A5)
22	PL05	Z.GE.1	0.200 TO 0.550 (Z=1)	A5(A6)
23	PL06	Z.GE.1	0.540 TO 1.05 (Z=1)	A6(A7)
24	PL07	Z.GE.1	1.05 TO 2.03 (Z=1)	A7(A8)
25	PL08	Z.GE.1	2.03 TO 4.01 (Z=1)	A8(A9)
26	32	PROTONS	0.27 TO 0.70	E0 E2 (E3)
27	1	PROTONS	0.48 TO 1.40	E1 E2 (E3) (L12A)
28	10	PROTONS	4.10 TO 10.0	E2 E3 (E4)
29	11	PROTONS	10.0 TO 22.0	E2 E3 (E4)
30	16	PROTONS	3.0 TO 19.0	E5 E4 (E3)
31	23	PROTONS	19.0 TO 31.0	E5 E4 E3 (E2)
32	27	PROTONS	31.0 TO 150.0	E5 E4 E3 E2
33	31	PROTONS	240.& UP	E4 E3
34	39	ALPHAS	0.075 TO 0.150	E0 (E2)
35	33	ALPHAS	0.150 TO 0.430	E0 E2 (E3)
36	DIF1	ALPHAS	0.150 TO 1.10	E1
37	3	ALPHAS	0.39 TO 1.50	E1 E2 (E3) L12A (L12B)
38	4	ALPHAS	1.50 TO 3.70	E1 E2 (E3) L12A (L12B)
39	12	ALPHAS	4.20 TO 8.90	E2 E3 (E4) (L23A)
40	13	ALPHAS	8.90 TO 21.0	E2 E3 (E4) (L23A)
41	17	ALPHAS	3.0 TO 21.0	E5 E4 (E3) L54A (L54B)
42	24	ALPHAS	21.0 TO 31.0	E5 E4 E3 (E2)
43	28	ALPHAS	34.0 TO 64.0	E5 E4 E3 E2
44	AL01	ALPHAS	0.98 TO 1.77	A9(A10)
45	AL02	ALPHAS	1.77 TO 4.22	A10
46	34	ALPHAS	0.23 TO 0.44	E0 E2 (E3)
47	5	L-NUCLEI	0.60 TO 4.20	E1 E2 (E3) L12B (L12C)
48	14	L-NUCLEI	5.50 TO 33	E2 E3 (E4) L23A (L23B)
49	18	L-NUCLEI	4.0 TO 21	E5 E4 (E3) L54B (L54C)
50	38	M-NUCLEI	0.047 TO 0.125	E0 (E2)
51	35	M-NUCLEI	0.125 TO 0.260	E0 E2 (E3)
52	DIF2	M-NUCLEI	0.130 TO 10.	E1
53	6	M-NUCLEI	0.440 TO 2.90	E1 E2 (E3)
54	7	M-NUCLEI	2.90 TO 7.8	E1 E2 (E3)
55	15	M-NUCLEI	7.80 TO 40.	E2 E3 (E4) L23B (L23C)
56	19	M-NUCLEI	6.30 TO 10.0	E5 E4 (E3) L54C (L54D)
57	20	M-NUCLEI	10.0 TO 42.0	E5 E4 (E3) L54C (L54D)
58	25	M-NUCLEI	42.0 TO 64.0	E5 E4 E3 (E2)
59	29	M-NUCLEI	64.0 TO 200.	E5 E4 E3 E2

60	36	H-NUCLEI	0.062 TO 0.105	E0 E2 (E3)
61	8	H-NUCLEI	0.250 TO 2.00	E1 E2 (E3)
62	9	H-NUCLEI	2.00 TO 13.	E1 E2 (E3)
63	43	H-NUCLEI	13.0 TO 74.0	E2 E3 (E4) L23C
64	21	H-NUCLEI	8.60 TO 21.0	E5 E4 (E3) L54D
65	22	H-NUCLEI	21.0 TO 86.0	E5 E4 (E3) L54D
66	26	H-NUCLEI	86.0 TO 125.	E5 E4 E3 (E2)
67	30	H-NUCLEI	125.0 & UP	E5 E4 E3 E2
68	42	MISC.	AR	
69	42	MISC.	E0	
70	42	MISC.	E1	
71	42	MISC.	E2	
72	42	MISC.	E3	
73	42	MISC.	E4	
74	42	MISC.	E5	
75	42	MISC.	AL	
76	41	MISC.	AL AR	
C	NEAR	ENCOUNTER	ONLY DATA CHANNELS	
77	ESA0	ELECTRONS	2.5 & UP	A SINGLES
78	ESB0	ELECTRONS	8.5 & UP	B SINGLES
79	AB10	ELECTRONS	8.5 & UP	A1 B0 COINC.
80	DP09	IONS	0.285 TO 5.02	DELTA '
81	DP10	IONS	0.480 TO 2.58	DELTA '
82	DP11	IONS	0.725 TO 1.64	DELTA '
83	PD09	IONS	0.285 TO 5.25	DELTA
84	PD10	IONS	0.480 TO 2.72	DELTA
85	PD11	IONS	0.725 TO 1.72	DELTA
86	AB12	IONS	54.0 TO 87.3	A1 B2 COINC.
87	AB13	IONS	87.3 TO 152.	A1 B3 COINC.
88	PSA1	IONS	15.8 TO 158.	A1 SINGLES
89	PSA2	IONS	15.8 TO 49.0	A2 SINGLES
90	PSA3	IONS	16.3 TO 26.2	A3 SINGLES
91	PSB1	IONS	54.0 TO 174.	B1 SINGLES
92	PSB2	IONS	54.0 TO 87.3	B2 SINGLES
93	PSB3	IONS	54.0 TO 59.0	B3 SINGLES
94	DA03	IONS Z.GE.2 0	0.480 TO 2.45	DELTA '
95	DA04	IONS Z.GE.2 0	0.780 TO 1.41	DELTA '
96	DZ01	IONS Z.GE.2 0	0.405 TO 18.8	DELTA '
97	AD03	IONS Z.GE.2 0	0.480 TO 2.58	DELTA
98	AD04	IONS Z.GE.2 0	0.780 TO 1.48	DELTA
99	ZD01	IONS Z.GE.2 0	0.400 TO 19.8	DELTA
100	SPARE			
101-200	UNC.	1-100	UNITS OF 64*PERCENT	
201-300	NUMBER	1-100	UNITS OF BASIC ACCUM. TIME FOR MODE	
301	1		EB01/EB02 EXPONENT	
302	2		EB02/EB03 EXPONENT	
303	3		EB03/EB04 EXPONENT	
304	4		EB04/EB05 EXPONENT	
305	5		EG06/EG07 EXPONENT	
306	6		EG07/EG08 EXPONENT	
307	7		EG08/EG09 EXPONENT	
308	8		PL01/PL02 EXPONENT	
309	9		PL02/PL03 EXPONENT	
310	10		PL03/PL04 EXPONENT	
311	11		PL04/PL05 EXPONENT	
312	12		PL05/PL06 EXPONENT	
313	13		PL06/PL07 EXPONENT	
314	14		PL07/PL08 EXPONENT	
315	15	32/1	EXPONENT	

