#323

STAR CATALOGUE DATA

GA-12A, B, C, D

GA-13A, B, C, D, E, F, G, H

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

REQ. AGENT	RAND NO.	ACQ. AGENT
DLB	RC3123	TNK

STAR CATALOG DATA

This catalog consists of four 1600, binary, 9 track, variable file tapes containing Star Catalog data. Following is a list of the data sets on each tape:

D-22262	GA-12B	Henry Draper Catalogue and Extension
C17047	GA-12D	UBV Photoelectric (Naval Obs.)
	GA-13B	Kukarkin Variable Star Catalogue
	GA-13D	Stellar Radial Velocities-Wilson
D-22263	GA-12C	Yale Catalogue of Bright Stars
C-17048		
D-22264	GA-13A	Smithsonian Astrophysical Observatory
C-17049		(SAO) Catalogue
D-22265	GA-12A	Boss General Catalogue
C-17050	GA-13C	Trigonometric Stellar Parallaxes
	GA-13E	Stromgren-Perry UVBY Catalogue
	GA-13F	Spect. Binary Systems-Batten
	GA-13G	Emission Line Stars-Wackering
	GA-13H	HD-DM and DM-HD X-Ref. Catalogue

Y33

1. TITLE: YALE UNIVERSITY OBSERVATORY CATALOGUE OF BRIGHT STARS

AUTHOR:

PUBLISHER:

2. NUMBER OF STARS: 9110

ORDERED BY:

3. IDENTIFYING NUMBERS:

4. GODDARD CODE NAME: YBS

TAPE NUMBER: F00268; 9-trk;BCD tape; One(1) file; Density = 2

JCL CONSIDERATIONS:

UNIT=2400-9,LABEL=(,BLP,,OUT),DISP=(OLD,PASS),
DCB=(RECFM=FB,LRECL=169,BLKSIZE=15210),
VOLUME=SER=F00268

REMARKS: Since there were so few composite spectral class stars; they are noted with a PLUS(+) sign in Column 55.

YALE UNIVERSITY OBSERVATORY CATALOGUE
OF
BRIGHT STARS

RECORD FORMAT (By column Number)

Column	Name
1 - 4	BS=HR
5 - 7	Flamsteed Number
8 - 14	Name
15	Sign of DM No.
16 - 22	DM Number
23 - 28	H.D. Number
29 - 33	G.C. Number
34 - 37	Par. Cat. (T.P.)
38 - 43	Rad. Velocity Cat. (R.V.)
44 - 50	Double Star Cat. (DS)
51 - 58	Var. Star Cat.
59 - 60	Hrs. } R.A. (1900.0)
61 - 62	Min. } R.A. (1900.0)
63 - 64	Sec. } R.A. (1900.0)
65	Sigh A.V.
66 - 68	Annual Variation
69	Sign - Decl.
70 - 71	Deg. } Decl. (1900.0)
72 - 73	Min. } Decl. (1900.0)
74 - 76	Deg. } Galactic Long.
77 - 78	Min. } Galactic Long.
79	Sign Gal. Lat
80 - 81	Deg. } Galactic Lat.
82 - 83	Min } Galactic Lat.
84 - 87	BS=HR
88 - 89	Hrs. } R. A. (2000)
90 - 91	Min. } R. A. (2000)
92 - 93	Sec. } R. A. (2000)
94	Sign Δ R.A. (2000-1900)
95 - 96	Min. } Δ α 100 yr.
97 - 98	Sec. } Δ α 100 yr.
99	Sign of Dec. (2000)
100 - 101	Deg.
102 - 103	Min. Dec. (2000)
104	Sign of Δ δ 100 yr.
105 - 106	Δ δ (min.)
107	Sign (if minus (-) mag.)
108 - 110	Visual Mag.
111 - 112	V. Source
113	Sign of Color
114 - 116	B - V
117 - 138	Spectral Class (If composite spectral Class PLUS (+) in Col. 138)

YALE UNIVERSITY OBSERVATORY CATALOGUE
OF
BRIGHT STARS

CONT'D. - RECORD FORMAT (By Column Number)

Column	Name
139	Sign
140 - 143	Proper Motion (R. A.)
144	Sign
145 - 148	Proper Motion in Decl.
149	Sign of Parallax
150 - 153	Parallax
154	Sign of Radial Velocity
155 - 159	Radial Velocity
160 - 169	Double Star Data

UBV

F00115

UBV

2-16-73
Jeff Douglas
Naval Obs.

TAPE FORMAT
GENERAL DESCRIPTION
PRNC • NOBSY • 5330/4

FILE NUMBER: 1 (Photoelectric Catalogue)

PARITY	DENSITY	MODE
Even	800 bytes per inch	☐ L ☐ H
RECORD LENGTH	**BLOCKING FACTOR**	**REC. MARKS**
100 bytes	100	☐ YES ☐ NO

HEADER LABEL (Characters)	TRAILER LABEL (Characters)
None	None

POSITIONS	CONTENTS	POSITIONS	CONTENTS

REMARKS

There are four cases where spectral data is carried into adjacent fields. For "wd__wk", "wd__s", and "wd__4670" the "wd" is contained in the Mt. Wilson Luminosity field and the "wk", "s", or "4670" in the MK Luminosity Class field. The fourth case is for the central star of a planetary nebula. In that case "CTR ST" appears in the MK Luminosity Class field of the primary and "PL NEB" appears in the Spectral Type Pecularities field of the primary.

F00115

FILE NAME: No. 1 (Photoelectric Catalogue)

01		51		01		51	
02	Running	52	(U-B)	02		52	
03	Number	53		03		53	
04		54		04		54	
05		55		05		55	
06		56		06		56	
07		57	$(U-B)_c$	07		57	
08		58		08		58	
09		59		09		59	
10	Star Name	60	Mt. Wilson	10		60	
11		61	Luminosity	11		61	
12		62	Spectral	12		62	
13		63	Type	13		63	
14		64	Sub-Class	14		64	
15		65	Sub-Sub Class	15		65	
16		66		16		66	
17		67	MK	17		67	
18	Binary	68	Luminosity	18		68	
19	Components	69	Class	19		69	
20		70		20		70	
21	h	71		21		71	
22	R.A.	72		22		72	
23	(1900.0)	73	Spectral	23		73	
24	m	74	Type	24		74	
25	sign	75	Pecularities	25		75	
26		76		26		76	
27	Dec.	77		27		77	
28	o (1900.0)	78	Mt. Wilson	28		78	
29	'	79	Luminosity	29		79	
30		80	Spectral	30		80	
31	Galactic	81	Type	31		81	
32	Long.	82	Sub-Class	32		82	
33	(l^{II})	83	Sub-Sub Class	33		83	
34	(1950.0)	84		34		84	
35	sign	85	MK	35		85	
36	Galactic	86	Luminosity	36		86	
37	Lat.	87	Class	37		87	
38	(b^{II})	88		38		88	
39	(1950.0)	89		39		89	
40	Note (*)	90		40		90	
41		91	Spectral	41		91	
42	V	92	Type	42		92	
43		93	Pecularities	43		93	
44		94		44		94	
45	sign	95		45		95	
46		96		46		96	
47	(B-V)	97	Reference	47		97	
48		98	Number	48		98	
49		99		49		99	
50	sign	100	Blank	50		00	

TAPE FORMAT
GENERAL DESCRIPTION
FORC • HOBSY • 5210/4

FILE NUMBER
2 (Remarks)

PARITY	DENSITY	MODE
Even	800 bytes per inch	☐ L ☐ M
RECORD LENGTH	**BLOCKING FACTOR**	**REC. MARKS**
200 bytes	50	☐ YES ☐ NO

HEADER LABEL (Characters)	TRAILER LABEL (Characters)
None	None

POSITIONS	CONTENTS	POSITIONS	CONTENTS

REMARKS

If the separation field contains only a 1, then the separation of the binary is less than 1".

