***INTERNATIONAL ASTRONOMICAL UNION COMMISSION 26 (DOUBLE STARS)***

***INFORMATION CIRCULAR No. 136 (OCTOBER 1998)***

NEW ORBITS

| ADS | Name | P (yr) | T | e | W(2000) | 1998 | Author |
|---|---|---|---|---|---|---|---|
| RA 2000 DEC | | n (deg) | a (") | i (deg) | w (deg) | Last ob. | 1999 |
| | RST 4188 | 466.03 | 2395.22 | 0.782 | 113.3 | 23.2 | 0.493 OLEVIC |
| 01528-0447 | | 0.7725 | 0.662 | 47.5 | 124.0 | 1995.91 | 23.6 0.497 JOVANOVIC |
| 3007 | A 998 | 158.24 | 2010.16 | 0.692 | 170.8 | 218.8 | 0.129 PAVLOVIC |
| 04089+4614 | | 2.2750 | 0.281 | 123.8 | 46.9 | 1989.813 | 214.4 0.127 |
| 3228 | BU 1186 | 410.67 | 1948.17 | 0.210 | 170.2 | 75.7 | 0.143 POPOVIC & |
| 04275+1113 | | 0.8766 | 0.773 | 102.2 | 27.3 | 1995.921 | 70.5 0.145 PAVLOVIC |
| 4002 | McA 18 Aab,c | 19.24 | 1979.08 | 0.047 | 126.5 | 118.7 | 0.049 OLEVIC & |
| 05244-0224 | | 18.7138 | 0.059 | 103.7 | 36.5 | 1995.932 | 110.5 0.037 JOVANOVIC\ |
| | CHARA 26 | 14.18 | 1984.40 | 0.237 | 14.4 | 100.4 | 0.032 OLEVIC & |
| 07269+2015 | | 25.3939 | 0.061 | 46.6 | 111.4 | 1995.9215 | 154.4 0.039 JOVANOVIC |
| | COU 1757 | 49.70 | 2000.80 | 0.536 | 13.3 | 240.6 | 0.090 MANTE |
| 14260+4213 | | 7.2435 | 0.192 | 46.1 | 304.5 | 1996.415 | 265.4 0.071 |
| 9532 | B 2351 Aa | 23.47 | 1994.57 | 0.245 | 179.0 | 117.2 | 0.107 MASON & |
| 15123-1947 | | 15.3387 | 0.131 | 152.5 | 345.6 | 1997.1322 | 98.3 0.112 HARTKOPF |
| | COU 612 | 56.00 | 1971.07 | 0.405 | 164.4 | 207.8 | 0.252 DOCOBO |
| 15390+2545 | | 6.4286 | 0.212 | 137.7 | 131.2 | 1996.342 | 204.8 0.257 & LING |
| | COU 1291 | 49.62 | 2011.71 | 0.302 | 122.2 | 288.0 | 0.174 DOCOBO |
| 17075+3810 | | 7.2551 | 0.169 | 61.2 | 282.4 | 1996.415 | 291.1 0.175 & LING |
| | KUI 83 | 23.99 | 1961.21 | 0.205 | 334.5 | 124.1 | 0.343 MASON & |
| 17370+2743 | | 15.0063 | 0.288 | 164.2 | 23.2 | 1997.7198 | 114.0 0.337 HARTKOPF |
| | CHARA 63 | 19.15 | 1999.73 | 0.008 | 63.2 | 230.5 | 0.082 OLEVIC & |
| 17375+2419 | | 18.8005 | 0.092 | 115.2 | 241.0 | 1995.1673 | 218.7 0.068 JOVANOVIC |
| 11023 | STF 2275 | 525.46 | 2012.87 | 0.477 | 131.6 | 283.1 | 0.153 POPOVIC |
| 18033+3921 | | 0.6851 | 0.679 | 78.0 | 142.8 | 1992.323 | 285.4 0.162 |
| 12746 | HU 953 | 300.84 | 2009.73 | 0.449 | 8.5 | 287.7 | 0.254 ZIVKOV & |
| 19389+3514 | | 1.1967 | 0.736 | 54.7 | 314.7 | 1995.62 | 292.9 0.255 POPOVIC |