316	16	1/10	EXPONENT	
317	17	10/11	EXPONENT	
318	18	16/23	EXPONENT	
319	19	AL01/AL02	EXPONENT	
320	20	39/33	EXPONENT	
321	21	33/3	EXPONENT	
322	22	3/4	EXPONENT	
323	23	4/12	EXPONENT	
324	24	12/13	EXPONENT	
325	25	17/24	EXPONENT	
326	26	38/35	EXPONENT	
327	27	35/6	EXPONENT	
328	28	6/7	EXPONENT	
329	29	7/15	EXPONENT	
330	30	19/20	EXPONENT	
331	31	36/8	EXPONENT	
332	32	8/9	EXPONENT	
333	33	9/43	EXPONENT	
334	34	21/22	EXPONENT	
335	35		PD09/PD10 LOG10 RATIO	
336	36		PD10/PD11 LOG10 RATIO	
337	37		PAB12/13 EXPONENT	
338	38		DP09/DP10 LOG10 RATIO	
339	39		DP10/DP11 LOG10 RATIO	
340	40		AD03/AD04 LOG10 RATIO	
341	41		DA03/DA04 LOG10 RATIO	
342	42	SA2/SB2	EXPONENT	
343-350	SPARES			
351	1		PL03/39 P/ALPHA RATIO .075 TO .150	
352	2		(PL04+PL05)/33 P/APLHA RATIO .150 TO .430	
353	3		(PL06+PL07)/3 P/ALPHA RATIO .390 TO 1.5	
354	4		1/3 P/ALPHA RATIO .48 TO 1.5	
355	5		10/12 P/ALPHA RATIO 4.2 TO 8.9	
356	6		11/13 P/ALPHA RATIO 8.9 TO 21.0	
357	7		PL07/AL01 P/ALPHA RATIO 1.0 TO 1.8	
358	8		PL08/ 4 P/ALPHA RATIO 1.5 TO 3.7	
359	9		16/17 P/ALPHA RATIO 3.0 TO 21.0	
360	10		23/24 P/ALPHA RATIO 21.0 TO 31.0	
361	11		27/28 P/ALPHA RATIO 31.0 TO 64.0	
362	12		39/38 ALPHA/MEDIUM 0.047 TO 0.125	
363	13	33/35	ALPHA/MEDIUM 0.125 TO 0.260	
364	14	(3+4)/6	ALPHA/MEDIUM 0.440 TO 2.90	
365	15	12/7	ALPHA/MEDIUM 2.90 TO 7.80	
366	16	13/15	ALPHA/MEDIUM 7.80 TO 40.0	
367	17	17/19	ALPHA/MEDIUM 6.30 TO 10.0	
368	18	(24+28)/(20+25)	ALPHA/MEDIUM 10.0 TO 64.0	
369	19	D1F1/D1F2	ALPHA/MEDIUM 0.130 TO 10.0	
370	20	38/36	MEDIUM/HEAVY 0.062 TO 0.105	
371	21	6/8	MEDIUM/HEAVY 0.250 TO 2.00	
372	22	7/9	MEDIUM/HEAVY 2.00 TO 13.0	
373	23	15/43	MEDIUM/HEAVY 13.0 TO 74.0	
374	24	(19+20+25)/(21+22)	MEDIUM/HEAVY 8.60 TO 86.0	
375	25	PD09/AD03	PROTON/ALPHA,RAW C.R. RATIO	
376	26	PD10/AD04	PROTON/ALPHA,RAW C.R. RATIO	
377	27	AD04/ZD01	ALPHA/MEDIUM,RAW C.R. RATIO	
378	28	DP09/DA03	PROTON/ALPHA,RAW C.R. RATIO	
379	29	DP10/DA04	PROTON/ALPHA,RAW C.R. RATIO	
380	30	DA04/DZ01	ALPHA/MEDIUM,RAW C.R. RATIO	
381	1	(10+11)/16	FRONT/BACK RATIO PROTONS	3.0 TO 19.0
382	2	(12+13)/17	FRONT/BACK RATIO ALPHAS	3.0 TO 21.0

383	3	15/(19+20)	FRONT/BACK RATIO MEDIUMS	6.3 TO 42.0
384	4	43/(21+22)	FRONT/BACK RATIO HEAVIES	8.6 TO 86.0
385	5	EB01/EBD1	POLAR/EQUATOR ELECTRONS	
386	6	EB02/EBD2	POLAR/EQUATOR ELECTRONS	
387	7	EB03/EBD3	POLAR/EQUATOR ELECTRONS	
388	8	EB04/EBD4	POLAR/EQUATOR ELECTRONS	
389	9	EB05/EBD5	POLAR/EQUATOR ELECTRONS	
390	10	PD09/DP09	EQUATOR/POLAR IONS	
391	11	PD10/DP10	EQUATOR/POLAR IONS	
392	12	PD11/DP11	EQUATOR/POLAR IONS	
393	13	AD03/DA03	EQUATOR/POLAR ALPHAS	
394	14	AD04/DA04	EQUATOR/POLAR ALPHAS	
395	15	ZD01/DZ01	EQUATOR/POLAR MEDIUMS	
396-400	SPARES			
401-500			UNCS.FOR ITEMS 301-400 ABOVE	
501-600		**THIS IS A VECTOR OF LENGTH 100 CONTAINING THE VALUES OF GAMMA USED IN CORRECTING THE COUNT RATES FOR THE FINITE PASSBAND WIDTHS IN THE DERIVATION OF THE DIFFERENTIAL FLUXES. THESE MAY BE ACTUAL OR DEFAULT VALUES, DEPENDING ON THE OUTCOME OF THE ATTEMPT TO DERIVE AN ESTIMATE FROM THE COUNT RATE RATIOS.UNITS ARE 2048*GAMMA.		
601-700		COMPOSITION CORRECTION FACTORS FOR RATE CHANNELS 1-100 THESE ARE THE NUMERICAL FACTORS BY WHICH THE COUNT RATE WAS MULTIPLIED TO CORRECT IT FOR CONTAMINATION BY EXTRA SPECIES. THIS IS A NUMBER BETWEEN 0. AND 1.0 UNITS ARE 1024*FACTOR		
701-800		FLUXES CORRESPONDING TO ITEMS 1-100 ABOVE DIFFERENTIAL FLUXES EVALUATED AT STANDARD VALUES OF THE ENERGY AND CORRECTED FOR FINITE PASSBAND WIDTHS AND CONTAMINATION BY UNDESIREED SPECIES		
801-900		FLUX UNCS. IN UNITS OF 64*PERCENT BY EXPRESSING THE UNCERTAINTY IN UNITS OF 64*PERCENT WE CAN USE A INTEGER VARIABLE HERE. THIS HAS TWO ADVANTAGES: ONE, IT SAVES SPACE IN THE RECORD, AND TWO, REAL NUMBERS HAVE TO BE CONVERTED INTO MACHINE-DEPENDENT FORM OF INTERNAL BINARY WORD		
901-1000		100 I*2 WORDS WHICH GIVE THE NUMBER OF MOTOR POSITIONS INCLUDED IN THE AVERAGE--USUALLY =1 FOR UNMIXED DATA.		
1001-1100		100 I*2 WORDS WHICH GIVE THE STARTING POSITION OF THIS AVERAGE.IHED(15) GIVES THE ENDING POSITION OF THE MOTOR FOR THE		

