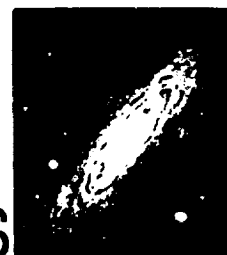# NSSDC
WDC-A-R&S

National Space Science Data Center/
World Data Center A For Rockets and Satellites
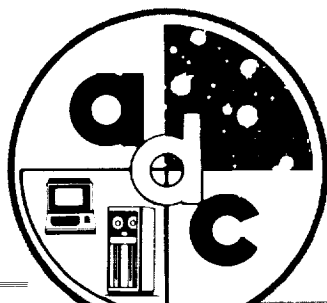
90-26

A SEARCH FOR ULTRAVIOLET-EXCESS

OBJECTS

(Kondo, Noguchi, and Maehara 1984)

Documentation for the Machine-Readable Version

November 1990

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Wayne H. Warren Jr.

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Abstract

A detailed description of the machine-readable version of the catalog, as it is currently being distributed from the Astronomical Data Center, is given. The catalog is a list of 1186 objects found during two surveys with the Kiso Schmidt telescope of the Tokyo Astronomical Observatory. The data include equatorial coordinates, magnitudes, color indices, and identifications for previously cataloged objects.

Table of Contents

List of Tables

1.0   Introduction

1.1   Description

A list of ultraviolet-excess objects (designated KUV) has been compiled as a result of a search conducted with the 105-cm Schmidt telescope of the Kiso station of the Tokyo Astronomical Observatory in Japan. The *UGR* three-image method was used for detection of the objects cataloged, which range in blue magnitude from about 10.0 to 18.5. The list contains positions to an accuracy of approximately ± 0″5, magnitudes and color indices, plus notes on types of objects and identifications for those that have previously appeared in the literature.

This document describes the machine-readable version of the KUV survey list and is intended to facilitate processing of the machine-readable data without problems and guesswork. For additional information on how the observations were made, the objects detected and measured, and the statistics of each field, the source references should be consulted. The 1984 publication also gives finding charts for the objects listed in both papers. A copy of this document should be transmitted to any recipient of the machine-readable catalog originating from one of the international network of astronomical data centers.

1.2   Source References

Kondo, M., Noguchi, T., and Maehara, H. 1984, Ann. Tokyo Astron. Obs., 2nd Ser., 20, 130

Noguchi, T., Maehara, H., and Kondo, M. 1980, Ann. Tokyo Astron. Obs., 2nd Ser., 18, 55

2.0 Structure

2.1 File Summary

The machine version of the KUV survey list consists of a single file. Table 1 gives the machine-independent file attributes. All logical records are of fixed length, and, if the catalog is received on magnetic tape, it will contain blocks of fixed length (as noted below), except that the last block may be short.

A Search for Ultraviolet-Excess Objects (Kondo, Noguchi, and Maehara 1984)				
File	Contents	Record Format	Logical Record Length	Total Number of Logical Records
1	Catalog	FB	80	1186

Table 1. Summary Description of Catalog File: FB = Fixed length blocks (last may be short)

The information contained in the above table is sufficient for a user to describe the indigenous characteristics of the machine-readable version of the KUV survey list to a computer. Information easily varied from installation to installation, such as block size (physical record length), blocking factor (number of logical records per physical record), total number of blocks, density, number of tracks, and character coding (ASCII, EBCDIC) for tapes is not included, but should always accompany secondary copies if any are supplied to other users or installations.

2.2   Catalog (File 1 of 1)

Table 2 gives a byte-by-byte description of the contents of the data file. A suggested Fortran format specification for reading each data field is included and can be modified depending upon individual programming and processing requirements (Fortran 77 character string-type formats are used); however, caution is advised when substituting format specifications, since certain fields contain character data and others are blank when data are absent. Default (null) values are always blanks in data fields for which primary suggested formats are given as A. Where no default values are given for numerical fields, there are always valid data present.