FIN 328 28.24 2002.70 0.392 152.0 37.2 0.241 MASON &
21044-1951 12.7479 0.266 161.5 219.3 1996.5377 22.3 0.219 HARTKOPF

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NOTES CONCERNING THE PREVIOUS CIRCULAR

1. Regarding to Olevic & Jovanovic's orbit for McA 13 Aa, there is an earlier orbit based on speckle and radial velocity data of Mason et al. (A. J. 1997, 114, 1607). Olevic & Jovanovic's orbit is no improvement and was included in I. C. No. 135 by printing error.

2. Dr. B. Mason notes that the double star announced by Dr. R. Pavlovic may be the known double star L 15, the coordinates, magnitudes and relative position are all very similar.

3. The orbit calculated by Olevic & Jovanovic for ADS 2849 (03545+0511) corresponds to the pair BC.

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IN MEMORIAM, DR. D. J. ZULEVIC (1937 - 1998)

Danilo J. Zulevic, Astronomer at Belgrade Observatory died unexpectedly on July 14, 1998. He made over 4000 measures of double stars using filar micromerer at Zeiss Refractor 65/1055cm of Belgrade Observatory. In IAU Comm. 26 Information Circular's (No 50 - 132) he published 58 orbits by 53 binary stars and the duplicity of the star BD +33 3323.

G.M. Popovic

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ANNOUNCEMENT

The United States Naval Observatory (USNO) maintains the Washington Double Star Catalog (WDS) which is the world's principal database of astrometric double and multiple star data. The WDS Catalog contains positions (J2000), discoverer designations, epochs, position angles, separations, magnitudes, spectral types, proper motions, and, when available, Durchmusterung numbers and Notes for the components of more than 81,000 systems based on more than 480,000 means.

In the past only the most recent (1996.0) published version (http://aries.usno.navy.mil/ad/wds/wds.html : A&AS, 125, 523; 1997) was available. We are now making available on the web (http://aries.usno.navy.mil/ad/wds/wdsnew.html) our working version of the WDS. This contains the most recent observational data available and includes systems newly discovered by the Hipparcos satellite. While Hipparcos did not provide discovery designations these are the primary system identifier in visual double star astronomy. A cross reference file of these 3406 systems containing the abbreviated coordinate, as well as the HDS and HIP numbers is provided. A cross reference of WDS entries which had Hipparcos problem solutions (i.e., the G, X, O, V double star solutions as well as those which were suspected non-single) is also available.

Also, new to the WDS is an additional indicator in columns 100-102. This ``D'' note code indicates the system has a separate Delta-M determined (in addition to those determined during astrometric measures). These results, primarily from Charles Worley's Delta-m catalog plus other lunar occultation and

interferometric determinations will eventually be incorporated in a weighted scheme for the magnitude listings of the WDS data line.

Addition of the Delta-m information as well as other more significant changes to the WDS database is currently under consideration. The input from regular users of the database and other interested parties is greatly appreciated in our efforts to make the WDS as helpful and user-friendly as possible. Please provide comments on the format of the WDS, missed references, or any other items of interest to you on our Comment form.

Information is being added to the database on a continuing basis, and this edition of the WDS will also be updated regularly.

In addition to the WDS Hipparcos problem star cross reference we will also be adding a preliminary version of the 5th Orbit Catalog to this site soon.

You may request a reasonable amount of information from the double star catalog by e-mail. While our turn around on email requests is less than 24 hours, it is our hope to eventually add cgi scripts so the user may get data immediately.

If you have any comments or questions we would be grateful to receive them via email (bdm@draco.usno.navy.mil), postal mail (Brian D. Mason, Astrometry Department, U. S. Naval Observatory, 3450 Massachusetts Avenue NW, Washington DC 20392-5420), or via our web comment form (http://aries.usno.navy.mil/ad/wds/wds_comment.html).

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The deadline for contributions to Information Circular No. 137 is:

February 15th 1999

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