Super Average Record

SAT TAPE RECORD DESCRIPTION

EFFECTIVE 9/1/91
PHYSICAL RECORD LENGTH:10000 BYTES
LOGICAL RECORD LENGTH: 10000 BYTES
INCLUDING FOLLOWING 15 BLOCKS

Overall Record Block Organization

ITEM	BLOCK NAME <i>FORTRAN DECLARATION</i>	DATA TYPE*	DESCRIPTION	BYTE LOCATION
1	HEADER <i>IHEAD(100)</i>	I*2 /A*2	100 ITEMS	1 - 200
2	COUNT RATES <i>RATES(100,10)</i>	R*4	100 CHANNELS * 10 SECTORS	201 - 4200
3	UNCERTAINTIES OF RATES <i>IUNCS(100,10)</i>	I*2	100 CHANNELS * 10 SECTORS	4201 - 6200
4	SAMPLE NUMBERS <i>NSAMP(100,10)</i>	I*2	100 CHANNELS * 10 SECTORS	6201 - 8200
5	RATE RATIOS <i>IGAM(50)</i>	I*2	50 ITEMS	8201 - 8300
6	COMPOSITION RATIOS <i>ICOMPR(30)</i>	I*2	30 ITEMS	8301 - 8360
7	ANGULAR RATIOS <i>IANGER(20)</i>	I*2	20 ITEMS	8361 - 8400
8	RATE RATIO UNCERTAINTIES <i>IUGAM(50)</i>	I*2	50 ITEMS	8401 - 8500
9	COMP. RATIO UNCERTAINTIES <i>IUCOMP(30)</i>	I*2	30 ITEMS	8501 - 8560
10	ANGR. RATIO UNCERTAINTIES <i>IUANGR(20)</i>	I*2	20 ITEMS	8561 - 8600
11	RATE CORRECTION FACTORS <i>IGFLX(100)</i>	I*2	100 CHANNELS	8601 - 8800
12	COMP. CORRECTION FACTORS <i>ICFACT(100)</i>	I*2	100 CHANNELS	8801 - 9000
13	FLUXES <i>FLUXES(100)</i>	R*4	100 CHANNELS	9001 - 9400
14	UNCERTS. OF FLUXES <i>IUFLUX(100)</i>	I*2	100 CHANNELS	9401 - 9600
15	ANGULAR RESOLUTIONS <i>ISTP(100,2)</i>	I*2	2 * 100 CHANNELS	9601 - 10000

* I*2 = DEC 2 BYTE INTEGERS, R*4 = DEC 4 BYTE REALS, AND A*2 = ASCII 2 CHARACTERS

BLOCK 1: HEADERS [IHEAD(100)]			
ITEM	NAME	TYPE	DESCRIPTION
1	SCID	I*2	SPACECRAFT IDENTIFICATION/MODE LEFT BYTE IS S/C ID: 0=VGR 2,1=VGR 1; RIGHT BYTE IS MODE(HEX): 1=CR1(7), 2=CR2(1), 3=CR3(2), 4=CR4(3),5=CR5(4), 6=CR6(5), 7=CR7(6), 8=NE(8), 9=GS3(10), 10=CR5A(24, 29)
2	SCNDIR	I*2	SCAN DIRECTION 1=INCR., -1=DECR , 0=PARK
3	ST01	I*2	FIRST OCCURENCE OF STATUS WORD 1 ^S
4	ST01	I*2	LAST OCCURENCE OF STATUS WORD 1
5	ST02	I*2	FIRST OCCURENCE OF STATUS WORD 2
6	ST02	I*2	LAST OCCURENCE OF STATUS WORD 2
7	ST03	I*2	FIRST OCCURENCE OF STATUS WORD 3
8	ST03	I*2	LAST OCCURENCE OF STATUS WORD 3
9	ST04	I*2	FIRST OCCURENCE OF STATUS WORD 4
10	ST04	I*2	LAST OCCURENCE OF STATUS WORD 4
11	ST05	I*2	FIRST OCCURENCE OF STATUS WORD 5
12	ST05	I*2	LAST OCCURENCE OF STATUS WORD 5
13	ST06	I*2	FIRST OCCURENCE OF STATUS WORD 6
14	ST06	I*2	LAST OCCURENCE OF STATUS WORD 6
15	MPOS	I*2	MOTOR POSITION(0,1,2,3,4,5,6,7)
16	TTEMP	I*2	TEL. TEMP, (128*CENT. DEG)(-9999 IF UNK.)
17	LOGT	I*2	LOG AMP. TEMP. (128* CENT.DEG.)
18	TIMUNT	I*2	BASIC ACCUM. TIME UNIT IN SECONDS FROM MRT
19	NGRP	I*2	NUMBER OF RATE GROUPS IN THIS FORMAT
20	G18	I*2	GROUP 18 I.D./SC EVENT TIME FLAG
21	ALTFLG	I*2	FLAG FOR THE GS3 50-50 MODE 0=LEPT, 1=LEMPA
22	DATE	A*2	FIRST TWO CHARACTERS OF PRODUCTION DATE
23	DATE	A*2	THIRD AND FOURTH CHARACTERS OF PRODUCTION DATE
24	DATE	A*2	FIFTH AND SIXTH CHARACTERS OF PRODUCTION DATE
25	DATE	A*2	SEVENTH AND EIGHT CHARACTERS OF PRODUCTION DATE
26	DATE	A*2	NINTH AND TENTH CHARACTERS OF PRODUCTION DATE
27	DATE	A*2	ELEVENTH AND TWELFTH CHARACTERS OF PRODUCTION DATE
28	RATE	I*2	STEPPING RATE, SECONDS.
29	SPARE		
30	ADFL	I*2	FLAG=1 FOR DEAD TIME CORR.APPLIED (ALPHA)
31	BDFL	I*2	FLAG=1 FOR DEAD TIME CORR.APPLIED (BETA)
32	ADVR	A*2	TWO CHARACTERS FOR DEAD TIME VERSION USED (ALPHA)
33	BDVR	A*2	TWO CHARACTERS FOR DEAD TIME VERSION USED (BETA)
34	SPARE		
35	SECST	I*2	16*AVG BEGIN TIME IN SECONDS
36	SECSP	I*2	16*AVG END TIME IN SECONDS
37	M60F	I*2	VALUE OF MOD 60 AT FIRST APPEARANCE
38	M60L	I*2	VALUE OF MOD 60 AT LAST APPEARANCE