U.S. NAVAL OBSERVATORY TAPE FORMAT

FILE NAME: No. 2 (Remarks)

01		51		101		151	
02		52		02		52	
03		53		03		53	
04		54		04		54	
05	Star Name	55		05		55	
06		56		06		56	
07		57		07		57	
08		58		08		58	
09		59		09		59	
10		60		10		60	
11		61		11		61	
12	Binary	62		12		62	
13	Components	63		13		63	
14		64		14		64	
15	Separation	65		15		65	
16	(")	66		16		66	
17	Δm	67		17		67	
18		68		18		68	
19		69		19		69	
20		70		20		70	
21	ADS Number	71		21		71	
22		72		22		72	
23		73		23		73	
24		74		24		74	
25	Comment	75	Comment	25	Comment	75	Comment
26		76	(cont.)	26	(cont.)	76	(cont.)
27		77		27		77	
28		78		28		78	
29		79		29		79	
30		80		30		80	
31		81		31		81	
32		82		32		82	
33		83		33		83	
34		84		34		84	
35		85		35		85	
36		86		36		86	
37		87		37		87	
38		88		38		88	
39		89		39		89	
40		90		40		90	
41		91		41		91	
42		92		42		92	
43		93		43		93	
44		94		44		94	
45		95		45		95	
46		96		46		96	
47		97		47		97	
48		98		48		98	
49		99		49		99	
50		100		150		200	

GENERAL DESCRIPTION
PRNC • NORSY • 3330/4

FILE NUMBER
3 (References)

PARITY	DENSITY	MODE
Even	800 bytes per inch	☐ L ☐ M
RECORD LENGTH	**BLOCKING FACTOR**	**REC. MARKS**
303 bytes	33	☐ YES ☐ NO

HEADER LABEL (Characters)	TRAILER LABEL (Characters)
None	None

POSITIONS	CONTENTS	POSITIONS	CONTENTS

REMARKS

FILE NAME: No. 3 (References)

01		51		101		151	
02	Reference	52		02		52	
03	Number	53		03		53	
04		54		04		154	
05		55		05		55	
06		56		06		56	
07		57		07		57	
08		58		08		58	
09		59		09		59	
10		60		10		60	
11		61		11		61	
12		62		12		62	
13		63		13		63	
14		64		14		64	
15		65		15		65	
16		66		16		66	
17		67		17		67	
18		68		18		68	
19		69		19		69	
20		70		20		70	
21		71		21		71	
22	Author (s),	72	Author (s),	22	Author (s),	72	Title
23	Date,	73	etc.	23	etc.	73	of
24	Volume Name,	74	(cont.)	24	(cont.)	74	Paper
25	Vol. Number,	75		25		75	
26	Page	76		26		76	
27		77		27		77	
28		78		28		78	
29		79		29		79	
30		80		30		80	
31		81		31		81	
32		82		32		82	
33		83		33		83	
34		84		34		84	
35		85		35		85	
36		86		36		86	
37		87		37		87	
38		88		38		88	
39		89		39		89	
40		90		40		90	
41		91		41		91	
42		92		42		92	
43		93		43		93	
44		94		44		94	
45		95		45		95	
46		96		46		96	
47		97		47		97	
48		98		48		98	
49		99		49		99	
50		100		150		200 to 303	

RV

1. TITLE: GENERAL CATALOGUE OF STELLAR RADIAL VELOCITIES

AUTHOR: Ralph Elmer Wilson

PUBLISHER: Carnegie Institution of Washington, Publication 601, Washington, D.C. 1953

2. NUMBER OF STARS: 15,106

ORDERED BY: Ascending Right Ascension (1950) (xx^h xx^m $.x^s$)

3. IDENTIFYING NUMBERS: RV, GC, HD

4. GODDARD CODE NAME: RV

TAPE NUMBER = F00120; 9-Track

JCL CONSIDERATIONS:

UNIT = 2400-9, LABEL = (1,NL),
VOL = SER = F00120, DCB = (RECFM = FB,
LRECL = 92, BLKSIZE = 9200)

REMARKS: The original LRECL on tape was 84. We added a Goddard counter to this tape as 18, therefore, LRECL = 92.

5. RECORD FORMAT:

1-8	Goddard Count No.	
10-14	GC CAT. NO.	
17-21	Wilson CAT. NO.	
23-28	HD CAT. NO.	
30-31	hr.	Right Ascension
33-35	min.	
36-39	deg.	Declination
41-42	min.	
44-48	magnitude	
50-54	P.M.	(X"XXX)
56-57		SPECTRUM
59		
61		
63-64		
68-72	Vel. (km/sec)	
74	N = Notes	
76-81	Galactic Longitude (deg)	
83-88	Galactic Latitude (deg)	

4 blank records at end of each record makes LRECL = 92.

TP

F00401

U. S. NAVAL OBSERVATORY TAPE FORMAT

GENERAL DESCRIPTION

FILE NAME Yale Catalogue of Stellar Parallaxes

PARITY Even DENSITY 9 TR / 800 ~~556~~ per inch MODE: L____ M____

RECORD LENGTH 80 ch BLOCKING FACTOR _____ REC. MARKS _____

LEADER LABEL (____ characters)

Positions	Contents
1-49	YALE CATALOGUE OF TRIGONOMERIC STELLAR PARALLAXES

TRAILER LABEL (____ characters)

Positions	Contents

REMARKS:

This tape is recorded in card image as per attached format

CODE FORM
PRAC-NOBSK-13% (Rev 7/56)

DATE

FILE: File

DIVISION:

TITLE: Stellar Parallaxes, General Catalogue of

COL.	DESCRIPTION	REMARKS
	STAR NO.	DM - IF BLANK PUNCH BLANK
	+ or −	* MAG - IF NOT UNDERSCORED, PUNCH V in COL 27 IF UNDERSCORED PUNCH P IN COL 27
	0	
10	DM	
	h	VAR MAG PUNCH COL 23-26 BLANK AND COL 27 X
	α	
	m	WHEN COL 26 BLANK PUNCH X
	+ or −	
20	0	SP TYPE - PUNCH AS IT APPEAR IN BOOK
	δ	
	1	
	+ or −	
	MAG.	HD - IF BLANK PUNCH BLANK
*	V or P	
	SP TYPE	
30		
	HD	μ CAT. - PUNCH AS WRITTEN, INCLUDING COMMA
40	μ CAT.	μ_α + μ_δ - PUNCH BLANK COLS. XXXXX
	+ or −	WHEN COL 50 OR 55 BLANK PUNCH X
	μ_α	
50		
	+ or −	Col 62 Number double stars are numbered 1, 2, 3 etc
	μ_δ	
	+ or −	
	ABS π	
60	PE π	
	number	
70		
80		

#4097 μ_δ +10.27

SP

1. TITLE: PHOTOELECTRIC UVBY PHOTOMETRY FOR 1217 STARS BRIGHTER THAN V= 6.5, Mostly of Spectral Classes A,F and G.

AUTHOR: BENGT STRÖMGREN and CHARLES PERRY

PUBLISHER: Institute for Advanced Study, Princeton, New Jersey

2. NUMBER OF STARS: 1217

3. IDENTIFYING NUMBERS:

4. GODDARD CODE NAME: SP

TAPE NUMBER: F00267; 9-track; one file; Den=2

JCL CONSIDERATIONS

```
UNIT=(2400-9,,DEFER),LABEL=(,BLP),DISP=OLD,
DCB=(RECFM=FB,LRECL=80,BLKSIZE=7200),
VOLUME=SER=F00267
```

STROMGREN-PERRY CATALOGUE

RECORD FORMAT(By Column No.)

Column:	Name:
1 - 4	SP No.
5 -21	Name
22 -25	HR
27 -28	Hr. } α (1950.0)
30 -33	Min. }
35	Sign - Decl.
36 -37	Deg. } δ (1950.0)
39 -40	Min. }
41	Sign
42 -44	V Mag.
46 -51	b-y
53	Sign
54 -58	M_1
61 -65	C_1
67 -68	n
69-80	blank

HD + HDE

1. TITLE: HENRY DRAPER CATALOGUE AND EXTENSION

~~AUTHOR:~~

PUB~~LISHER~~:

2. NUMBER OF STARS: 272,150 (HD = 225,300; HDE = 46,850)

ORDERED BY: increasing Right ascension of Position:
EPOCH 1900.0

3. IDENTIFYING NUMBERS: HD, DM

4. GODDARD CODE NAME: HD

TAPE NUMBER: F00038; 9-trk; BCD tape; One (1) file; Density = 3

JCL CONSIDERATIONS: 9 ~~trk~~ track, BCD tape, 1 file, Den = 2

~~UNIT=2400-9,LABEL=(,BLP),DISP=OLD,PASS,~~
~~VOLUME=SER=F00038,~~ VOL=SER=F00038,
DCB=(RECFM=FB,LRECL=44,BLKSIZE=3960) ~~DEN=3)~~

REMARKS: This tape does not have a Goddard Count Number on it. It is an identical copy of Tape No. F00112 - Naval Observatory Tape except DEN = 3 on F00038, whereas ~~DEN = 2~~ on original.

5. TAPE SOURCE: Naval Observatory (6-20-72)

HENRY DRAPER CATALOGUE AND EXTENSION

RECORD FORMAT (By Column Number)

Column	Name
1 - 6	HD Number
7	1 or 0 (zero)[1]
8 - 12	D. M. Number
13	A or B[2]
14 - 15	Hrs.
16 - 18	Min. (XX.X) R. A. (1900.0)
19	Sign[3] note & instead of +
20 - 21	Deg. Declination (1900.0)
22 - 23	Min.
24	1 or 0 (zero)[1]
25	Sign or blank[4]
26 - 29	Ptm. Mag. (XX.XX)
30	C or blank[5]
31	1 or 0 (zero)[1]
32	Sign or blank[4]
33 - 36	Ptg. Mag. (XX.XX)
37	C or blank[5]
38 - 41	Spectral Class[6]
42 - 43	Intensity
44	Remarks[7]

REMARKS:

1 Italics in Cols. 7, 24,31
1 = Italics
0 = Non-Italics

2 Column - 13 - If two HD stars have the same DM No., 1st star is punched "A"; 2nd star punched "B"

4 Column 25 & 32 - Only two (2) stars have minus (-) mag; all others are blank ( ).

5 Column 30 & 37 - If information in catalogue is printed between two lines, punch same numbers for both stars and punch C in Col. 30 and 37 to indicate combined magnitudes.

REMARKS: (Continued)

6 Sp - Col. 38 to 41 - Punch first letter of printed Sp in Col. 38.

7 Remarks: Col. 44. - If letter, or letter and number are given, punch only the letter.
If number only, or number and -, punch M (means more than one plate).
If "R" in any field (except as spectral class) punch R in Column 44.

*Both magnitude fields can contain literals, e.g.,
VAR
NEB
CL

3 (col. 19 = sign of decl. can be + or -)

KP

1. TITLE: KUKARKIN - PARENAGO or (VARIABLE STAR CATALOGUE)

AUTHOR:

PUBLISHER:

2. NUMBER OF STARS: 17,147

ORDERED BY:

3. IDENTIFYING NUMBERS:

4. GODDARD CODE NAME: KP

TAPE NUMBER = F00073; 9-track BCD Tape, ONE FILE, DENSITY = 3

JCL CONSIDERATIONS:

UNIT = 2400-9, LABEL = (1, BLP), DISP = OLD,
VOL = SER = F00073,
DCB = (RECFM = FB, LRECL = 88, BLKSIZE = 8800,
DEN = 3)

REMARKS: 88 Constellations, Listed in this series

R - Z
RR - ZZ
AA - ZZ

V Numerical - V--- (numerical)

07 etc., series

Note: I inserted a Goddard Count No. on this tape.

RECORD FORMAT(By Column No,)

Column:	Name:
1 - 8	Goddard Count No.
9 - 16	Constellation and Description
17 - 18	RA - Hrs.
19 -20	RA - Min. 1900.0
21 - 22	RA - Sec.
23	Sigh of Decl (+ or -)
24 - 28	Declinstion - 1900.0
29	Sign
30 - 33	Precess 1900.0
34	Sign
35 - 38	Precess 1900.0
39 - 41	l
42	Sign Gal. Coord.
43 - 44	b
45 - 48	Type Variability
49 -53	Max. Magnitude
54 - 59	Min. Magnitude
60	P,V or B
61 - 69	Epoch
70 - 78	Period
80 - 82	Bright Eclipse Duration
83	Note 5
84 - 88	Spec

Mtes: COL 45-48 - Type of VARIable

SEE OLD DOCUMENTATION, EXCEPT ADD 8 to COLUMN No.
SINCE A Counter was Added to this tape.

