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VARIABLE STAR

BULLETIN

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A POSSIBLE NEW MIRA TYPE VARIABLE IN DELPHINUS

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2002-3, Ootsuka-chou, Mito, Ibaragi 311-41

On about 50 films (Fujicolor SHG 400) taken with 20 cm F/6.3 reflector between 1990 and 1992, a new variable of possibly Mira type was found. The position is $20^h59^m51^s$, $+17°58'.1$ (1950.0).

The light curve is shown in Figure 1, and the finding chart in Figure 2. The range was 9.8 - 14.6 m_v so far, and the period was around 415 days. In the finding chart, m_v of comparison stars are shown without decimal point.

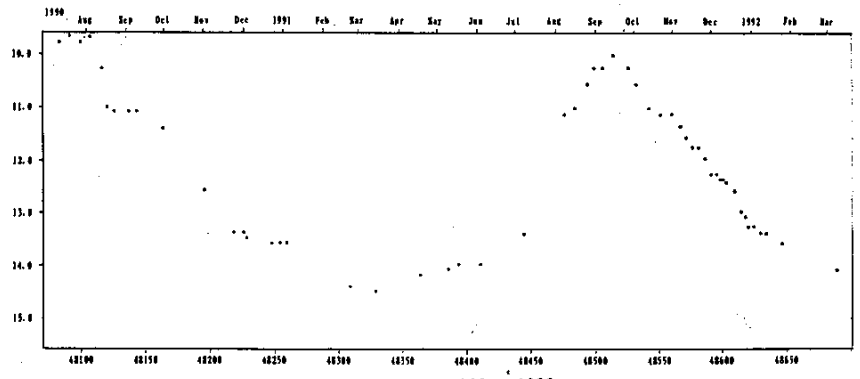

FIG. 1 Light Curve in 1990 ~ 1992

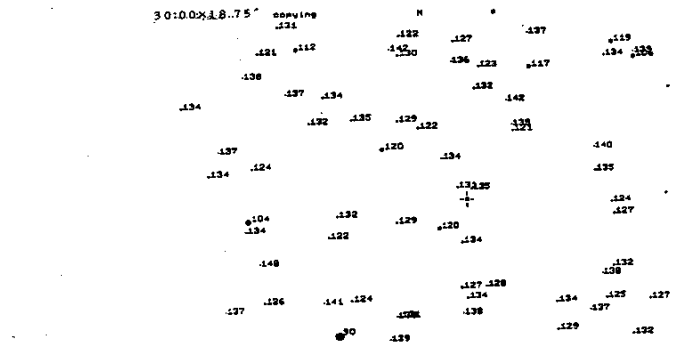

FIG. 2 Finding Chart

SOME NEW VARIABLES IN MONOCEROS

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(Presented at the 24th Japan Amateur Astronomers' Convention, Hamamatu, Oct 27.'91)

Comparing IRAS-PSC(IRAS Catalogue of Point Sources, Version 2.0) with the photograph (δ Mon field) taken between 1981 and 1991 with 400 mm lens, some new variables were found.

Table 1 shows the list of candidate for variable stars near δ Mon picked up from IRAS-PSC. Table 1 was prepared by Mr. Kato.

Column 1, R, means identification number. Column 2, IRAS Number, shows approximate 1950.0 equinox positionof stars. Column 3, F12, means flux density of 12 μ. Column 4, GSC, means magnitude derived from Guide Star Catalogue. Column 5, var%, shows the probability of light variation, -1 means probability is not estimated.

The resultsof inspection of 160 films are as follows:

Variable: R-6, 24, 28, 29, 33, 36, 41.

Small range variable: R-4, 8, 12, 32, 38, 40.

Constant: R-2, 3, 5, 9, 10, 11, 14, 15, 18, 19, 20, 21, 22, 23, 26, 27, 31, 34, 37, 39, 42, 43, 44.

Not found (fainter than 15m): R-1, 7, 13, 16, 17, 25, 30, 35, 45.

Could not identified: R-46

Remarks on some stars are given below.

