



#296

IMP H & J

COUNT RATE ENCYCLOPEDIA DATA

72-073A-03B

73-078A-03B

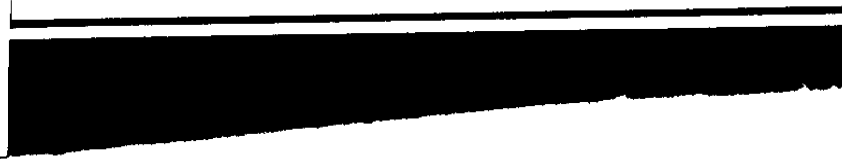


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1. INTRODUCTION:

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

IMP-H

ALL COUNT RATES ON ENCYCLOPEDIA TAPES

72-073A-03B

SPHE-00009

THIS DATA SET HAS BEEN RESTORED. ORIGINALLY THERE WERE 47 7-TRACK, 800 BPI AND 9-TRACK 1600 BPI TAPES AND NOW THERE ARE 6 9-TRACK, 6250 BPI TAPES. THE TAPES WERE CREATED ON AN IBM 360 COMPUTER. THE DR TAPES ARE ON 3480 CARTRIDGES AND THE DS TAPES ARE 9-TRACK, 6250 BPI. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND THE TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR002813	DS002813	D017273	1	09/25/72 - 09/29/72
		D017383	2	09/29/72 - 10/05/72
		D017384	3	10/05/72 - 10/12/72
		D017385	4	10/12/72 - 10/17/72
		D017386	5	10/18/72 - 10/24/72
		D017387	6	10/24/72 - 10/30/72
		D017388	7	10/30/72 - 11/06/72
		D017389	8	11/06/72 - 11/12/72
		D017390	9	11/12/72 - 11/19/72
		D017391	10	11/19/72 - 11/24/72
		D017392	11	11/24/72 - 12/01/72
		D017393	12	12/01/72 - 12/07/72
DR002821	DS002821	D017394	1	12/07/72 - 12/14/72
		D017395	2	12/14/72 - 12/20/72
		D017396	3	12/20/72 - 12/26/72
		D017397	4	12/26/72 - 01/02/73
		D017398	5	01/02/73 - 01/08/73
		D017399	6	01/08/73 - 01/14/73
		D017400	7	01/14/73 - 01/20/73
		D017401	8	01/20/73 - 01/27/73
		D017402	9	01/27/73 - 02/02/73
		D017403	10	02/02/73 - 02/09/73
		D017404	11	02/09/73 - 02/15/73
DR002822	DS002822	D017405	1	02/15/73 - 02/22/73 (a)
		D017406	2	02/22/73 - 02/28/73
		D017407	3	02/28/73 - 03/02/73
		D017408	4	03/06/73 - 03/12/73
		D017409	5	03/12/73 - 03/19/73
		D017410	6	03/19/73 - 03/25/73
		D017411	7	03/25/73 - 03/31/73
		D017412	8	03/31/73 - 04/06/73
		D017413	9	04/06/73 - 04/13/73

D024537

10

10/31/73 - 11/13/73

DR#	DS#	D#	FILES	TIME SPAN
DR002823	DS002823	D024538	1	11/13/73 - 11/25/73
		D024539	2	11/25/73 - 12/08/73
		D024540	3	12/08/73 - 12/21/73
		D024541	4	12/21/73 - 01/03/74
		D024542	5	01/03/74 - 01/15/74
		D024543	6	01/15/74 - 01/28/74
DR002824	DS002824	D024544	1	01/28/74 - 02/10/74
		D024545	2	02/10/74 - 02/23/74
		D024546	3	02/23/74 - 03/07/74
		D024547	4	03/07/74 - 03/20/74
		D024548	5	03/20/74 - 04/01/74
		D024549	6	04/01/74 - 04/14/74
DR002825	DS002825	D024550	1	04/14/74 - 04/27/74
		D024551	2	04/27/74 - 05/09/74