BAT

1. TITLE:

AUTHOR:

PUBLISHER:

2. NUMBER OF STARS: 737

ORDERED BY:

3. IDENTIFYING NUMBERS:

4. GODDARD CODE NAME: BATTEN OR BAT

JCL CONSIDERATIONS:

DD UNIT=2400-9,LABEL=(,NL) (,BLP),VOL=SER=~~F00118,~~ ~~F00270~~ F00271
DCB=(RECFM=FB,LRECL=130,BLKSIZE=6500)

REMARKS:

9-track, one file; Den=2

Note: Read work notes containing information on Col 71, SPECTRAL class, before continuing, you may want to use F00075. which will have same JCL considerations as this tape.

1-23-73

BATTEN CATALOGUE

RECORD FORMAT(By column No.)

Column:	Name:
1 - 4	Batten Serial No.
5 - 17	H. D. No.
18 - 26	B.D. No.
27 - 44	Alternative Designations, Usually a Bayer, Flamsteed or Variable Star Designation. If there is an * on this line, the system is eclipsing.
45 - 50	Blank
51 - 53	Catalogue Number
54 - 55	R.A. Hrs.
56 - 58	R.A. Min.
59 - 61	Dec. Deg.
62 - 63	Dec. Min.
64	"-" indicates uncertainty of Magn. Range
65	"-" indicates Decimal Shifted one to right
66 - 68	Magnitude
69	"*" indicates Double lined spectrum
70	Code for Spectral Features (See Last Page)
71 - 79	Code for Spectral Type (See Last Page)
80	Scale Factor for Period
81 - 86	p1 = Period in days(operated on by scale factor, eg $p = p^1 \times 10^z$ where z is given in Column 30)
87 - 93	Time of Periastron Passage in J.D. +,2,400,000
94	Blank Column
95 - 98	Longitude of Periastron in Degrees
99	Blank Column
100 - 102	Eccentricity
103 - 107	K1 (Primary)
108 - 112	K2 (Secondary)
113	Blank Column
114 - 119	VO
120	Quality of Orbit (See Last Page)
121 - 123	Inclination in Degrees
124	"*" Referes to H Parallax
125 - 127	Parallax
128 - 130	ΔM

COLUMN:

		0	1	2	3	4	5	6	7	8	9
1.	20, 25		d	g	c	5d					
2.	21,26		Q	B	A	F	G	K	M		
3.	22, 27	0	1	2	3	4	5	6	7	8	9
4.	23, 28		I	II	III	IV	V				
5.	24, 29		e	nn	S	P	m	f	pe	n	
6.	70		a	b	c	d	e				

LEGEND:

1,5 spectrum code
2. main spectral class
3. spectral sub-class
4. luminosity class
6. quality of orbit

GC

1. TITLE: BOSS GENERAL CATALOGUE

~~AUTHOR:~~

~~PUBLISHER:~~

2. NUMBER OF STARS: 33342

ORDERED BY: increasing Right ascension
Epoch of Positions: 1950

3. IDENTIFYING NUMBERS: GC, ~~HD~~, DM, HD

4. GODDARD CODE NAME: ~~BOSS OB~~ GC

TAPE NUMBER: F00272; 9-trk; ~~BCD tape; one (1) file;~~
Density=2

JCL CONSIDERATIONS: 9 track, BCD tape, 1 file, Den=2, NL

~~DD UNIT=(2400-9,,DEFER),LABEL=(,BLP,,IN),~~
DCB=(RECFM=FB,LRECL=132,BLKSIZE=13200),
~~DISP=(OLD,PASS),VOL=SER=F00272~~ ok

~~REMARKS:~~

BOSS GENERAL CATALOGUE

RECORD FORMAT (By Column Number)

Column:	Name:
2 - 6	G.C. Number 1 - 33342
8	Sign of Mag.
9 - 12	Magnitude (or VAR) (XX.XX) ~~(dec. implied)~~
14 - 16	Spectral Type (Note 2)
18 - 19	Hr.
21 - 22	Min. R.A. (1950.0)
24 - 29	Sec. (XX.XXX) ~~(dec. implied)~~
31 - 34	Epoch of R. A. (XX.X)
36 - 41	A.V. in R. A. (Note 3) ~~(4 dec.)~~ (XX.XXXX)
43 - 47	S.V. in R. A. (Note 3) ~~(4 dec.)~~ (XX.XXXX)
49 - 52	3rd. term R.A. (Note 3) ~~(2 dec.)~~ (X.XXX)
54 - 59	P. M. In R.A. (X.XXXX)
60 - 62	Deg.
64 - 65	Min. Decl. (1950.0)
67 - 71	Sec. (XX.XX)
73 - 76	Epoch of Decl. (XX.X)
77 78 - 82	A.V. In Decl. ~~(3 dec.)~~ Note 3 (XX.XXX)
84 - 87	S. V. In Decl. (Note 3) ~~(3 dec.)~~ (±.XXX)
89 - 91	3rd term Decl. (note 3) ~~(2 dec.)~~ ~~(±.XXX)~~ (±.XX)
93 - 97	P. M. in Decl. (±.XXX)
99	Remarks (Note 4)
101 - 103	Deg. DM
105 - 109	Seq. ~~BD~~ Number
111 - 117	Galactic Longitude (deg.) (XXX.XXX)
119 - 125	Galactic Latitude (deg.) (±XX.XXX)
127 - 132	Draper Number (HD Number)

Blanks: Col. 1, 7, 13, 17, 20, 23, 30, 35, 42, 48, 53, 63, 66, 72, 78, 83, 88, 92, 98, 100, 104, 110, 118, 126

NOTES:

Note 2. Code for Spectral Type

COL 14	COL 15	COL 16
R=0	0 or a = 0	c=0
Oe5=1	1 or b = 1	v=1
O=2	2 or c = 2	e=2
B=3	3 or d = 3	*=3
A=4	4 or e = 4	n=4
F=5	5 = 5	Note=5
G=6	6 = 6	*p=6
K=7	7 = 7	ep=7
M=8	8 = 8	cp=8
N=9	9 = 9	cv=9
S=x		p=-

Except for Mb,Mc,Nb, where b=3,c=8; A "5" in Column 16 has been used to identify the following exceptions:

Star 89, Type Md - Punched 8~~0~~5
7178, Type n? - Punched 9~~0~~5
14298, Type pe - Punched ~~xy~~5

Note 3. When the number of figures to the left of the decimal point exceeds the space on the card (including sign column), the decimal point is shifted to the right on the card, and the number of X punches to the right of the sign Column shows the number of Columns that the decimal point has been shifted.