R-4 (Fig. 1): In spite of high probability of infra red light variation expected, light curve suggests small range (14.2 ~ 15.0) irregular variable.

R-6 (Fig. 2): Mira type variable. Magnitude 12.5 ~ 14.4. Period 350 ~ 390 days.

R-8 (Fig. 3): Irregular variable. Magnitude 10.8 ~ 11.4.

R-28 (Fig. 4): Mira type variable. Magnitude 12.5 ~ 14.7. Period 420 days sofar.

R-33 (Fig. 5): Possible symbiotic variable. Need to spectrum observation. Magnitude 11.3 ~ 14.6.

R-36 (Fig. 6): Mira type variable. Magnitude 11.0 ~ 13.7. Period 250 days so far.

R-40 (Fig. 7): Irregular variable. Magnitude 10.5 ~ 11.5.

R-41 (Fig. 8): Semiregular variable. Magnitude12.7 ~ 14.5.

R	IRAS No.	F12	GSC	var%	R	IRAS No.	F12	GSC	var%
1	07093+0052	0.7	<14.4	12	24	07100-0242	4.8	<14.9	68
2	07099+0039	0.5	9.0	-1	25	07131-0147	2.5	14.3	1
3	07098+0033	0.4	9.3	-1	26	07145-0146	0.5	10.6	-1
4	07090+0014	4.4	13.3	58	27	07148-0228	1.1	10.0	-1
5	07079+0019	0.5	11.4	-1	28	07174-0203	5.3	<14.2	13
6	07063-0012	0.9	<14.7	36	29	07156-0137	0.3	<13.6	37
7	07085-0018	36.3	<14.5	99	30	07123-0117	0.3	<14.1	-1
8	07104+0008	2.1	11.9	6	31	07135-0110	0.5	10.9	-1
9	07114+0008	1.4	10.9	3	32	07148-0114	0.7	11.1	1
10	07110-0012	0.7	10.3	-1	33	07161-0111	47.9	<14.3	52
11	07117-0023	0.7	11.7	-1	34	07172-0139	0.4	9.2	-1
12	07117-0027	1.9	<14.0	1	35	07149-0046	25.1	<14.2	99
13	07113-0025	7.8	<14.6	16	36	07168-0037	2.3	12.8	7
14	07120-0036	0.7	12.1	0	37	07149-0032	1.3	13.9	0
15	07061-0052	0.4	11.1	-1	38	07175-0000	1.2	<14.2	0
16	07080-0108	39.8	<14.4	14	39	07163+0010	1.0	8.4	7
17	07085-0113	2.3	<14.6	1	40	07141-0006	0.6	11.6	-1
18	07090-0118	1.2	9.7	-1	41	07150-0026	0.4	14.2	-1
19	07095-0110	0.3	9.5	-1	42	07127+0042	3.3	9.3	15
20	07089-0115	0.4	9.3	-1	43	07179+0102	0.5	11.9	-1
21	07071-0158	0.3	12.0	-1	44	07169+0124	0.4	10.8	-1
22	07083-0228	0.3	8.6	-1	45	07161+0116	0.5	<14.0	-1
23	07098-0229	0.3	8.3	-1	46	07115+0103	1.6	14.0	78

Table 1.