(a) D017405 - 3 read errors, record 7, 8, 61, File 1

IMP-J

ALL COUNT RATES ON ENCYCLOPEDIA TAPES

73-078A-03B

SPHE-00362

This data set has been restored. There were originally 15 Binary 9-Track, 1600 BPI tapes. There are 5 restored tapes. The DR tapes are 3480 cartridges and the DS tapes are 9-track, 6250 BPI. The tapes were created on an IBM 360 computer. The DR and DS numbers along with the corresponding D numbers and the time spans are as follows:

DR#	DS#	D#	FILES	TIME SPAN
DR03227	DS03227	D24649	1	10/30/73 - 11/06/73
		D24650	2	11/06/73 - 11/19/73
		D24651	3	11/19/73 - 12/02/73
DR03228	DS03228	D24652	1	12/02/73 - 12/15/73
		D24653	2	12/15/73 - 12/28/73
		D24654	3	12/28/73 - 01/11/74
DR03229	DS03229	D24655	1	01/11/74 - 01/23/74
		D24656	2	01/23/74 - 02/04/74
		D24657	3	02/04/74 - 02/17/74
DR03230	DS03230	D24658	1	02/17/74 - 03/01/74
		D24659	2	03/01/74 - 03/13/74
		D24660	3	03/13/74 - 03/26/74
DR03231	DS03231	D24661	1	03/26/74 - 04/07/74
		D24663	2	04/08/74 - 04/20/74
		D24662	3	04/20/74 - 05/02/74

REQ. AGENT

RBK

VJP

RAND NO.

RC2616

RC6381

ACQ. AGENT

JHK

IMP H & J

COUNT RATE ENCYCLOPEDIA DATA

72-073A-03B

73-078A-03B

This data set consists of 47 IMP-H and 15 IMP-J Count Rate Encyclopedia tapes. These tapes were created on an IBM 360 computer. The first 32 IMP-H tapes are 800 BPI, 7-track, with 1 file, the rest of the tapes are 1600 BPI, 9-track, with 1 file. Each logical record consists of 360 32-bit words and each physical record consists of 3 logical records.

The time spans for the tapes are as follows:

IMP-H

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-17273	C-13612	09/25/72 - 09/29/72
D-17383	C-13613	09/29/72 - 10/05/72
D-17384	C-13614	10/05/72 - 10/12/72
D-17385	C-12615	10/12/72 - 10/17/72
D-17386	C-13616	10/18/72 - 10/24/72
D-17387	C-13617	10/24/72 - 10/30/72
D-17388	C-13618	10/30/72 - 11/06/72
D-17389	C-13619	11/06/72 - 11/12/72
D-17390	C-13620	11/12/72 - 11/19/72
D-17391	C-13621	11/19/72 - 11/24/72
D-17392	C-13622	11/24/72 - 12/01/72
D-17393	C-13623	12/01/72 - 12/07/72
D-17394	C-13624	12/07/72 - 12/14/72

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-17395	C-13625	12/14/72 - 12/02/72
D-17396	C-13626	12/20/73 - 12/26/72
D-17397	C-13627	12/26/72 - 1/02/73
D-17398	C-13628	1/02/73 - 1/08/73
D-17399	C-13629	1/08/73 - 1/14/73
D-17400	C-13630	1/14/73 - 1/20/73
D-17401	C-13631	1/20/73 - 1/27/73
D-17402	C-13632	1/27/73 - 3/03/73
D-17403	C-13633	2/02/73 - 2/09/73
D-17404	C-13634	2/09/73 - 2/15/73
D-17405	C-13635	2/15/73 - 2/22/73
D-17406	C-13636	2/22/73 - 2/28/73
D-17407	C-13637	2/28/73 - 3/06/73
D-17408	C-13638	3/06/73 - 3/12/73
D-17409	C-13639	3/12/73 - 3/19/73
D-17410	C-13640	3/19/73 - 3/25/73
D-17411	C-13641	3/25/73 - 3/31/73
D-17412	C-13642	3/31/73 - 4/06/73
D-24537	C-18100	10/31/73 - 11/13/73
D-24538	C-18101	11/13/73 - 11/25/73
D-24539	C-18102	11/25/73 - 12/08/73
D-24540	C-18103	12/08/73 - 12/21/73
D-24541	C-18104	12/21/73 - 1/03/74
D-24542	C-18105	1/03/74 - 1/15/74
D-24543	C-18106	1/15/74 - 1/28/74
D-24544	C-18107	1/28/74 - 2/10/74
D-24545	C-18108	2/10/74 - 2/23/74