^S See details in Appendix A

39	M16F	I*2	VALUE OF MOD 2**16 AT FIRST APPEARANCE
40	M16L	I*2	VALUE OF MOD 2**16 AT LAST APPEARANCE
41	SCETHS	I*2	SPACECRAFT EVENT TIME HOUR AT START
42	SCETHE	I*2	SPACECRAFT EVENT TIME HOUR AT END
43	SCETSS	I*2	SPACECRAFT EVENT TIME SECOND AT START
44	SCETSE	I*2	SPACECRAFT EVENT TIME SECOND AT END
45	SCETMS	I*2	SPACECRAFT EVENT TIME MILLISECOND START
46	SCETME	I*2	SPACECRAFT EVENT TIME MILLISECOND END
47	SCETYS	I*2	SPACECRAFT EVENT TIME YEAR AT START
48	SCETYE	I*2	SPACECRAFT EVENT TIME YEAR AT END
49	WYEAR	I*2	AVG. WINDOW YEAR IF APPLICABLE.
50	WDAY	I*2	AVG. WINDOW DAY IF APPLICABLE.
51	WHR	I*2	AVG. WINDOW HOUR IF APPLICABLE.
52	WSEC	I*2	AVG. WINDOW SECONDS IF APPLICABLE.
53	WINC	I*2	100. AVG DURATION IN HOURS.
<p>THE FOLLOWING ITEMS 54-65 AND 70-72 ARE TRAJECTORY DATA WHICH HAVE DIFFERENT DEFINITIONS FOR CRUISE, JUPITER, SATURN, URANUS, AND NEPTUNE.</p> <p>IN GENERAL, THE COORDINATE FOR SATELLITES IS PLANET CENTERED, PLANET MEAN ORBIT, AND PRIME MERIDIAN IN SUN DIRECTION.</p> <p>HOWEVER, THE COORDINATE FOR SUN IS PLANET CENTERED, EARTH MEAN ECLIPTIC AND EQUINOX OF 1950.0 (ECL50).</p> <p>SATELLITE 1 MEANS IO, TITAN, MIMAS, AND TRITON AT NEAR ENCOUNTER OF PLANET JUPITER, SATURNE, URANUS, AND NEPTUNE, RESPECTIVELY.</p> <p>SIMILARLY, SATELLITE 2 MEANS EUROPA, RHEA, ARIEL, AND 1989N1, SATELLITE 3 MEANS GANYMEDE, DIONE, UMBRIEL, AND 1989N2, SATELLITE 4 MEANS CALLISTO, MIMAS, TITANIA, AND 1989N3, RESPECTIVELY.</p>			
54	SUNX	I*2	X COORDINATE OF SUN, UNITS OF 0.01 AU
55	SUNY	I*2	Y COORDINATE OF SUN, UNITS OF 0.01 AU
56	SUNZ	I*2	Z COORDINATE OF SUN, UNITS OF 0.01 AU
57	SAT1X	I*2	X COORDINATE OF SATELLITE 1, UNITS OF 0.01 Rp
58	SAT1Y	I*2	Y COORDINATE OF SATELLITE 1, UNITS OF 0.01 Rp
59	SAT1Z	I*2	Z COORDINATE OF SATELLITE 1, UNITS OF 0.01 Rp
60	SAT2X	I*2	X COORDINATE OF SATELLITE 2, UNITS OF 0.01 Rp
61	SAT2Y	I*2	Y COORDINATE OF SATELLITE 2, UNITS OF 0.01 Rp
62	SAT2Z	I*2	Z COORDINATE OF SATELLITE 2, UNITS OF 0.01 Rp
63	SAT3X	I*2	X COORDINATE OF SATELLITE 3, UNITS OF 0.01 Rp
64	SAT3Y	I*2	Y COORDINATE OF SATELLITE 3, UNITS OF 0.01 Rp
65	SAT3Z	I*2	Z COORDINATE OF SATELLITE 3, UNITS OF 0.01 Rp
66	NAMEIN	A*2	FIRST AND SECOND CHARACTERS OF INPUT FILENAME
67	NAMEIN	A*2	THIRD AND FOURTH CHARACTERS OF INPUT FILENAME
68	NAMEIN	A*2	FIFTH AND SIXTH CHARACTERS OF INPUT FILENAME
69	NAMEIN	A*2	SEVENTH AND EIGHTH CHARACTERS OF INPUT FILENAME.
70	SAT4X	I*2	X COORDINATE OF SATELLITE 4, UNITS OF 0.01 Rp
71	SAT4Y	I*2	Y COORDINATE OF SATELLITE 4, UNITS OF 0.01 Rp
72	SAT4Z	I*2	Z COORDINATE OF SATELLITE 4, UNITS OF 0.01 Rp

THE ITEMS 73-95 ARE INFORMATION OF PLANETOCENTRIC MAGNETIC DIPOLE FIELD, AS WELL AS DETECTOR'S PITCH ANGLES AT 8 SCANNING SECTORS. PARTICULARLY, THE ITEMS 88-95 ARE AVAILABLE ONLY AT THE NEAR ENCOUNTER MODE, FOR E β CHANNELS.

73	RANGE	I*2	PLANETOCENTRIC RADIAL DISTANCE OF S/C, UNITS OF 0.01 R _p
74	MAGLAT	I*2	CENTERED MAGNETIC DIPOLE LATITUDE AT S/C, IN 10*DEGREES
75	MAGLON	I*2	CENTERED MAGNETIC DIPOLE LONGITUDE AT S/C, IN 10*DEGREES
76	BSTNX	I*2	MAGNETIC FIELD X-COMPONENT AT S/C, IN 10*GAMMA
77	BSTNY	I*2	MAGNETIC FIELD Y-COMPONENT AT S/C, IN 10*GAMMA
78	BSTNZ	I*2	MAGNETIC FIELD Z-COMPONENT AT S/C, IN 10*GAMMA IF BY=BZ=32767 THEN BX IS THE MAGNITUDE OF THE FIELD
79	LVAL	I*2	PLANETARY MAGNETIC FIELD L VALUE OF S/C, UNITS OF 0.01 R _p
80	PITCH1	I*2	SECTOR 1 PITCH ANGLE, IN UNITS OF 10*DEGREES
81	PITCH2	I*2	SECTOR 2 PITCH ANGLE, IN UNITS OF 10*DEGREES
82	PITCH3	I*2	SECTOR 3 PITCH ANGLE, IN UNITS OF 10*DEGREES
83	PITCH4	I*2	SECTOR 4 PITCH ANGLE, IN UNITS OF 10*DEGREES
84	PITCH5	I*2	SECTOR 5 PITCH ANGLE, IN UNITS OF 10*DEGREES
85	PITCH6	I*2	SECTOR 6 PITCH ANGLE, IN UNITS OF 10*DEGREES
86	PITCH7	I*2	SECTOR 7 PITCH ANGLE, IN UNITS OF 10*DEGREES
87	PITCH8	I*2	SECTOR 8 PITCH ANGLE, IN UNITS OF 10*DEGREES
88	PITCH1P	I*2	SECTOR 1 OF E β PITCH ANGLE, IN UNITS OF 10 * DEGREES
89	PITCH2P	I*2	SECTOR 2 OF E β PITCH ANGLE, IN UNITS OF 10 * DEGREES
90	PITCH3P	I*2	SECTOR 3 OF E β PITCH ANGLE, IN UNITS OF 10 * DEGREES
91	PITCH4P	I*2	SECTOR 4 OF E β PITCH ANGLE, IN UNITS OF 10 * DEGREES
92	PITCH5P	I*2	SECTOR 5 OF E β PITCH ANGLE, IN UNITS OF 10 * DEGREES
93	PITCH6P	I*2	SECTOR 6 OF E β PITCH ANGLE, IN UNITS OF 10 * DEGREES
94	PITCH7P	I*2	SECTOR 7 OF E β PITCH ANGLE, IN UNITS OF 10 * DEGREES
95	PITCH8P	I*2	SECTOR 8 OF E β PITCH ANGLE, IN UNITS OF 10 * DEGREES
96	NAMEOUT	A*2	FIRST AND SECOND CHARACTERS OF OUTPUT FILENAME
97	NAMEOUT	A*2	THIRD AND FOURTH CHARACTERS OF OUTPUT FILENAME
98	NAMEOUT	A*2	FIFTH AND SIXTH CHARACTERS OF OUTPUT FILENAME
99	NAMEOUT	A*2	SEVENTH AND EIGHTH CHARACTERS OF OUTPUT FILENAME
100	SPARE		

BLOCK 2: COUNT RATES [RATES(100,10)]

THE FOLLOWING 1000 ITEMS, FLOATING POINT, ARE THE COUNT RATES OF 100 DATA CHANNELS IN 10 SECTOR POSITIONS. THE SUBSCRIPTING OF THE RATES(I,J) ARRAY IS: FIRST INDEX IS CHANNEL NUMBER AND SECOND INDEX IS SECTOR (1-8 AS USUAL, 9 = DON'T KNOW, AND 10 = SCAN AVERAGE).THE 100 CHANNELS ARE DESCRIBED BELOW:

CHNL #	NAME (NOMINAL)	SPECIES	ENERGY(MEV/NUCLEON)
1	EB01	ELECTRON	0.015 TO 0.037
2	EBD1	ELECTRON	0.015 TO 0.200
3	EB02	ELECTRON	0.037 TO 0.061
4	EBD2	ELECTRON	0.037 TO 0.200
5	EB03	ELECTRON	0.070 TO 0.112
9	EB05	ELECTRON	0.20 & UP
10	EBD5	ELECTRON	0.20 & UP
11	EG06	ELECTRON	0.20 & UP
12	EG07	ELECTRON	0.40 & UP
13	EG08	ELECTRON	0.70 & UP
14	EG09	ELECTRON	1.50 & UP
15	44	ELECTRON	0.35 TO 1.50
16	45	ELECTRON	2.5 & UP
17	37	ELECTRON	6.0 & UP
18	PL01	Z.GE.1	0.030 TO 0.053 (Z=1)
19	PL02	Z.GE.1	0.053 TO 0.085 (Z=1)
20	PL03	Z.GE.1	0.085 TO 0.139 (Z=1)
21	PL04	Z.GE.1	0.139 TO 0.200 (Z=1)
22	PL05	Z.GE.1	0.200 TO 0.550 (Z=1)
23	PL06	Z.GE.1	0.540 TO 1.05 (Z=1)
24	PL07	Z.GE.1	1.05 TO 2.03 (Z=1)
25	PL08	Z.GE.1	2.03 TO 4.01 (Z=1)
26	32	PROTONS	0.27 TO 0.70
27	1	PROTONS	0.48 TO 1.40
28	10	PROTONS	4.10 TO 10.0
29	11	PROTONS	10.0 TO 22.0
30	16	PROTONS	3.0 TO 19.
31	23	PROTONS	19.0 TO 31.
32	27	PROTONS	31.0 TO 150.
33	31	PROTONS	240. & UP
34	39	ALPHAS	0.075 TO 0.150
35	33	ALPHAS	0.150 TO 0.430
36	D1F1	ALPHAS	0.150 TO 1.10
37	3	ALPHAS	0.39 TO 1.50
38	4	ALPHAS	1.50 TO 3.70
39	12	ALPHAS	4.20 TO 8.90

40	13	ALPHAS	8.90 TO 21.0
41	17	ALPHAS	3.0 TO 21.
42	24	ALPHAS	21.0 TO 31.0
43	28	ALPHAS	34.0 TO 64.0
44	AL01	ALPHAS	0.98 TO 1.77
45	AL02	ALPHAS	1.77 TO 4.22
46	34	ALPHAS	0.23 TO 0.44
47	5	L-NUCLEI	0.60 TO 4.20
48	14	L-NUCLEI	5.50 TO 33.0
49	18	L-NUCLEI	4.0 TO 21.0
50	38	M-NUCLEI	0.047 TO 0.125
51	35	M-NUCLEI	0.125 TO 0.260
52	D1F2	M-NUCLEI	0.130 TO 10.
53	6	M-NUCLEI	0.440 TO 2.90
54	7	M-NUCLEI	2.90 TO 7.80
55	15	M-NUCLEI	7.80 TO 40.
56	19	M-NUCLEI	6.30 TO 10.
57	20	M-NUCLEI	10.0 TO 42.
58	25	M-NUCLEI	42.0 TO 64.
59	29	M-NUCLEI	64.0 TO 200.
60	36	H-NUCLEI	0.062 TO 0.105
61	8	H-NUCLEI	0.250 TO 2.00
62	9	H-NUCLEI	2.00 TO 13.0
63	43	H-NUCLEI	13.0 TO 74.0
64	21	H-NUCLEI	8.60 TO 21.0
65	22	H-NUCLEI	21.0 TO 86.0
66	26	H-NUCLEI	86.0 TO 125.
67	30	H-NUCLEI	125.0 & UP
68	42	MISC.	
69	42	MISC.	
70	42	MISC.	
71	42	MISC.	
72	42	MISC.	
73	42	MISC.	
74	42	MISC.	
75	42	MISC.	
76	41	MISC.	

C NEAR ENCOUNTER ONLY DATA CHANNELS			
77	ESA0	ELECTRONS	2.5 & UP
78	ESB0	ELECTRONS	8.5 & UP
79	AB10	ELECTRONS	8.5 & UP
80	DP09	IONS	0.285 TO 5.02
81	DP10	IONS	0.480 TO 2.58
82	DP11	IONS	0.725 TO 1.64
83	PD09	IONS	0.285 TO 5.25
84	PD10	IONS	0.480 TO 2.72
85	PD11	IONS	0.725 TO 1.72
86	AB12	IONS	54.0 TO 87.3
87	AB13	IONS	87.3 TO 152.
88	PSA1	IONS	15.8 TO 158.
89	PSA2	IONS	15.8 TO 49.0
90	PSA3	IONS	16.3 TO 26.2
91	PSB1	IONS	54.0 TO 174.
92	PSB2	IONS	54.0 TO 87.3
93	PSB3	IONS	54.0 TO 59.0
94	DA03	IONS Z.GE.2	0.480 TO 2.45
95	DA04	IONS Z.GE.2	0.780 TO 1.41
96	DZ01	IONS Z.GT.2	0.405 TO 18.8
97	AD03	IONS Z.GE.2	0.480 TO 2.58
98	AD04	IONS Z.GE.2	0.780 TO 1.48
99	ZD01	IONS Z.GT.2	0.400 TO 19.8
100	SPARE		
BLOCK 3: UNCERTAINTIES OF RATES [IUNCS(100,10)]			
THE FOLLOWING 1000 INTEGERS ARE UNCERTAINTIES OF THE ABOVE 1000 COUNT RATES WITH SAME SUBSCRIPTING IN UNITS OF 64*PERCENT			
BLOCK 4: SAMPLE NUMBERS [NSAMP(100,10)]			
THE FOLLOWING 1000 INTEGERS ARE NUMBER OF SAMPLES CORRESPONDING TO THE ABOVE 1000 COUNT RATES, SAME SUBSCRIPTING, IN UNITS OF BASIC ACCUM. TIME FOR MODE			

BLOCK 5: RATE RATIOS [JGAM(50)]

THE FOLLOWING 50 INTEGERS ARE RATE RATIOS, COMPUTED FROM THE SCAN AVERAGE RATES

NAME	ITEM	DESCRIPTION	EXPRESSION
	1	EB01/EB02	EXPONENT [%]
	2	EB02/EB03	EXPONENT
	3	EB03/EB04	EXPONENT
	4	EB04/EB05	EXPONENT
	5	EG06/EG07	EXPONENT
	6	EG07/EG08	EXPONENT
	7	EG08/EG09	EXPONENT
	8	PL01/PL02	EXPONENT
	9	PL02/PL03	EXPONENT
	10	PL03/PL04	EXPONENT
	11	PL04/PL05	EXPONENT
	12	PL05/PL06	EXPONENT
	13	PL06/PL07	EXPONENT
	14	PL07/PL08	EXPONENT
	15	32/1	EXPONENT
	16	1/10	EXPONENT
	17	10/11	EXPONENT
	18	16/23	EXPONENT
	19	AL01/AL02	EXPONENT
	20	39/33	EXPONENT
	21	33/3	EXPONENT
	22	3/4	EXPONENT
	23	4/12	EXPONENT
	24	12/13	EXPONENT
	25	17/24	EXPONENT
	26	38/35	EXPONENT
	27	35/6	EXPONENT
	28	6/7	EXPONENT
	29	7/15	EXPONENT
	30	19/20	EXPONENT
	31	36/8	EXPONENT
	32	8/9	EXPONENT
	33	9/43	EXPONENT
	34	21/22	EXPONENT
	35	PD09/PD10	LOG10 RATIO
	36	PD10/PD11	LOG10 RATIO
	37	PAB12/13	EXPONENT
	38	DP09/DP10	LOG10 RATIO
	39	DP10/DP11	LOG10 RATIO

[%] κ, SPECTRAL EXPONENT IN A POWER LAW FIT OF THE FORM $dj/dE = A E^{-\kappa}$

	40	AD03/AD04	LOG10 RATIO
	41	DA03/DA04	LOG10 RATIO
	42	SA2/SB2	EXPONENT
SPARE	43		
SPARE	44		
SPARE	45		
SPARE	46		
SPARE	47		
SPARE	48		
SPARE	49		
SPARE	50		

BLOCK 6: COMPOSITION RATIOS [ICOMPR(30)]