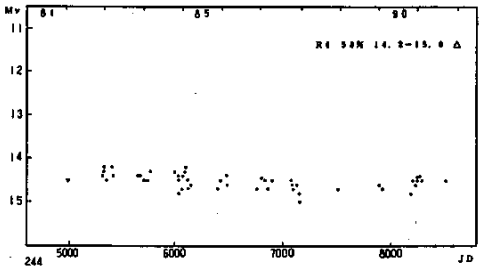

Fig. 1 R-4

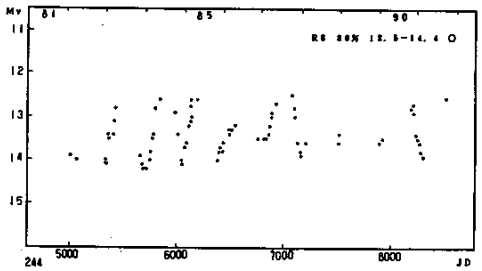

Fig. 2 R-6

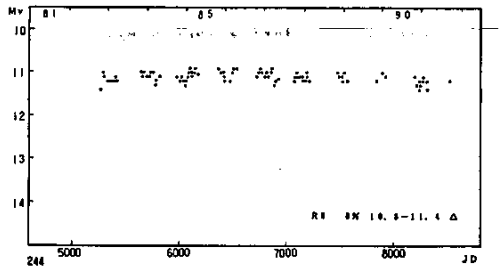

Fig. 3 R-8

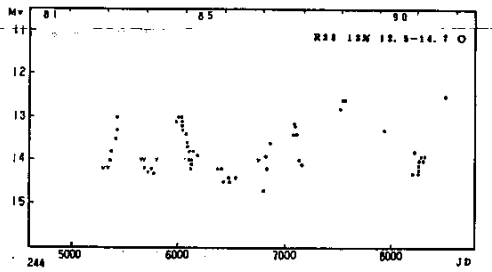

Fig. 4 R-28

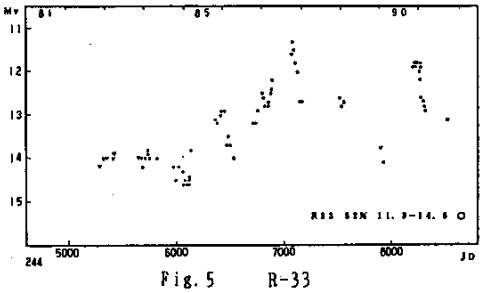

Fig. 5 R-33

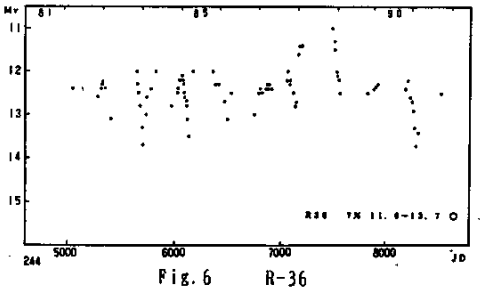

Fig. 6 R-36

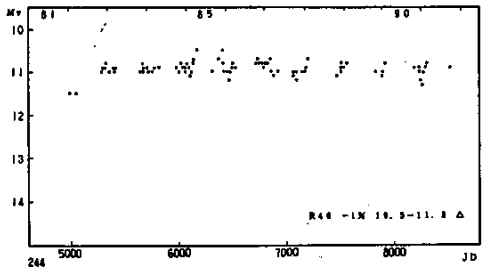

Fig. 7 R-40

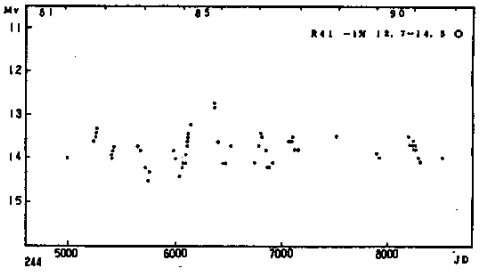

Fig. 8 R-41

Reference

1) Wakuda, M. 1991, Procedings of the 24th Japan Amateur Astronomers' Convention, p33. (Hamamatu, Oct. 27. '91) (In Japanese)

2) Kato, T. 1991, Gekkan Tenmon (Monthly Astronomy), Jan. '91, p84. (In Japanese)

COMPLETION OF JAPANESE DATABASE OF VARIABLE STAR OBSERVATION

Japanese computer readable database of variable star observations was completed. It contains 1,060,000 observations carried out during 1906 ~ May 1991. The completion was announced at the fall meeting of the Astronomical Society of Japan held at Mito City in October '91 by Seiichiro Kiyota and Keiichi Saijo as representatives of VSOLJ. The information how to reply for requests from overseas will announce later.

VARIABLE STAR OBSERVERS LEAGUE IN JAPAN

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