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-24546	C-18109	2/23/74 - 3/07/74
D-24547	C-18110	3/07/74 - 3/20/74
D-24548	C-18111	3/20/74 - 4/01/74
D-24549	C-18112	4/01/74 - 4/14/74
D-24550	C-18113	4/14/74 - 4/27/74
D-24551	C-18114	4/27/74 - 5/09/74

IMP-J

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-24649	C-18177	10/30/73 - 11/06/73
D-24650	C-18178	11/06/73 - 11/19/73
D-24651	C-18179	11/19/73 - 12/02/73
D-24652	C-18180	12/02/73 - 12/15/73
D-24653	C-18181	12/15/73 - 12/28/73
D-24654	C-18182	12/28/73 - 1/11/74
D-24655	C-18183	1/11/74 - 1/23/74
D-24656	C-18184	1/23/74 - 2/04/74
D-24657	C-18185	2/04/74 - 2/17/74
D-24658	C-18186	2/17/74 - 3/01/74
D-25659	C-18187	3/01/74 - 3/13/74
D-24660	C-18188	3/13/74 - 3/26/74
D-24661	C-18189	3/26/74 - 4/07/74
D-24662	C-18190	4/20/74 - 5/02/74
D-24663	C-18191	4/08/74 - 4/20/74

UNIVERSITY OF MARYLAND
IMP-H MAE EXPERIMENT
ENCYCLOPEDIA TAP8 FORMAT

REVISION 3

JUNE 11, 1973

The first step in IMP-H data processing consists of the generation of encyclopedia tapes from the experimenter decom tapes received from the Information Processing Division (IPD) at Goddard. The following describes the processing involved in this step:

Decom tapes are multi-filed tapes, with each file containing data from one analog tape recorded at one tracking station (approximately 2 hours of data). Since two analog tapes may be recording simultaneously and since two stations may be receiving a signal simultaneously, these files may overlap in time. This overlap will be eliminated by comparing two albums corresponding to the same time period and choosing the one with the best data quality.

PHA ID's lag the corresponding PHA channel numbers by one sequence. As each album is read from the decom tape, the ID's in fill sequences are padded as all 1 bits

(-1 in an IBM 360 halfword). This corresponds to a $P2a'' \cdot B$ event in PHA 1 and a $P3a' \cdot B$ event in PHA 2, both with an Optical Aspect sector of 7; and Sun Gate and Calibrate on. It is thus highly unlikely that this occur naturally in the data. The ID's are then shifted backward one sequence in Time so that they correspond with the correct PHA channel information, with the ID for the last sequence of the album coming from the first sequence of the following album. If the next consecutive album in time is not present, the last ID is padded.

Orbit data from the decorn tape album record corresponds to the nearest minute preceding the start time of the album. Only the orbit data that is expected to be used in later processing is included in the encyclopedia tape record.

NOTE: The McIlwain parameter, L (word 24)
and the Magnetic Field Strength, B

(Word 25) were included for use only if the spacecraft failed to achieve the desired circular orbit. These words contain zero on the tape.

The 8 bit analog performance parameters from the decom tape are converted to floating-point volts.

All readouts (except digital performance parameters) pertaining to fill data sequences are padded with all 1 bits, thus providing a means of detecting fill data on the encyclopedia tape which is more convenient than testing the data quality flags.

Data is organized according to the relative positions of the earth, sun, and spacecraft. Data corresponding to spacecraft position on the anti-solar portion of the orbit (x-coordinate of the spacecraft position in Geocentric

Solar Ecliptic Coordinates negative) will be put on separate tapes from data corresponding to spacecraft position on the solar portion (x-coordinate positive). Each tape will then contain roughly 6 to 7 days of data.

