

VARIABLE STAR
BULLETIN

No. 6

April 1988

RECENT EPHEMERIS OF ALGOL

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Based upon the visual observations of Algol in 1984-88, 36 timings of minima were observed. The total number of estimations amounts to 1200, and each timing was determined with some 30 estimations.

From the above observations, the following formula can be obtained.

$$\text{Min} = \text{JD } 2446361.2191 + 2.48673557 \cdot E$$

(± 5) (± 31)

The O-C's in the table are obtained with this ephemeris as are shown in Figure 1, and it seems to be probable that the variations has cyclic change of the period of about 265 epochs or 2.08 years.

E	Min J.D. 2440000+	O-C	E	Min J.D. 2440000+	O-C
-151	5928.241	-0. ⁴ 006	135	6748.304	-0. ⁴ 006
-150	5931.112	- 3	137	6754.039	- 6
-129	5991.329	0	144	6774.123	+ 6
-127	5997.065	+ 2	145	6776.981	- 4
-113	6037.204	- 4	146	6779.857	+ 6
-112	6040.074	+ 4	152	6797.051	- 6
-105	6060.150	+ 5	153	6799.924	+ 1
-103	6065.887	+ 7	159	6817.125	- 2
- 97	6083.084	0	161	6822.868	+ 6
- 30	6275.202	+ 5	168	6842.933	0
- 27	6295.268	0	248	7072.318	- 4
- 7	6341.149	+ 3	257	7098.129	- 1
0	6361.217	+ 3	265	7121.070	0
7	6381.287	- 2	266	7123.938	0
8	6384.153	- 3	273	7144.002	- 5
15	6404.223	- 5	274	7146.875	0
25	6432.901	- 1	281	7166.945	0
130	6733.974	0	289	7189.877	- 8

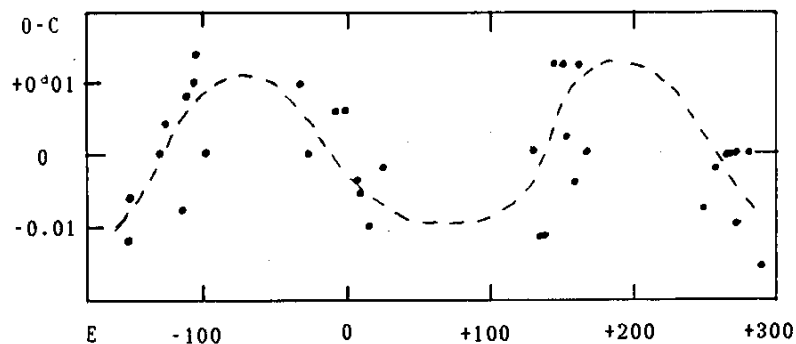


Fig.1. O - C.

PERIODICITY OF GP CMa

M.Huruhata (Gotenba)
M.Wakuda (Ryuyo, Shizuoka)

This is a very red carbon star which was listed as AS 137 by Burwell (1950). N.Sanduleak (1975) suggested that the star is possibly a long-period variable, and has the hydrogen emission near maximum light. The star is classified as Lb type in the GCYS(4th ed.).

More than one hundred photovisual magnitudes were obtained by us in 1982-88 as shown in Figure 1. The star is possibly a Mira type variable with the period of 430 days. The range is 10.7-13.5v so far. The provisional elements are as follows.

$$M = \text{JD } 2445370 + 430^d E$$

The position of the star is measured as $6^h 50^m 26^s$, $-12^{\circ} 06' .2$ (1950).

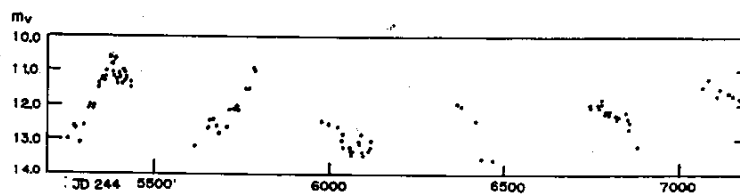


Fig.1. Variation of GP CMa.

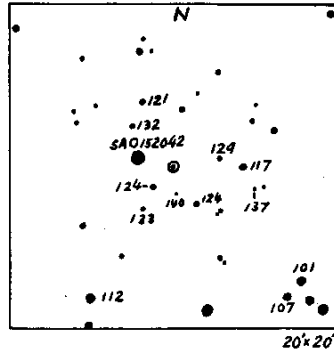


Fig.2. Comparison stars with m_v .

References:

Merill, P.W. and Burwell, C., 1950, Ap. J., 112, 72.
 Sanduleark, N., 1975, IBVS No. 1035.

ANNUAL REPORT OF THE EDITOR
 FOR THE YEAR 1987

NTK (Japan Astronomical Study Association) received 49296 observations from 28 observers. 3 observers start to report in 1987. 8 observers reported more than 1000 observations. T.Kato sent in 15516 observations, H.Narumi, 13311, M.Iida, 4538, M.Yawada, 3012, K.Hirosawa, 2105, S.Kiyota, 1796, N.Makiguchi, 1757 and M.Hiraga, 1283. The grand total of observations recorded since the founding of NTK in 1945 is 753227. Type of variable stars observed in 1987 are as follows:
 long period 481, miscellaneous 690 and suspected variables 14.

NHK (Japan Variable Star Study Association) issued 8 circulars in 1987. The following variables were adopted in the circular.
 Nova And 1986, Algol, BD Vul, IU Aur, SN in LMC, V641 Cas, Nova Her 1987, Mira, U Gem type, V394 CrA, U Sco, EZ Aql, R Leo, SU UMa type, R Cas, YX Aur, BF Cyg, R And, Z UMa, 034525 Tau, Nova Vul 1987, FZ Del, EQ Cas, RS Cyg, W Cyg, AQ Eri, V482 Cyg, IP Peg.

T.Kato, member of NHK, proposed to issue the Cataclysmic Variable Circular to inform the results of visual observations. The circular issued monthly since July 1987 compiled by T.Kato and M.Watanabe, reporting the results by 10 active members.

S.Akita is developing computer-processing systems of observations using MS-DOS format.

K.Gomi and other old observers suggested to utilize Japanese variable star data using this software. Several years later, we would have machine readable facilities for roughly 800,000 observations since 1906.

JAPOA(Japan Amateur Photoelectric Observers Association) issued 5 circulars. Annual meeting at Kawasaki City and Summer Seminar at Gifu Prefecture were held. They are developing JSP-1 (JAPOA Standard Photometer 1) in order to popularize photoelectric observations. UBV observation of Nova Vul 1987 was published in IBVS No. 3135 by O.Ohshima.

The 9th annual meeting of variable star observers sponsored by the Inter-University Astronomical Fan Club was held at Hachiohji on June 20-21 and the 4th central Japan variable star observers meeting was held at Hamamatsu on Aug.1-2.

No.120 to No.130 Rapid News Service on Variable Star were issued by K.Hirosawa in 1987.

Two Novae were discovered in Japan in 1987.

Jan.27 Nova Her by M.Honda and M.Sugano.

Nov.16 Nova Vul by Y.Sakurai (independent discovery)

VARIABLE STAR OBSERVERS LEAGUE
IN JAPAN

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