THE FOLLOWING 30 INTEGERS ARE COMPOSITION RATIOS

NAME	ITEM	CHANNELS	DESCRIPTION
	1	PL03/39	P/APLHA RATIO
	2	(PL04+PL05)/33	P/APLHA RATIO
	3	(PL06+PL07)/3	P/ALPHA RATIO
	4	1/3	P/ALPHA RATIO
	5	10/12	P/ALPHA RATIO
	6	11/13	P/ALPHA RATIO
	7	PL07/AL01	P/ALPHA RATIO
	8	PL08/ 4	P/ALPHA RATIO
	9	16/17	P/ALPHA RATIO
	10	23/24	P/ALPHA RATIO
	11	27/28	P/ALPHA RATIO
	12	39/38	ALPHA/MEDIUM
	13	33/35	ALPHA/MEDIUM
	14	(3+4)/6	ALPHA/MEDIUM
	15	12/7	ALPHA/MEDIUM
	16	13/15	ALPHA/MEDIUM
	17	17/19	ALPHA/MEDIUM
	18	(24+28)/(20+25)	ALPHA/MEDIUM
	19	D1F1/D1F2	ALPHA/MEDIUM
	20	38/36	MEDIUM/HEAVY
	21	6/8	MEDIUM/HEAVY
	22	7/9	MEDIUM/HEAVY
	23	15/43	MEDIUM/HEAVY
	24	(19+20+25)/(21+22)	MEDIUM/HEAVY
	25	PD09/AD03	PROTON/ALPHA,RAW C.R. RATIO
	26	PD10/AD04	PROTON/ALPHA,RAW C.R. RATIO
	27	AD04/ZD01	ALPHA/MEDIUM,RAW C.R. RATIO
	28	DP09/DA03	PROTON/ALPHA,RAW C.R. RATIO
	29	DP10/DA04	PROTON/ALPHA,RAW C.R. RATIO
	30	DA04/DZ01	ALPHA/MEDIUM,RAW C.R. RATIO

BLOCK 7 ANGULAR RATIOS [IANGER(20)]			
THE FOLLOWING 20 INTEGERS ARE ANGULAR DISTRIBUTION RATIOS			
NAME	ITEM	CHANNELS	DESCRIPTION
	1	(10+11)/16	FRONT/BACK RATIO PROTONS
	2	(12+13)/17	FRONT/BACK RATIO ALPHAS
	3	15/(19+20)	FRONT/BACK RATIO MEDIUMS
	4	43/(21+22)	FRONT/BACK RATIO HEAVIES
	5	EB01/EBD1	POLAR/EQUATOR ELECTRONS
	6	EB02/EBD2	POLAR/EQUATOR ELECTRONS
	7	EB03/EBD3	POLAR/EQUATOR ELECTRONS
	8	EB04/EBD4	POLAR/EQUATOR ELECTRONS
	9	EB05/EBD5	POLAR/EQUATOR ELECTRONS
	10	PD09/DP09	EQUATOR/POLAR IONS
	11	PD10/DP10	EQUATOR/POLAR IONS
	12	PD11/DP11	EQUATOR/POLAR IONS
	13	AD03/DA03	EQUATOR/POLAR ALPHAS
	14	AD04/DA04	EQUATOR/POLAR ALPHAS
	15	ZD01/DZ01	EQUATOR/POLAR MEDIUMS
SPARE	16		
SPARE	17		
SPARE	18		
SPARE	19		
SPARE	20		
BLOCK 8: RATE RATIO UNCERTAINTIES [JUGAM(50)]			
THE FOLLOWING 50 INTEGERS ARE RATE RATIO UNCERTAINTIES.			
BLOCK 9: COMP. RATIO UNCERTAINTIES [JUCOMP(30)]			
THE FOLLOWING 30 INTEGERS ARE COMPOSITION RATIO UNCERTAINTIES			
BLOCK 10: ANGR RATIO UNCERTAINTIES [IUANGR(20)]			
THE FOLLOWING 20 INTEGERS ARE ANGULAR RATIO UNCERTAINTIES			

BLOCK 11: RATE CORRECTION FACTORS [IGFLX(100)]

THE FOLLOWING 100 INTEGERS FORMS A VECTOR OF LENGTH 100 CONTAINING THE VALUES OF GAMMA USED IN CORRECTING THE COUNT RATES FOR THE FINITE PASSBAND WIDTHS IN THE DERIVATION OF THE DIFFERENTIAL FLUXES (RATE CORRECTION FACTORS). THESE MAY BE ACTUAL OR DEFAULT VALUES, DEPENDING ON THE OUTCOME OF THE ATTEMPT TO DERIVE AN ESTIMATE FROM THE COUNT RATE RATIOS. UNITS ARE $2048 * \text{GAMMA}$.

BLOCK 12: COMP. CORRECTION FACTORS [ICFACT(100)]

THE FOLLOWING 100 INTEGERS ARE COMPOSITION CORRECTION FACTORS FOR RATE CHANNELS 1-100. THESE ARE THE NUMERICAL FACTORS BY WHICH THE COUNT RATE WAS MULTIPLIED TO CORRECT IT FOR CONTAMINATION BY EXTRA SPECIES. THIS IS A NUMBER BETWEEN 0. AND 1.0 UNITS ARE $1024 * \text{FACTOR}$

BLOCK 13: FLUXES [FLUXES(100)]

THE FOLLOWING 100 REAL NUMBERS ARE FLUXES CORRESPONDING TO ITEMS 1-100 ABOVE DIFFERENTIAL FLUXES EVALUATED AT STANDARD VALUES OF THE ENERGY AND CORRECTED FOR FINITE PASSBAND WIDTHS AND CONTAMINATION BY UNDESIRED SPECIES

BLOCK 14: UNCERTS. OF FLUXES [IUFLUX(100)]

THE FOLLOWING 100 INTEGERS ARE FLUX UNCS. IN UNITS OF $64 * \text{PERCENT}$ BY EXPRESSING THE UNCERTAINTY IN UNITS OF $64 * \text{PERCENT}$ WE CAN USE AN INTEGER VARIABLE HERE. THIS HAS TWO ADVANTAGES: ONE, IT SAVES SPACE IN THE RECORD, AND TWO, REAL NUMBERS HAVE TO BE CONVERTED INTO MACHINE-DEPENDENT FORM OF INTERNAL BINARY WORD

BLOCK 15: ANGULAR RESOLUTION [ISTP(100,2)]

THE LAST ARE 100 FLOATING POINT WORDS WHICH GIVE THE ANGULAR RESOLUTION IN SECTORS FOR EACH OF THE 100 CHANNELS MEASURED.

**Voyager 1
Channel
Parameters**

V1 NEWGEN
Listing of Channel
Definitions for
Voyager 1 LECP

LECP Status Word 1

1	2	3	4	5	6	7	8	9	10
1 MS B	PWR TO LEPT DET D4		PWR ON = 1 PWR OFF = 0						
2	PWR TO LEPT DET D3		PWR ON = 1 PWR OFF = 0						
3	PWR TO LEPT DET D2		PWR ON = 1 PWR OFF = 0						
4	PWR TO LEPT DET D1C		PWR ON = 1 PWR OFF = 0						
5	PWR TO LEPT DET D1B		PWR ON = 1 PWR OFF = 0						
6	PWR TO LEPT DET D1A		PWR ON = 1 PWR OFF = 0						
7	PWR TO LEPT DETS AC VII AND VIII		PWR ON = 1 PWR OFF = 0						
8	PWR TO LEPT DETS AC V AND VI		PWR ON = 1 PWR OFF = 0						
9	PWR TO LEPT DETS AC III AND IV		PWR ON = 1 PWR OFF = 0						
10 LSB	PWR TO LEPT DETS AC I AND II		PWR ON = 1 PWR OFF = 0						