Encyclopedia Tapes are single-filed, 7 track, 800 BPI Tapes, with logical records of 360 32-bit words (1440 bytes) and physical records consisting of 3 logical records (4320 bytes). All data are binary integers in IBM 360 format except for the following:

- Orbit/Attitude data - words 14-30;
- Analog Performance Parameters - words 36-43;
- Optical Aspect Data - words 50-53,
129-132, 208-211, and 287-290.

These will be floating-point numbers in IBM 360 format.

EXPLANATORY NOTES

WORD

COMMENT

2

S/K clock at start of album. Page number (bits $2^5 2^4$), snapshot number (bits $2^3 2^2$), and sequence number (bits $2^1 2^0$) are zero.

7

First halfword - Production Flag.
0 = Quicklook, 1 = Production.

33

DP # a₂-8 ANALOG TRANSMITTER ON/OFF
One byte for each page. Each byte is of the form

$D_1 D_2 D_3 D_4 D_5 D_6 D_7 D_8$

where

$D_1 D_2$ = two redundant readouts for s.s. 0

$D_3 D_4$ = " " " " " 1

$D_5 D_6$ = " " " " " 2

$D_7 D_8$ = " " " " " 3

(s.s. = snapshot).

WORD

COMMENT

34

DP # $a_3 - 19$ OA / TM SLAVE

One byte for each page. Each byte is of the form

0000 $D_1 D_2 D_3 D_4$

where

$D_1 D_2$ = 2 redundant readouts for s.s. 1

$D_3 D_4$ = " " " " s.s. 3

If a 2-bit readout = 11 (and sequence 1 of the corresponding snapshot does not contain fill data as determined by the data quality flags), then sectoring is slaved to the telemetry. If the readout = 00 (and sequence 1 is not fill), then sectoring is slaved to the optical aspect sensor.

WORD

44

COMMENTDP # $a_3 - 18$ ULET ON/OFF

One byte for each page. Each byte is of the form

$$0000D_1D_2D_3D_4$$

where

$$D_1D_2 = 2 \text{ redundant readouts for s.s. 1}$$

$$D_3D_4 = 2 \text{ redundant readouts for s.s. 3}$$

(Readout occurs in sequence 1 of the snapshot)

45,124,
203,282

Time Quality Flags

One byte for each snapshot. Each byte contains four 2-bit integers - one for each of the four sequences in the snapshot:

$$\underbrace{D_1D_2}_{\text{Seq. 0}} \underbrace{D_3D_4}_{\text{Seq. 1}} \underbrace{D_5D_6}_{\text{Seq. 2}} \underbrace{D_7D_8}_{\text{Seq. 3}}$$

The meaning of these flags is as follows:

ValueMeaning

0

Analog time unverified.

1

Analog time verified by s/c clock.

2

Analog time in error - s/c clock used.

3

Time put with fill data - computed

WORD
 46-49,
 125-128,
 204-207,
 283-286

COMMENT
 Data Quality Flags
 One byte for each sequence, Each byte contains four 2-bit integers - one for each quarter sequence. The meaning of these flags is as follows:

<u>Value</u>	<u>Data Quality</u>
0	Excellent (Prob. of error $< 10^{-5}$)
1	Good (Prob. of error $< 10^{-4}$)
2	Fill
3	Undetermined

Since padding is done on a whole sequence basis, the byte for a fill data sequence will contain 10101010.

98,99,
 177,178,
 256,257,
 335,336

A1/A2 (R4) First and last readouts of album (words 98 and 336) are A2. Others (99, 177, 178, 256, 257 and 335) are A1.