~~e.g. Col 83.84 85 86~~

over

+
- X
1 2. 3 4

Note 4. Col 99 REMARKS:

0 =	No Remark Given	5 =	1 + 2	
1 =	Spectrum Given	6 =	1 + 3	
2 =	Aitken or Innes No. Given	7 =	1 + 4	
3 =	Aitken or Innes No. Given Each Component having Separate G.C. Nos	8 =	2 + 4	
		9 =	3 + 4	
		- x =	1 + 2 + 4	
4 =	Other Information Given	+ y =	1 + 3 + 4	

SAO

1. TITLE: SMITHSONIAN ASTROPHYSICAL OBSERVATORY STAR CATALOGUE

AUTHOR: Staff of Smithsonian Astrophysical Observatory

PUBLISHER: Smithsonian Institution, Washington, D.C., 1966

2. Number Of Stars: 258,997
Ordered by: Right Ascension within 10-degree bands of Declination (beginning with $=80^0$ - band)

3. IDENTIFYING NUMBERS: DM, Source Catalogue

4. GODDARD CODE NAME: SAO

TAPE NO.: ~~F00269~~ F00405

JCL CONSIDERATIONS:

```
UNIT=(2400-9,,DEFER),LABEL=(,BLP),DISP=OLD,
DCB=(RECFM=VBS,LRECL=140,BLKSIZE=7004,DEN=3),
VOL=SER=F00269 F00405
```

REMARKS: one tape (1 file), Northern and Southern Hemispheres, negative zeros are corrected
NON-FORMATTED TAPE

SAMPLE READ STATEMENT:

```
READ(10) ICNT,IRAHR,IRAMIN,RASEC,RAPM,SIGPMA,RAEP,SIGAEP,
         EPRA,DSIGN,IDDEG,IDMIN,DSEC,DECPM,SIGPMD,DECEP,SIGDEP,EPDEC,
         SIGPOS,PGMAG,VMAG,SP,CODE10,CODE20,CODE30,CODE40,CODE51,
         CODE52,CODE60,CODE70,CATLG,STARNO,SIGNDM,DMZONE,DMNO
```

SAMPLE WRITE and FORMAT STATEMENT:

SAME WRITE STATEMENT AS ABOVE READ SAMPLE

```
FORMAT(1X,I6,2I3,F7.3,F7.4,I3,F7.3,I3,F5.1,A1,2I3,F6.2,F6.3,I3,F7.2,
       I3,F5.1,I3,2F6.2,A4,4I2,4I1,I3,I6,A1,I2,I5)
```

VARIABLE	LENGTH IN BYTES	NAME
ICNT	INTEGER*4	Goddard Counter
IRAHR	INTEGER* 4	Hrs. } Right Ascension (α $\widehat{1950}$)
IRAMIN	INTEGER* 4	Min. } Epoch 1950.0
RASEC	REAL* 4	Sec. }
RAPM	REAL* 4	Proper Motion in R.A. (μ) in seconds
SIGPMA	INTEGER* 4	Standard Deviation of proper motion ($\sigma\widehat{\mu}$
RAEP	REAL* 4	Seconds of R.A. at original Epoch ($\alpha\widehat{2}$)
SIGAEP	INTEGER* 4	Standard Deviation (σ) of ($\alpha\widehat{2}$)
EPRA	REAL* 4	Epoch of ($\alpha\widehat{2}$)
DSIGN	LOGICAL* 1	Sign
IDDEG	INTEGER*4	Deg. } Declination (δ $\widehat{1950}$)
IDMIN	INTEGER* 4	Min. }
DSEC	REAL* 4	Sec. }
DECPM	REAL* 4	Proper Motion in Declination (μ')
SIGPMD	INTEGER* 4	Standard Deviation ($\sigma\widehat{\mu}$)
DECEP	REAL* 4	Seconds of Decl. at Original Epoch ($\delta\widehat{2}$)
SIGDEP	INTEGER* 4	Standard Deviation (σ') of $\delta\widehat{2}$)
EPDEC	REAL* 4	Epoch of $\delta\widehat{2}$
SIGPOS	INTEGER* 4	Standard Deviation of position (σ $\widehat{1950}$)
PGMAG	REAL* 4	Photographic Magnitude ($m_{\widehat{pg}}$)
VMAG	REAL* 4	Visual Magnitude ($m_{\widehat{v}}$)
SP	REAL* 4	Spectral Type
CODE10	INTEGER*4	Source of Visual Magnitude
CODE20	"	Star Number and Footnotes
CODE30	"	Source of Photographic Magnitude
CODE40	"	Proper Motion
CODE51	"	Spectral Type
CODE52	"	Miscellaneous
CODE60	"	Accuracy of Visual Magnitude
CODE70	"	Accuracy of Photographic Magnitude
CATLG	INTEGER* 4	Source Catalogue
STARNO	INTEGER* 4	Star Number in Source Catalogue
SIGNDM	LOGICAL* 1	Sign of DM Zone
DMZONE	INTEGER* 4	DM Zone
DMNO	INTEGER* 4	DM Number

$m_{\widehat{v}}$ Indicates subscript v, as m_v , 1950

33
4
13^2_2
(134)

138

BLASIRES 13804

V. Combined Data *(continued)*

CATALOGUE DESIGNATION	REFERENCE	CONTENTS	NUMBER OF RECORDS	REMARKS
SPACE VELOCITY CATALOGUE / 8 /	EGGEN O.J., 1962 ROYAL OBSERVATORY BULLETIN N° 51	HD/GC/name B-V/U-B/V spectral type/radial velocity μ_α, μ_δ U/V/W DU/DV/DW distance modulus	3 483	