LECP Status Word 2

1	2	3	4	5	6	7	8	9	10
1 MS B	LEMPA DET LOW BIAS		PWR ON = 1 PWR OFF = 0						
2	LEMPA DET HIGH BIAS		PWR ON = 1 PWR OFF = 0						
3	D1Σ		D1Σ ON = 1 D1Σ OFF = 0						
4	PWR TO LEMPA DET B		PWR ON = 1 PWR OFF = 0						
5	PWR TO LEMPA DET DET A		PWR ON = 1 PWR OFF = 0						
6	PWR TO LEMPA DET DELTA ABD DELTA PRIME		PWR ON = 1 PWR OFF = 0						
7	PWR TO LEMPA DET		PWR ON = 1 PWR OFF = 0						
8	PWR TO LEMPA DET		PWR ON = 1 PWR OFF = 0						
9	PWR TO LEMPA DET		PWR ON = 1 PWR OFF = 0						
10 LSB	PWR TO LEMPA DET		PWR ON = 1 PWR OFF = 0						

LECP Status Word 3

1	2	3		
1 MS B	MOTOR STEP FREQ CONTROL		60 HZ = 1 50 HZ = 0	
2	SUB-COM D1 FAST (SEE NOTE 1)		SUB-COM CHNLS 44/47 WITH 1 IN GROUP 8 = 1 SEND CHNLS 13/17 IN GROUP 8	
3	STEPPER BASE SCAN MOTOR		FULL SCAN = 1 LIMIT TO STEPPER BASE POSI 2-8 = 0	

FAT #	NAME	LOW (MEV/N)	HIGH (MEV/N)	MEAN (MEV/N)	G.F. CMSQ*SR	LOGIC
1	EB01	0.015	0.037	0.020	0.00600	
2	EBD1	0.015	0.500	0.020	0.00012	
3	EB02	0.037	0.061	0.045	0.00600	
4	EBD2	0.037	0.500	0.045	0.00012	
5	EB03	0.070	0.112	0.090	0.00600	
6	EBD3	0.070	0.500	0.090	0.00012	
7	EB04	0.130	0.183	0.120	0.00600	
8	EBD4	0.130	0.500	0.120	0.00012	
9	EB05	0.200	0.500	0.200	0.00600	
10	EBD5	0.200	0.500	0.200	0.00012	
11	EG06	0.252	2.000	0.250	0.00200	
12	EG07	0.480	2.000	0.500	0.00200	
13	EG08	0.853	2.000	0.900	0.00200	
14	EG09	2.100	5.000	2.000	0.00200	
15	E44	0.350	1.500	0.500	1.31000	
16	E45	2.500	100.	2.000	1.31000	
17	E37	6.000	100.	6.000	1.31000	
18	PL01	0.030	0.053	0.025	0.04020	
19	PL02	0.053	0.085	0.050	0.04020	
20	PL03	0.085	0.139	0.100	0.04020	
21	PL04	0.139	0.200	0.150	0.04020	
22	PL05	0.200	0.550	0.250	0.04020	
23	PL06	0.540	1.050	0.600	0.04020	
24	PL07	1.050	2.030	1.000	0.04020	
25	PL08	2.030	4.010	2.500	0.04020	
26	P32	0.310	0.610	0.350	0.09750	E0E2(E3)
27	P1	0.570	0.890	0.600	0.44100	E1E2(E3)
28	P10	4.400	9.200	5.000	0.53900	E2E3(E4)
29	P11	9.200	21.	12.	0.53900	E2E3(E4)
30	P16	3.400	18.	5.	1.50000	E5E4(E3)
31	P23	22.	31.	25.	1.31000	E5E4E3(E2)
32	P27	34.	72.	50.	1.20000	E5E4E3E2
33	P31	211.	1000.	250.	1.31000	E4E3
34	A39	0.100	0.203	0.100	0.09750	E0(E2)
35	A33	0.200	0.510	0.350	0.09750	E0E2(E3)
36	A46	0.147	2.0	0.6	0.44100	"D1F1,CA"
37	A3	0.460	1.8	0.6	0.44100	E1E2(E3)
38	A4	1.900	4.0	2.5	0.44100	E1E2(E3L12)
39	A12	4.200	7.8	5.0	0.53900	E2E3(E4L23)
40	A13	7.800	21.	15.	0.53900	E2E3(E4L23)
41	A17	3.300	69.	5.	1.50000	E5E4(E3L54)
42	A24	22.	31.	25.	1.31000	E5E4E3(E2)
43	A28	33.	62.	50.	1.20000	E5E4E3E2
44	AL01	0.980	1.770	1.000	0.04020	
45	AL02	1.770	4.220	2.500	0.04020	
46	M34	0.150	0.180	0.200	0.09750	E0E2
47	L5	0.470	5.600	1.500	0.44100	E1E2(E3L12)
48	L14	5.800	28.	6.	0.53900	E2E3(E4L23)
49	L18	6.800	28.	5.	1.50000	E5E4(E3L54)
50	M38	0.072	0.150	0.100	0.09750	E0(E2)
51	M35	0.180	0.280	0.250	0.09750	E0E2(E3)
52	M47	0.124	14.300	0.250	0.44100	D1F2
53	M6	0.530	5.600	0.500	0.44100	E1E2(E3L12)
54	M7	6.170	8.600	6.000	0.44100	E1E2(E3L12)
55	M15	9.500	46.000	15.000	0.53900	E2E3(E4L23)

56	M19	6.800	10.400	6.000	1.50000	E5E4(E3L54)
57	M20	10.400	40.	15.	1.50000	E5E4(E3L54)
58	M25	48.	64.	50.	1.31000	E5E4E3(E2)
59	M29	68.	270.	70.	1.20000	E5E4E3E2
60	H36	0.099	0.140	0.100	0.09750	E0(E2)
61	H8	0.310	2.200	0.350	0.44100	E1E2(E3)
62	H9	2.300	12.	2.	0.44100	E1E2(E3)
63	H43	13.000	82.	15.	0.53900	E2E3(E4)
64	H21	9.500	18.	10.	1.50000	E5E4(E3L54)
65	H22	19.	78.	25.	1.50000	E5E4(E3L54)
66	H26	82.	120.	100.	1.31000	E5E4E3
67	H30	127.	850.	150.	1.20000	E5E4E3E2
68	AR					SINGLES
69	E0					SINGLES
70	E1					SINGLES
71	E2					SINGLES
72	E3					SINGLES
73	E4					SINGLES
74	E5					SINGLES
75	AL					SINGLES
76	ALAR					SINGLES
77	ESA0	2.500	99.999	2.500	0.49350	A-B COINC.
78	ESB0	8.500	99.999	8.500	0.94620	B 4 PI SR
79	AB10	8.500	99.999	8.500	0.05040	A-B COINC.
80	DP09	0.285	5.020	0.250	0.00084	DELTA'
81	DP10	0.480	2.580	0.600	0.00084	DELTA'
82	DP11	0.725	1.640	1.000	0.00084	DELTA'
83	PD09	0.285	5.250	0.250	0.00260	DELTA
84	PD10	0.480	2.720	0.600	0.00260	DELTA
85	PD11	0.725	1.580	1.000	0.00260	DELTA
86	AB12	54.000	87.300	50.000	0.05040	A-B COINC.
87	AB13	87.300	152.000	100.000	0.05040	A-B COINC.
88	PSA1	15.800	158.000	15.000	0.49350	A 2 PI SR
89	PSA2	15.800	49.000	25.000	0.49350	A 2 PI SR
90	PSA3	16.300	26.200	25.000	0.49350	A 2 PI SR
91	PSB1	54.000	174.000	50.000	0.94620	B 4 PI SR
92	PSB2	54.000	87.300	50.000	0.94620	B 4 PI SR
93	PSB3	54.000	59.000	50.000	0.94620	B 4 PI SR
94	DA03	0.480	2.450	0.600	0.00084	DELTA'
95	DA04	0.780	1.410	1.000	0.00084	DELTA'
96	DZ01	0.405	18.800	0.600	0.00084	DELTA'
97	AD03	0.480	2.580	0.600	0.00260	DELTA
98	AD04	0.780	1.480	1.000	0.00260	DELTA
99	ZD01	0.400	19.800	0.600	0.00260	DELTA
100	SPARE					