ENCYCLOPEDIA TAPE - DATA RECORD FORMAT

REVISION 3 - JUNE 11, 1973

<u>WORD</u>	<u>HALF WORD</u>	<u>FULL WORD</u>	<u>SEQ.</u>	<u>PAGE</u>	<u>ITEM</u>
1		*	0	0	Universal Time (tenths of sec. of year)
2		*	0	0	Spacecraft Clock
3		*	0	0	Pseudo-sequence counter
4	*		0	0	Year
	*		0	0	Day of year
5	*		0	0	Month
	*		0	0	Day of month
6		*	0	0	Milliseconds of day
7	*				Production Flag
	*				Analog Tape File Number
8	*				Decom File Number
	*				Spare
9	*				Perigee count
	*				Transmission Rate (400 or 1600)
10	*				Station number
	*				Analog Tape Number
11		*			Spare
12	*				Year
	*				Day of Year
13		*			Milliseconds of Day

} Time of
Orbit
Data

<u>WORD</u>	<u>HALF WORD</u>	<u>FULL WORD</u>	<u>SEQ.</u>	<u>PAGE</u>	<u>ITEM</u>
14		*			Longitude (deg.)
15		*			Latitude (deg.)
16		*			r, radial distance from s/c to center of earth (km.)
17		*			GSE _x
18		*			GSE _y
19		*			GSE _z
20		*			GSE _x
21		*			GSE _y
22		*			GSE _z
23		*			Distance from the s/c to the moon (km.)
24		*			L - McIlwain Parameter (Earth radii)
25		*			B - Magnetic Field Strength (gamma)
26		*			Satellite-earth-sun angle, L _{sep} (deg.)
27		*			Satellite-earth-moon angle, (deg)
28		*			Spin Period (milliseconds)
29		*			Right Ascension
30		*			Declination
31	*				Type of data item indicator
	*				Day of next perigee
32		*			Milliseconds of Day, next perigee

<u>WORD</u>	<u>HALF WORD</u>	<u>FULL WORD</u>	<u>SEQ.</u>	<u>PAGE</u>	<u>ITEM</u>
33		*			DP # a ₂ -8 ANALOG XMTR ON/OFF
			0		BYTE 1 = PAGE 0
			1		" 2 = " 1
			2		" 3 = " 2
			3		" 4 = " 3
34		*			DP # a ₃ -19 OA / TM SLAVE
			0		BYTE 1 = PAGE 0
			1		" 2 = " 1
			2		" 3 = " 2
			3		" 4 = " 3
35		*			Average Sequence Time (seconds)
36		*	0		AP # 15 - H.V. Monitor (volts)
37		*	1		" " " "
38		*	2		" " " "
39		*	3		" " " "
40		*	1		AP # 42 - Thermistor (volts)
41		*	3		" " " "
42		*	1		AP # 46 - Detector Bias (volts)
43		*	3		" " " "
44		*			DP # a ₃ -18 ULET ON/OFF
			0		BYTE 1 = PAGE 0
			1		" 2 = " 1
			2		" 3 = " 2
			3		" 4 = " 3

<u>WORD</u>	<u>HALF WORD</u>	<u>FULL WORD</u>	<u>SEQ.</u>	<u>PAGE</u>
45		*		0
			0-3	
			4-7	
			8-11	
			12-15	
46		*		0
			0	
			1	
			2	
			3	
47		*	4-7	0
48		*	8-11	0
49		*	12-15	0
50		*		0
51		*		0
52		*		0
53		*		0
54		*	0	0
55		*	"	"
56		*	"	"
57		*	"	"

ITEM

Time Quality Flags:

Byte 1 = Sequences 0-3

" 2 = " 4-7

" 3 = " 8-11

" 4 = " 12-15

Data Quality Flags: (Each quarter seq.)

Byte 1 = Sequence 0

" 2 = " 1

" 3 = " 2

" 4 = " 3

Data Quality Flags: Sequences 4-7

" " " " 8-11

" " " " 12-15

Sun Time (Floating Pt. - Seconds)

Earth Width " " "

Earth Time " " "

Spin Period " " "

P2b-A1 (S1) Sector 1 (counts)

" " " 2 "

" " " 3 "

" " " 4 "