Byte(s)	Units	Suggested Format	Default Value	Data
1-10	---	A10	---	KUV coordinate designation
11	---	A1	---	Component identification
12	---	1X	---	Blank
13-19	---	A7	---	Area number
20-22	---	3X	---	Blank
23-24	hours	I2	---	Right ascension, α
25	---	1X	---	Blank
26-27	min	I2	---	α
28	---	1X	---	Blank
29-33	sec	F5.2	---	α
34-35	---	2X	---	Blank
36	---	A1	---	Sign of declination zone
37-38	°	I2	---	Declination, δ
39	---	1X	---	Blank
40-41	'	I2	---	δ
42	---	1X	---	Blank
43-46	"	F4.1	---	δ
47-48	---	2X	---	Blank
49-53	mag	F5.2	---	G magnitude
54	---	A1	---	G uncertainty code
55-58	mag	F4.1	---	Color index (C. I.)
59	---	A1	---	C. I. uncertainty code
60	---	1X	---	Blank
61	---	A1	---	Object code
62	---	1X	---	Blank
63-80	---	A18	---	Alternate designation

Table 2.   Catalog Record Format

KUV designation   Composed of hours and minutes of right ascension, sign, and degrees and minutes of arc of declination. Note that this coordinate designation does not follow the standard IAU convention because the coordinates are rounded and not truncated.

Area number   Another designation consisting of a Kiso area number (see *Kiso Information Bulletin* No. 1, 1979) and a serial number within the area.

Equatorial coordinates   Equinox 1950, epoch of observation.

G magnitude   The G (green) magnitude of the "three-image (*UGR*) method" used for efficient detection of blue objects, *e.g.*, by Haro & Herbig (1955), Iriarte & Chavira (1957), Haro & Luyten (1962), and others. See the source reference for additional details. A colon (:) in byte 54 denotes an uncertain value.

Color index   Estimated as the enhancement in the U image relative to the G, calibrated with known values of $U\text{-}B$ color. A colon (:) in byte 59 denotes an uncertain value.

Object code   A letter code to denote the following characteristics:

W spectroscopically confirmed white dwarf

Q quasar

D diffuse object with possible accompanying halo

V variable that is definitely brighter or fainter on print of the *Palomar Observatory Sky Survey* than on the Kiso plate

Alternate designation   Object designation in a previous catalog, composed of a reference number in bytes 63-64, followed by the designation in the cited catalog. The references are given as an appendix to Table 2 in Kondo, Noguchi, and Maehara (1984).

3.0 History

3.1 Remarks and Modifications

A magnetic tape containing the first and second Kiso surveys in separate files was received from Dr. M. Kondo on March 11, 1985. The following modifications were made to produce the current catalog:

1. The two lists were moved to online storage and merged.

2. Minus signs on negative declinations were moved to always occur in the same byte. Zero declinations had lost their signs; these were added by using the respective KUV designations. Plus signs were then added to all positive declinations.

3. Uncertainty codes for G magnitude were moved to byte 54 so that they do not occur within the magnitude field.

4. The combined list was sorted by increasing right ascension.

4.0 Acknowledgments and References

4.1 Acknowledgments

Appreciation is expressed to Dr. Masayuki Kondo for supplying the catalog on request and for sending reprints of the published papers along with his explanatory letter. Drs. Kondo, Maehara, and Noguchi graciously reviewed a draft copy of this document and approved its release. I also thank Dr. S. Nishimura for reviewing the document.

4.2 References

Haro, G., and Herbig, G. H. 1955, Bol. Obs. Tonantzintla y Tacubaya No. 14, 8

Haro, G., and Luyten, W. J. 1962, Bol. Obs. Tonantzintla y Tacubaya No. 32, 37

Iriarte, B., and Chavira, E. 1957, Bol. Obs. Tonantzintla y Tacubaya No. 16, 3

Kondo, M., Noguchi, T., and Maehara, H. 1984, Ann. Tokyo Astron. Obs., 2nd Ser., 20, 130

Noguchi, T., Maehara, H., and Kondo, M. 1980, Ann. Tokyo Astron. Obs., 2nd Ser., 18, 55

5.0 Sample Listing

The sample listing given on the following pages shows logical records exactly as they are recorded in the machine-readable version of the catalog. Groups of records from the beginning and end of the file are illustrated. The beginning of each record and the bytes within the record are indicated by the column heading index across the top of each page (digits read vertically).