Voyager 2 Channel Parameters

V2NEWGEN.DOC-PASSBANDS AND GEOMETRIC FACTORS FOR VOYAGER 2 LECF (PTM)

FAT #	Name	Low (MeV/Nuc.)	High (MeV/Nuc.)	Mean (MeV/Nuc.)	Geometrical Factor (cmSQ SR)	Logic
1	EB01	0.013	0.035	0.020	0.00200	
2	EBD1	0.013	0.035	0.020	0.00200	
3	EB02	0.035	0.061	0.045	0.00200	
4	EBD2	0.035	0.061	0.045	0.00200	
5	EB03	0.061	0.112	0.090	0.00200	
6	EBD3	0.061	0.112	0.090	0.00200	
7	EB04	0.112	0.183	0.120	0.00200	
8	EBD4	0.112	0.183	0.120	0.00200	
9	EB05	0.183	0.500	0.200	0.00200	
10	EBD5	0.183	0.500	0.200	0.00200	
11	EG06	0.252	2.000	0.250	0.00200	
12	EG07	0.480	2.000	0.500	0.00200	
13	EG08	0.853	2.000	0.900	0.00200	
14	EG09	2.100	5.000	2.000	0.00200	
15	E44	0.350	1.500	0.500	1.31000	
16	E45	2.000	100.	2.000	1.31000	
17	E37	6.000	100.	6.000	1.31000	
18	PL01	0.024	0.048	0.025	0.12000	
19	PL02	0.048	0.080	0.050	0.12000	
20	PL03	0.080	0.137	0.100	0.12000	
21	PL04	0.137	0.215	0.150	0.12000	
22	PL05	0.215	0.540	0.250	0.12000	
23	PL06	0.540	0.990	0.600	0.12000	
24	PL07	0.990	2.140	1.000	0.12000	
25	PL08	2.140	3.500	2.500	0.12000	
26	P32	0.330	0.610	0.350	0.09750	E0E2 (E3)
27	P1	0.520	1.450	0.600	0.44100	E1E2 (E3)
28	P10	4.400	11.400	5.000	0.53900	E2E3 (E4)
29	P11	11.400	20.	12.	0.53900	E2E3 (E4)
30	P16	3.040	17.	5.	1.50000	E5E4 (E3)
31	P23	22.	30.	25.	1.31000	E5E4E3 (E2)
32	P27	37.	89.	50.	1.20000	E5E4E3E2
33	P31	213.	1000.	250.	1.31000	E4E3
34	A39	0.091	0.233	0.100	0.09750	E0 (E2)
35	A33	0.230	0.480	0.350	0.09750	E0E2 (E3)
36	A46	0.147	2.0	0.6	0.44100	"D1F1, CA"
37	A3	0.420	1.7	0.6	0.44100	E1E2 (E3)
38	A4	1.800	4.0	2.5	0.44100	E1E2 (E3L12)
39	A12	4.200	7.8	5.0	0.53900	E2E3 (E4L23)
40	A13	7.800	20.	15.	0.53900	E2E3 (E4L23)
41	A17	3.000	58.	5.	1.50000	E5E4 (E3L54)
42	A24	22.	30.	25.	1.31000	E5E4E3 (E2)
43	A28	31.	56.	50.	1.20000	E5E4E3E2
44	AL01	1.040	1.850	1.000	0.12000	CALC.
45	AL02	1.850	3.700	2.500	0.12000	CALC.
46	M34	0.230	0.440	0.200	0.09750	E0E2
47	L5	0.710	5.600	1.500	0.44100	E1E2 (E3L12)
48	L14	5.800	28.	6.	0.53900	E2E3 (E4L23)
49	L18	3.900	20.	5.	1.50000	E5E4 (E3L54)
50	M38	0.060	0.200	0.100	0.09750	E0 (E2)
51	M35	0.200	0.340	0.250	0.09750	E0E2 (E3)

52	M47	0.124	14.300	0.250	0.44100	D1F2
53	M6	0.470	5.200	0.500	0.44100	E1E2 (E3L12)
54	M7	5.200	8.200	6.000	0.44100	E1E2 (E3L12)
55	M15	8.600	40.000	15.000	0.53900	E2E3 (E4L23)
56	M19	6.000	9.200	6.000	1.50000	E5E4 (E3L54)
57	M20	9.600	42.	15.	1.50000	E5E4 (E3L54)
58	M25	44.	61.	50.	1.31000	E5E4E3 (E2)
59	M29	69.	270.	70.	1.20000	E5E4E3E2
60	H36	0.099	0.140	0.100	0.09750	E0 (E2)
61	H8	0.280	1.900	0.350	0.44100	E1E2 (E3)
62	H9	2.000	12.	2.	0.44100	E1E2 (E3)
63	H43	11.800	74.	15.	0.53900	E2E3 (E4)
64	H21	8.200	17.	10.	1.50000	E5E4 (E3L54)
65	H22	18.	82.	25.	1.50000	E5E4 (E3L54)
66	H26	86.	120.	100.	1.31000	E5E4E3
67	H30	127.	1000.	150.	1.20000	E5E4E3E2
68	AR					SINGLES
69	E0					SINGLES
70	E1					SINGLES
71	E2					SINGLES
72	E3					SINGLES
73	E4					SINGLES
74	E5					SINGLES
75	AL					SINGLES
76	ALAR					SINGLES
77	ESA0	2.500	99.999	2.500	0.49350	A-B COINC.
78	ESB0	8.500	99.999	8.500	0.94620	B 4 PI SR
79	AB10	8.500	99.999	8.500	0.05040	A-B COINC.
80	DP09	0.285	5.020	0.250	0.00084	DELTA'
81	DP10	0.480	2.580	0.600	0.00084	DELTA'
82	DP11	0.725	1.640	1.000	0.00084	DELTA'
83	PD09	0.285	5.250	0.250	0.00260	DELTA
84	PD10	0.480	2.720	0.600	0.00260	DELTA
85	PD11	0.725	1.580	1.000	0.00260	DELTA
86	AB12	54.000	87.300	50.000	0.05040	A-B COINC.
87	AB13	87.300	152.000	100.000	0.05040	A-B COINC.
88	PSA1	15.800	158.000	15.000	0.49350	A 2 PI SR
89	PSA2	15.800	49.000	25.000	0.49350	A 2 PI SR
90	PSA3	16.300	26.200	25.000	0.49350	A 2 PI SR
91	PSB1	54.000	174.000	50.000	0.94620	B 4 PI SR
92	PSB2	54.000	87.300	50.000	0.94620	B 4 PI SR
93	PSB3	54.000	59.000	50.000	0.94620	B 4 PI SR
94	DA03	0.480	2.450	0.600	0.00084	DELTA'
95	DA04	0.780	1.410	1.000	0.00084	DELTA'
96	DZ01	0.405	18.800	0.600	0.00084	DELTA'
97	AD03	0.480	2.580	0.600	0.00260	DELTA
98	AD04	0.780	1.480	1.000	0.00260	DELTA
99	ZD01	0.400	19.800	0.600	0.00260	DELTA
100	Spare					

NOTE: Channels 77-99 here are duplicated from Voyager 1 and should be considered nominal only