<u>WORD</u>	<u>HALF WORD</u>	<u>FULL WORD</u>	<u>SEQ</u>	<u>PAGE</u>	<u>ITEM</u>
58		*	0	0	N2b (S2) Sector 1 (counts)
59		*	"	"	" " " 2 "
60		*	"	"	" " " 3 "
61		*	"	"	" " " 4 "
62		*	4	0	P2a'· $\bar{A}1$ (S3) Sector 1 (counts)
63		*	"	"	" " " 2 "
64		*	"	"	" " " 3 "
65		*	"	"	" " " 4 "
66		*	4	0	P3b· $\bar{B}$ · $\bar{A}1$ (S4) Sector 1 (counts)
67		*	"	"	" " " 2 "
68		*	"	"	" " " 3 "
69		*	"	"	" " " 4 "
70		*	8	0	P3a'· $\bar{B}$ · $\bar{A}1$ (S5) Sector 1 (counts)
71		*	"	"	" " " 2 "
72		*	"	"	" " " 3 "
73		*	"	"	" " " 4 "
74		*	8	0	D1·D2· $\bar{A}2$ (S6) Sector 1 (counts)
75		*	"	"	" " " 2 "
76		*	"	"	" " " 3 "
77		*	"	"	" " " 4 "
78		*	12	0	P2a'· $\bar{A}1$ (S7) Sector 1 (counts)
79		*	"	"	" " " 2 "
80		*	"	"	" " " 3 "
81		*	"	"	" " " 4 "

WORD	HALF WORD	FULL WORD	Seq	PAGE	ITEM
82		*	12	0	N3b·B·A1 (S8) Sector 1 (counts)
83		*	"	"	" " " 2 "
84		*	"	"	" " " 3 "
85		*	"	"	" " " 4 "
86		*	1	0	D1·D2·A2 (R1) (counts)
87		*	5	"	" " "
88		*	9	"	" " "
89		*	13	"	" " "
90		*	3	0	P1·A1 (R2) (counts)
91		*	7	"	" " "
92		*	11	"	" " "
93		*	15	"	" " "
94		*	3	0	N1·A1 (R3) (counts)
95		*	7	"	" " "
96		*	11	"	" " "
97		*	15	"	" " "
98		*	4	0	A1/A2 (R4) (counts)
99		*	12	"	" " "
100	*		0	0	PHA 1 Channel
	*		1	"	" "
101	*		2	"	" "
	*		3	"	" "

<u>WORD</u>	<u>HALF WORD</u>	<u>FULL WORD</u>	<u>Seq.</u>	<u>PAGE</u>	<u>ITEM</u>
102	*		4	0	PHA 1 Channel
	*		5	"	" "
103	*		6	"	" "
	*		7	"	" "
104	*		8	"	" "
	*		9	"	" "
105	*		10	"	" "
	*		11	"	" "
106	*		12	"	" "
	*		13	"	" "
107	*		14	"	" "
	*		15	"	" "
108	*		0	0	PHA 2 Channel
	*		1	"	" "
109	*		2	"	" "
	*		3	"	" "
110	*		4	"	" "
	*		5	"	" "
111	*		6	"	" "
	*		7	"	" "
112	*		8	"	" "
	*		9	"	" "

<u>WORD</u>	<u>HALF WORD</u>	<u>Full WORD</u>	<u>SEQ.</u>	<u>PAGE</u>	<u>ITEM</u>
113	*		10	0	PHA 2 Channel
	*		11	"	" "
114	*		12	"	" "
	*		13	"	" "
115	*		14	"	" "
	*		15	"	" "
116	*		0	0	PHA ID's
	*		1	"	"
117	*		2	"	"
	*		3	"	"
118	*		4	"	"
	*		5	"	"
119	*		6	"	"
	*		7	"	"
120	*		8	"	"
	*		9	"	"
121	*		10	"	"
	*		11	"	"
122	*		12	"	"
	*		13	"	"
123	*		14	"	"
	*		15	"	"