VI. Miscellaneous

CATALOGUE OF PHOTOMETRIC SEQUENCES / 1 /	ARGUE A.N. and BOK B.J., 1973 MIMEOGRAPH ARIZONA UNIVERSITY	α, δ (1950.0) l, b field $\Delta\alpha$, $\Delta\delta$ number of stars range in V magnitude photometric system references	412	
BIBLIOGRAPHICAL STAR INDEX / 2 /	CAYREL R., JUNG J. and VALBOUSQUET A., 1974 STRASBOURG INFORMATION BULLETIN N° 6	2 files -exhaustive title of references and running number -star designation (HD/DM/Miscellaneous) and list of running numbers in the file of references	4 850 43 000	The B.S.I. is developed at MEUDON and at STRASBOURG The present figures refer to the 1974 version, covering the period 1951 to 1970 inclusively

```
IEF285I   SYS1.FORTLIB                                    KEPT
IEF285I   VOL SER NOS= K3SYS6.
IEF285I   SYS2.FORTLIB                                    KEPT
IEF285I   VOL SER NOS= K3SYS2.
IEF285I   SYS1.PLILIB                                     KEPT
IEF285I   VOL SER NOS= K3SYS6.
IEF285I   SYS1.FORTSSP                                    KEPT
IEF285I   VOL SER NOS= K3SYS2.
IEF285I   SYS2.COBLIB                                     KEPT
IEF285I   VOL SER NOS= K3SYS6.
IEF285I   SYS1.ALGLIB                                     KEPT
IEF285I   VOL SER NOS= K3SYS6.
IEF285I   SYS75059.T130821.RV000.YZJRJDH3.LOADMOD         PASSED
IEF285I   VOL SER NOS= K3SCR2.
IEF285I   SYS75059.T130821.SV000.YZJRJDH3.R0000639        SYSOUT
IEF285I   VOL SER NOS= K3SCR2.
IEF285I   SYS75059.T130821.SV000.YZJRJDH3.R0000640        SYSOUT
IEF285I   VOL SER NOS= K3SCR3.
IEF285I   SYS75059.T130821.RV000.YZJRJDH3.R0000641        DELETED
IEF285I   VOL SER NOS= K3SCR3.
IEF285I   SYS75059.T130821.RV000.YZJRJDH3.S0000642        SYSIN
IEF285I   VOL SER NOS= K3SCR4.
IEF285I   SYS75059.T130821.RV000.YZJRJDH3.S0000642        DELETED
IEF285I   VOL SER NOS= K3SCR4.
IEF373I STEP /LINK    / START 75059.1831
IEF374I STEP /LINK    / STOP  75059.1832 CPU    0MIN 01.42SEC MAIN 130K LCS    0K
- STEP 01 -     RETURN CODE = 0000                    STEP TIME =      .20 MINS=(CPU=      .02,IO=      .18)
                                IO IN SECS. DISK=   10.47,DRUM=      .56,TAPE=      .00,CELL=      .00,OTHR=      .18
      XXGO        EXEC PGM=*.LINK.SYSLMOD,COND=(4,LT),REGION=70K                  00000230
      XXFT05F001 DD  DDNAME=DATA5                                                 00000240
      XXFT06F001 DD SYSOUT=&OUT,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=&BLKSIZE)        00000250
      IEF653I SUBSTITUTION JCL - SYSOUT=A,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=7265)
      XXFT07F001 DD SYSOUT=B,DCB=(RECFM=FB,BLKSIZE=7280,LRECL=80)                 00000260
      XXSYSPRINT DD SYSOUT=&OUT,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=&BLKSIZE),       00000270
      IEF653I SUBSTITUTION JCL - SYSOUT=A,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=7265),
      XX              SPACE=(CYL,(0,1)),UNIT=(DISK,3)                             00000280
      //GO.FT08F001 DD UNIT=9TRACK,DISP=(OLD,KEEP),LABEL=(01,BLP,,IN),
      //         DCB=(BLKSIZE=32000,RECFM=U,DEN=3),
      //               VOL=SER=Y0038
      //GO.DATA5 DD *
      //
IEF236I ALLOC. FOR YZJRJDH3 GO
IEF237I 231    ALLOCATED TO PGM=*.DD
IEF237I 231    ALLOCATED TO FT05F001
IEF237I 232    ALLOCATED TO FT06F001
IEF237I 231    ALLOCATED TO FT07F001
IEF237I 331    ALLOCATED TO SYSPRINT
IEF237I 231    ALLOCATED TO SYSPRINT
IEF237I 232    ALLOCATED TO SYSPRINT
IEF237I 003    ALLOCATED TO FT08F001
```

D-22262

C-17047

file 1: Henry Draper Catalogue and Etension (HD + HDE)
file 2: Kukarkin-Parenago (KP)
file 3-5: UBV (Photoelectric, remarks, references)
file 6: Stellar Radial Velocities (RV)

```
                                RECORD      1  OF FILE   1
                                LENGTH =    3960  BYTES
```

b b b b	b 1 0 b	1 5 9 9	b b b b	b 0 + b	7 1 7 0	b b 7 7	1	8 7	b K 0 b
40404040	40F1F040	F1F5F9F9	40404040	40F0F0F6	F7F1F7F0	4040F7F7	4040F140	40F8F740	40D2F040
40C0E340	40404040	40F1F140	F3F1F4F2	40404040	40F050F5	F7F1F3F0	4040F8F6	4040F140	40F9F040
40C6F540	4040F3D4	40404040	40F3F040	F4F5F5F0	40404040	40F050F4	F4F4F0F0	4040F6F5	F140F140
40F6F5F1	40C1F040	4040F840	40404040	40F4F040	F5F0F5F9	40404040	40F050F2	F9F4F6F0	4040F8F4
4040F140	40F8F740	40C6F040	4040F340	40404040	40F5F040	F4F8F2F5	40404040	40F050F0	F1F4F9F0
4040F9F0	4040F140	40F9F840	40C7F540	4040F340	40404040	40F6F040	F4F5F2F5	40404040	40F060F0
F1F0F4F0	4040F6F2	F840F140	40F7F2F8	40D2F040	4040F5D4	40404040	40F7F040	F6F0F9F0	40404040
40F060F0	F2F2F5F0	4040F9F0	4040F140	F1F0F040	40D2F040	4040F240	40404040	40F8F040	F6F0F1F8
40404040	40F060F0	F4F3F6F0	40F1F0F0	4040F140	F1F0F640	40C7F040	4040F240	40404040	40F9F040
F6F5F2F7	40404040	40F060F2	F1F1F1F0	4040F9F2	4040F040	F1F0F840	40D2F240	4040F340	40404040
F1F0F0F1	F5F5F7F9	40404040	40F060F4	F3F0F8F0	4040F8F8	4040F040	F1F0F040	40C7F540	4040F340
40404040	F1F1F040	F7F7F1F5	40404040	40F060F6	F0F1F7F0	4040F8F7	4040F040	F1F0F040	40C7F540
4040F140	40404040	F1F2F040	F7F7F1F6	40404040	40F060F6	F0F2F3F0	4040F8F1	4040F040	40F9F440
40C7F540	4040F240	40404040	F1F3F040	F1F0F8F3	40404040	40F060F8	F0F3F1F1	40F1F0F4	4040F040
F1F1F240	40C7F540	4040F340	40404040	F1F4F040	F1F4F2F6	40404040	40F150F6	F8F1F9F0	4040F6F9
F840F140	40F6F9F8	40C2F940	4040F740	40404040	F1F5F040	F4F3F7F7	40404040	40F150F4	F7F5F5F0
4040F8F0	4040F140	40F8F840	40C7F540	4040F140	40404040	F1F6F040	F5F1F6F4	40404040	40F150F3
E5E4E5F0	4040E8F1	F240E140	40E8E5F4	40C6F540	4040F440	40404040	F1E7F140	E5E0E6F1	40404040
40F150F3	F5F0F1F0	4040F6F8	F040F140	40F6F8F6	40C1F240	4040F7D4	40404040	F1F8F040	F4F7F5F0
40404040	40F150F0	F2F2F7F0	4040F9F4	4040F140	F1F0F540	40D2F240	4040F2C5	40404040	F1F9F040

```
IEF285I   VOL SER NOS= K3SYS6.
IEF285I   SYS2.FORTLIB                                  KEPT
IEF285I   VOL SER NOS= K3SYS2.
IEF285I   SYS1.PL1LIB                                   KEPT
IEF285I   VOL SER NOS= K3SYS6.
IEF285I   SYS1.FORTSSP                                  KEPT
IEF285I   VOL SER NOS= K3SYS2.
IEF285I   SYS2.COBLIB                                   KEPT
IEF285I   VOL SER NOS= K3SYS6.
IEF285I   SYS1.ALGLIB                                   KEPT
IEF285I   VOL SER NOS= K3SYS6.
IEF285I   SYS75057.T071544.RV000.YZJRJDH3.LODMOD        PASSED
IEF285I   VOL SER NOS= K3SCR4.
IEF285I   SYS75057.T071544.SV000.YZJRJDH3.R0000209      SYSOUT
IEF285I   VOL SER NOS= K3SCR4.
IEF285I   SYS75057.T071544.SV000.YZJRJDH3.R0000210      SYSOUT
IEF285I   VOL SER NOS= K3SCR4.
IEF285I   SYS75057.T071544.RV000.YZJRJDH3.R0000211      DELETED
IEF285I   VOL SER NOS= K3SCR5.
IEF285I   SYS75057.T071544.RV000.YZJRJDH3.S0000212      SYSIN
IEF285I   VOL SER NOS= K3SCR2.
IEF285I   SYS75057.T071544.RV000.YZJRJDH3.S0000212      DELETED
IEF285I   VOL SER NOS= K3SCR2.
IEF373I STEP /LINK     / START 75057.1104
IEF374I STEP /LINK     / STOP  75057.1105 CPU    0MIN 01.87SEC MAIN 130K LCS    0K
- STEP 01 -     RETURN CODE = 0000                                STEP TIME =      .21 MINS=(CPU=      .03,IO=      .18)
                                   IO IN SECS. DISK=    10.25,DRUM=      .56,TAPE=      .00,CELL=      .00,OTHR=      .17
     XXGO       EXEC PGM=*.LINK.SYSLMOD,COND=(4,LT),REGION=70K                 00000230
     XXFT05F001 DD  DDNAME=DATA5                                               00000240
     XXFT06F001 DD SYSOUT=&OUT,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=&BLKSIZE)      00000250
     IEF653I SUBSTITUTION JCL - SYSOUT=A,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=7265)
     XXFT07F001 DD SYSOUT=B,DCB=(RECFM=FB,BLKSIZE=7280,LRECL=80)               00000260
     XXSYSPRINT DD SYSOUT=&OUT,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=&BLKSIZE),     00000270
     IEF653I SUBSTITUTION JCL - SYSOUT=A,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=7265),
     XX              SPACE=(CYL,(0,1)),UNIT=(DISK,3)                           00000280
     //GO.FT08F001 DD UNIT=9TRACK,DISP=(OLD,KEEP),LABEL=(01,BLP,,IN),
     //        DCB=(BLKSIZE=32000,RECFM=U,DEN=3),
     //               VOL=SER=Z2134
     //GO.DATA5 DD *
     //
IEF236I ALLOC. FOR YZJRJDH3 GO
IEF237I 331   ALLOCATED TO PGM=*.DD
IEF237I 232   ALLOCATED TO FT05F001
IEF237I 331   ALLOCATED TO FT06F001
IEF237I 331   ALLOCATED TO FT07F001
IEF237I 331   ALLOCATED TO SYSPRINT
IEF237I 231   ALLOCATED TO SYSPRINT
IEF237I 232   ALLOCATED TO SYSPRINT
IEF237I 0D3   ALLOCATED TO FT08F001
```