LISTING OF RECORDS FROM DATA FILE

```
Data File Name:  Ultraviolet-Excess Obj.
       Records   1 to  20
     Data File   141
 Record Length   80 bytes
  Input VOLSER   ADC002
```

```
C O L U M N
H E A D I N G
I N D E X
          1111111111222222222233333333334444444444555555555566666666667777777777888888888899999
 1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123
```

Record 1	00295-1705	1177 01	0 29 28.92	-17 4 46.8	15.0	0.0	
Record 2	00296-2026	1177 05	0 29 33.88	-20 26 4.0	14.0	0.5	
Record 3	00299-2113	1177 06	0 29 56.14	-21 13 8.8	17.5	0.0	
Record 4	00300-1810	1177 02	0 29 59.51	-18 9 55.0	17.0	-0.5	
Record 5	00307-2111	1177 07	0 30 44.65	-21 10 50.7	17.5	-0.5	
Record 6	00311-1938	1177 04	0 31 3.96	-19 38 6.6	16.8	0.0	
Record 7	00312-1837	1177 03	0 31 10.37	-18 37 5.4	16.9	-1.0	
Record 8	00327-1959	1177 13	0 32 41.66	-19 59 12.4	17.8	-0.5	
Record 9	00328-1735	1177 08	0 32 46.01	-17 35 24.5	14.9	-1.5	03 705-64
Record 10	00329-1747	1177 09	0 32 54.50	-17 47 14.5	15.8	-1.0	04 623
Record 11	00334-1738	1177 10	0 33 23.09	-17 37 53.3	17.7	-1.0	
Record 12	00336-2223	1177 17	0 33 34.92	-22 22 53.9	17.5	-2.0	
Record 13	00337-1749	1177 11	0 33 41.35	-17 49 11.9	17.8	-1.0	
Record 14	00337-2137	1177 15	0 33 39.64	-21 37 25.9	17.0	-0.5	
Record 15	00339-2042	1177 14	0 33 56.49	-20 41 38.9	16.5	-0.5	
Record 16	00341-2131	1177 16	0 34 5.22	-21 30 52.8	17.8	-1.0	
Record 17	00343-1859	1177 12	0 34 16.81	-18 59 5.4	17.5	-0.5	
Record 18	00358-2012	1177 19	0 35 46.91	-20 11 56.3	17.0	0.0	
Record 19	00360-2151	1177 18	0 36 0.34	-21 50 57.8	18.0	-1.0	
Record 20	00368-1923	1177 20	0 36 49.27	-19 22 51.0	17.5	-0.5	

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LISTING OF RECORDS FROM DATA FILE

Data File Name: Ultraviolet-Excess Obj.

Records 1167 to 1186
Data File 141
Record Length 80 bytes
Input VOLSER ADC002

Record	Name	Vol	Num	RA			Dec			Mag		Flags
1167	23223+1116	0813	23	23	22	20.42	+11	16	0.4	16.6	-1.5	
1168	23223+0921	0813	34	23	22	20.97	+ 9	21	1.9	16.8	-1.0	
1169	23224+1151	0813	24	23	22	26.48	+11	51	13.8	16.1	-1.0	
1170	23229+1140	0813	25	23	22	54.71	+11	39	40.1	16.4	0.0	D
1171	23235+2536	0597	10	23	23	28.53	+25	35	57.7	17.0	0.0	W 02 380
1172	23235+2531	0597	11	23	23	31.94	+25	30	35.9	16.5	-0.5	D
1173	23235+1205	0813	26	23	23	27.46	+12	4	54.6	14.5	-1.5	W 05 82
1174	23236+1544	8741	01	23	23	35.73	+15	43	51.4	15.09	-1.0	W 02 335
1175	23244+2217	0597	15	23	24	24.62	+22	16	37.5	15.5	-1.5	
1176	23250+2258	0597	14	23	25	0.94	+22	57	41.6	16.8	-0.5	
1177	23252+2319	0597	13	23	25	12.05	+23	18	59.3	14.0	0.0	D
1178	23253+2334	0597	12	23	25	17.95	+23	33	43.5	16.2	-2.0	
1179	23255+2659	0597	22	23	25	28.43	+26	59	20.4	17.2	-1.0:	Q 01 2325+269?
1180	23256+2705	0597	18	23	25	33.49	+27	5	0.0	16.8	-0.5	
1181	23258+2241	0597	16	23	25	48.69	+22	41	29.8	16.5	-1.0	
1182	23280+2203	0597	19	23	27	58.15	+22	3	25.4	16.5	-0.5	
1183	23281+1044	0813	36	23	28	8.81	+10	43	45.8	17.79	-0.5:	Q 01 2328+107
1184	23282+1046	0813	27	23	28	9.67	+10	45	33.6	15.3	-1.5	
1185	23296+2642	0597	20	23	29	33.25	+26	42	10.9	15.25	-1.0	W 02 161
1186	23309+2523	0597	21	23	30	56.33	+25	22	34.0	16.0	0.0	D

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