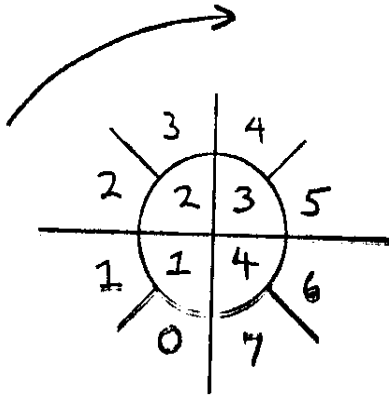
<u>WORD</u>	<u>HALF WORD</u>	<u>FULL WORD</u>	<u>SEQ.</u>	<u>PAGE</u>	<u>ITEM</u>
124-202				1	Same as words 45-123 for Page:
203-281				2	Same as words 45-123 for Page
282-360				3	Same as words 45-123 for Page

IMP-H SECTORING (MAE)



LOOKING DOWN ON NORTH
ECLIPTIC POLE.

ARROWS INDICATE DIRECTION
OF ROTATION.

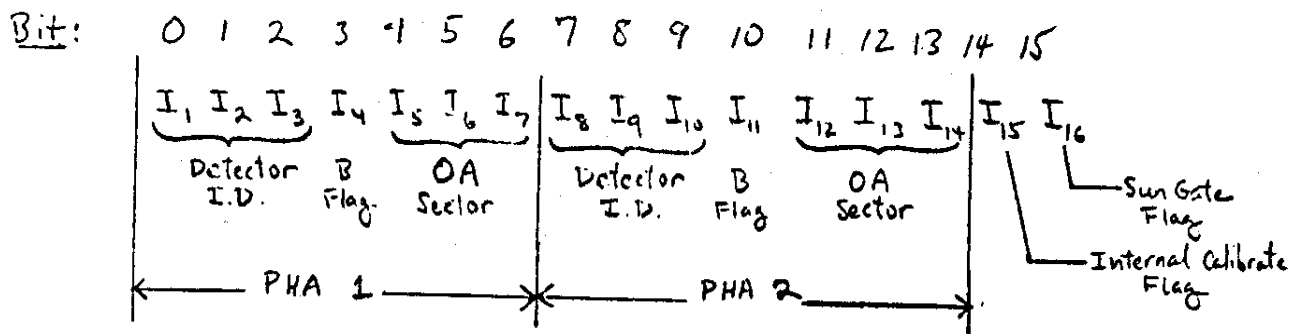


INSIDE CIRCLE = SECTORED RATE SECTORS

OUTSIDE CIRCLE = ONE'S COMPLEMENT OF SECTOR NUMBERS
FROM PHA ID.

PHA ID FORMAT (IMP-H)

The 16-bit PHA ID's contain the following information.



EVENT TYPES VS DETECTOR ID'S AND B FLAG

I_1, I_2, I_3	PHA 1 EVENT TYPE	I_8, I_9, I_{10}	PHA 2 EVENT TYPE
0 0 0 (0)	No event	0 0 0 (0)	No event
0 0 1 (1)	N1	0 0 1 (1)	P1
0 1 0 (2)	N2b	0 1 0 (2)	P2b
0 1 1 (3)	N2a	0 1 1 (3)	P3a
1 0 0 (4)	P2a	1 0 0 (4)	N3a
1 0 1 (5)	P3b	1 0 1 (5)	N3b
1 1 0 (6)	D1	1 1 0 (6)	D2
1 1 1 (7)	P2a"	1 1 1 (7)	P3a'

If the B Flag is on for a particular analyzer, the event type is found by appending "B". For example, $I_1, I_2, I_3, I_4 = 0101$ indicates a $N2b \cdot B$ (2B) event. [Exception: If $I_1, I_2, I_3, I_4 = 1101$, a D1-D2 event is signalled. If $I_8, I_9, I_{10}, I_{11} \neq 1100$ (D2), the event should be considered invalid.]

The true OA sector in which an event occurred is given by taking the one's complement of the OA sector bits for that analyzer.

0DD9CB340034148000000000 7B4010D0009001904EE1C8C00010001000100000001064000150011000000000048010D04EA

[illegible][illegible][illegible][illegible][illegible]

[illegible]

[illegible]

RECORD 2454 OF FILE
LENGTH = 2880 BYTES

[illegible]