YALE BRIGHT STAR

RECORD 1 OF FILE 1
LENGTH = 15210 BYTES

```
          1                                                                                                                  4  4 0 4 5   5 0                   3                   5  4  11Y
          404040F1  40404040  40404040  40404EF4  E4F0F4F5  F5F04040  404040F2  404040F5  F4404040  40404040
35 ->     40F3F540  4040F4F6  40404040  40404040  40F040F0  40F040F2  4E40F3E1  4EF4F4F4  F0F1F1F4  F2F660E1
16 ->     F6F5F340  4040F140  F0A0F5F1  F14E40F5  40F94EF4  F5F1F34B  F3F340F6  F4F640D9  40404040  40404001
          F0404040  40404040  40404040  40404040  40406 0F0  F0F1F660  F0F0F1F7  40404040  40604 0F1  F8404040
          F2F940F2  F1F5F340  40404040  F2404040  40404040  40404060  40F1F0F4  F5F2F540  40404040  F6404040
          F5F14040  40404040  404CF3F2  40404040  40404040  404040F2  F3F5F9F5  F64E40F3  F16040F1
          40F340F9  F8F1F960  F6F140F8  404040F2  40F040F5  40F44E40  F540F860  40F0F3F0  4EF3F340  F6F2F840
          404EF1F1  F0C74040  C7F94040  40404040  40404040  40404040  4040404E  F0F0F3F9  60F0F0F5  F5404040
          40404E40  F1F44040  40404040  40404040  40404040  40F340F3  F3404040  40D7E2C3  6040F6F0  F6F3F5F7
          40404040  F2F84040  40F5F940  4040F240  404040F3  F6404040  40404040  40404040  40404040  40F040F0
          F1F34E40  F3F16040  F6F1F640  F9F3F4F4  60F6F5F5  F6404040  F340F040  F5F2F04E  40F540F7  6040F5F4
          F24EF3F4  40F4F6F1  40404EF1  F0F44040  40D2F140  40404 0C9  C9C94040  40404040  60F0F0F1
          F64EF0F0  F9F64EF0  F0F94060  4040F6E5  40404040  40404040  40D94040  4040F440  F8F64040  4040D7C5
          C74EF1F2  F0F5F0F6  F3404040  40F8F740  4040F7F5  40404040  40404040  F4F24040  40404040  40404040
          40404040  4040F040  F0F3F44E  40F3F14E  F1F2F5F0  F1F0F6F1  F060F4F7  F5F94040  40F440F0  40F5F4F2
          4E40F540  F84EF1F3  F2F34EF3  F340F5F4  F840D940  404040C7  4040C7F5  40404040  40404040  40404040
          40404040  404EF0F0  F4F14EF0  F0F0F240  40404040  4E4040F2  E56F4040  40404040  40404040  404040F5
          40404040  40404040  40404EF5  F7F0F2F8  F6F54040  40F1F2F3  404040F8  F8404040  F7404040  40F4F440
          4040F6F1  40404040  40404040  404040F0  40F140F2  4E40F3F1  4EF5F7F5  F3F1F1F7  40F16040  F3F5F540
          4040F540  F040F6F1  F64E40F5  F1F44EF5  F8F2F64E  F3F340F6  F4F34040  4E40F6F4  C44040C7  F4404040
```

D-22263
C-17048

```
40404040  F5F46BF2  F2604062  F448F0F2  40404040  404040F1  F5F0F8F6  40404040  40404040  F1F5F0F8
F6404040  40404040  40F1F640  40F3F640  40F2F140  F2F640F0  F8F24040  40404040  40404040  C440C640
F6404040  40404060  F3F0F0F6  40404040  F4F748B7  F44040F1  F94BF3F2  40404040  404040F1  F5F0F8F7
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F5F44040  4040C640  F040D540  40404060  F0F3F4F0  40404040  F3F94BF9  F2404040  F94BF4F9  40404040
40404040  F3F0F9F1  40404040  40404040  F1F5F3F9  F1404040  40404040  40F1F840  F3F1F840  40F8F540
F2F040F0  F6F74040  40F0F0F0  F2F04040  C440C640  F0404040  40404060  F0F1F9F0  40D54040  F9F54BF2
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40F1F840  F4F3F440  40F1F540  F4F040F0  F6F64040  40F0F0F0  F3F84040  4040C140  F240D540  40404060
F0F2F1F0  40404040  F4F643F3  F0404040  F84BF3F5  40404040  404040F1  F5F0F9F3  40404040  40404040
F1F5F0F9  F3404040  40404040  40F1F840  F5F7F140  40F4F040  F3F740F0  F9F54040  40404040  40404040
4040C140  F4404040  40404040  F0F0F3F0  40D54040  F7F04BF8  F94040F1  F64BF0F1  40404040  404040F1
F5F0F9F-  40F2F0F6  F0F24040  F1F5F0F9  F440F1F6  F0F8F8F9  40F1F940  F1F5F440  40F2F140  F4F340F0
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F440F3F2  40404040  40404041  F0F0F9F5  40F2F6F9  F9F24040  F1F5F0F9  F540F1F8  F4F1F5F1  40F1F940
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40F0F0F0  F1F54040  4040C140  F0404040  40404060  F0F2F0F4  40D54040  F7F74BF0  F7404040  F24BF2F5
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40F3F540  F4F440F0  F7F0C0D7  40404040  40404040  4040D840  40404040  4040404E  40404040  40D54040
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F3F54040  4040C140  F2404040  40404060  F0F1F2F0  40404040  F7F84BF8  F34060F1  F34BF9F3  40404040
```

RECORD 152 OF FILE 6
LENGTH = 552 BYTES

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4CF440F0  F6F64040  43F3F0F0  F0F04040  40404040  F2404040  40404040  F0F1F6F0  40404040  F7F448F8
F6404060  F348F3F0  40404040  40404041  F5F1F0F2  40F3F0F6  F5F54040  F1F5F1F0  F240F2F0  F9F6F9F1
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F640F2F2  F1F0F1F1  40F2F040  F2F5F940  40F1F940  F3F740F0  F6F74040  40F0F0F0  F3F14040  4040C640
F0404040  40404060  F0F1F4F1  40404040  F9F748F3  F940C0F3  F84BF8F6  40404040
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152 RECORDS IN FILE 6 OF TAPE

```
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   SYS75059.T130821.RV000.YZJRJDH3.LODMOD        PASSED
IEF285I   VOL SER NOS= K33CR2.
IEF285I   SYS75059.T130821.RV000.YZJRJDH3.S0000047      SYSIN
IEF285I   VOL SER NOS= K33CR2.
IEF285I   SYS75059.T130821.RV000.YZJRJDH3.S0000047      DELETED
IEF285I   VOL SER NOS= K33CR2.
IEF285I   SYS75059.T130821.SV000.YZJRJDH3.R0000043      SYSOUT
IEF285I   VOL SER NOS= K33CR3.
IEF285I   SYS75059.T130821.SV000.YZJRJDH3.R0000044      DELETED
IEF285I   VOL SER NOS= K33CR2.
IEF285I   SYS75059.T130821.SV000.YZJRJDH3.R0000043      DELETED
IEF285I   VOL SER NOS= K33CR4.
IEF285I   SYS75059.T130821.RV000.YZJRJDH3.R0000040      KEPT
IEF285I   VOL SER NOS= Y0008 .
```

```
40404040  40404040  404040F7  F3F04040  4040F2F2  F4F0F8F5  40404040  40404040  40404040  40404040
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C6F34040  40C6F340  40F0F3F7  F4F7F8F2  F3F0F2F6  F0F5F940  40404040  40F04040  F1F6F540  40F2F0F5
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F4F1F2F2  F7F5F3F2  F0F7F6F6  F4404040  404040F0  404040F3  F0F04040  40404040  406040F4  F6F040F4
40404040  40F8F740
```

15 RECORDS IN FILE 7 OF TAPE

```
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   SYS75056.T091504.RV000.YZJRJDH3.LODMOD        PASSED
IEF285I   VOL SER NOS= K3SCR3.
IEF285I   SYS75056.T091504.RV000.YZJRJDH3.S0000692      SYSIN
IEF285I   VOL SER NOS= K3SCR2.
IEF285I   SYS75056.T091504.RV000.YZJRJDH3.S0000692      DELETED
IEF285I   VOL SER NOS= K3SCR2.
IEF285I   SYS75056.T091504.SV000.YZJRJDH3.R0000688      SYSOUT
IEF285I   VOL SER NOS= K3SCR4.
IEF285I   SYS75056.T091504.SV000.YZJRJDH3.R0000689      DELETED
IEF285I   VOL SER NOS= K3SCR4.
IEF285I   SYS75056.T091504.SV000.YZJRJDH3.R0000690      DELETED
IEF285I   VOL SER NOS= K3SCR4.
IEF285I   SYS75056.T091504.RV000.YZJRJDH3.R0000691      KEPT
IEF285I   VOL SER NOS= Z2152 .
IEF280E K 0D4,Z2152 ,YZJRJDH3,GO
IEF373I STEP /GO      / START 75056.1621
IEF374I STEP /GO      / STOP  75056.1640 CPU    0MIN 52.42SEC MAIN 186K LCS    0K
- STEP 02 -      RETURN CODE = 0000                          STEP TIME =     1.63 MINS=(CPU=      .87,IO=      .76)
                                   IO IN SECS. DISK=    15.25,DRUM=     1.18,TAPE=    28.59,CELL=      .00,OTHR=      .19
IEF285I   SYS75056.T091504.RV000.YZJRJDH3.LODMOD        DELETED
IEF285I   VOL SER NOS= K3SCR3.
IEF375I  JOB /YZJRJDH3/ START 75056.1620
IEF376I  JOB /YZJRJDH3/ STOP  75056.1640 CPU    0MIN 54.24SEC
-  SYSTEM=MVT-21 (11-21-73)   K3                                   TIME=15.40.48.73 DATE=02-25-75
- JOB 0323-                                          TOTAL TIME =     1.84 MINS=(CPU=      .90,IO=      .94)
                                   IO IN SECS. DISK=    25.62,DRUM=     1.74,TAPE=    28.59,CELL=      .00,OTHR=      .37
 THERE WERE 01 TAPES MOUNTED FOR THIS JOB. TAPE MOUNT CHARGE WAS 00.0 MINUTES.
```