

[Date] 2024.1.15 [Approx hour] 11.5

[Star] UCAC4 526-017964

[Asteroid] (1428)Mombasa

[Observer] 1: Katsuhiko Kitazaki 2:

[Location] Musashino, JPN

[Longitude] 139o33'41.3" E

[Latitude] 35o42'36.9" N

[Altitude] 66m

[Datum] WGS84

[Event time] D: 11h31m59.108s +/- 0.059s (UTC) S/N=2.74

R: 11h32m02.631s +/- 0.056s (UTC) S/N=2.78

[Recorded] From 11h31m0s

To 11h33m0s

[Mag. drop] D: Measured: 1.92 ; Predicted: 1.7

R: Measured: 1.93 ; Predicted: 1.7

[Telescope] Aperture: 40cm Type: Other (Cassegrain) F=2.5 (x0.25 Reducer)

[Camera] Analog or Digital video , Model= ASI290MM

[Exposure] Set: 91.5msec, Measure: 91.5msec

[Setting] Area: 1936x400 ; Binning=2

Gain: 370 ; Brightness: 36 ; High Speed Mode: Off

[Time keep] GPS ; Model: GHS-OSD

[Evidence] GPS Time Log : Recorded ; Screen shot: Recorded

[Condition] Stability: Strong flickering Transparency: Clear

[Remarks] Due to strong winds, seeing was very poor and the star became enlarged.

[Additional comment]

</Observations>

<Event>

<Date>2024|1|15|11.5</Date>

<Details>

<Star>UCAC4|526-017964|0||0.0000000000|0.0000000000|0.00|0.00|0.00|0|0.00000000|0.000000|25.00|25.00|25.00|0</Star>

<Asteroid>1428|Mombasa|0.00000000|0.00000000|0.00000000|0.00000000|0.00000000|0.00000000|1.00000|0.00000|0.0|1.0|20.00</Asteroid>

</Details>

<Observations>

<Observer>

<ID>1|Katsuhiko Kitazaki||0|Musashino|JPN|+139 33 41.3|+35 42 36.9|66| |40|6|a|a</ID>

<Conditions>3|1|2.76||Due to strong winds, seeing was very poor and the star became enlarged.</Conditions>

<D>11 31 59.108|D|0.059||| </D>

<R>11 32 2.631|R|0.056||| </R>

</Observer>

</Observations>

<LastEdited>2023|7|17</LastEdited>

</Event>

</Observations>

Text-based Light curve

Date: 2024-1-15 11:31:53.42: 15.46: 170

Star: 0: 0: 0: 0: 0-0-0: 526-017964

Observer: +139:33:41.3: +35:42:36.9: 66: Katsuhiko Kitazaki

Object: Asteroid: 1428: Mombasa

Values:1217:810:1045:1193:1231:980:1693:964:961:1281:690:1038:776:1602:69:1326:557:1430:1360:1234:914:892:1282:1215:1394:1472:991:735:1314:1025:1173:1353:1429:1082:1003:707:1748:1246:581:696:1301:1385:1479:1084:937:829:1878:982:892:

1005:1699:1180:1433:872:931:1447:301:665:941:1111:1261:1922:790:17:139:864:271:202:165:121:228:167:104:54:14:141:183:93:303:104:182:206:239:43:139:170:202:590:480:235:15:120:374:447:109:211:91:353:116:

97:242:1014:1003:854:893:1210:846:953:1200:902:687:1611:1400:863:1388:1124:1500:1674:775:1403:1502:947:1446:808:746:499:983:864:1018:1377:1464:1622:1057:1211:1042:1755:1442:1127:1616:1099:1102:915:1458:1268:384:1450:1456:1529:864:

1147:923:743:1283:957:1284:520:1433:965:1462:372:1481:1578:570:899:1149:1168:1034:490:906:774

A screenshot of a GPS device screen. The top part shows location data: Date (UTC) 2024.01.15, Time Zone of this PC Localtime (UTC) 11:24:50, GPS Time (UTC) 20:24:50, Longitude 139° 33' 41.466" E, Latitude 35° 42' 37.194" N, Antenna Altitude 55.2m, Sea Level Height 35.5m, HDOP 1.1. Below this is a table of GPS data points. The bottom part of the screen shows a light curve plot with a grid and data points.

A light curve plot for the occultation of UCAC4 526-017964 by (1428) Mombasa on 2024 Jan 15. The plot shows light intensity (y-axis, 0 to 1800) versus time (x-axis, 600 to 750 seconds). A sharp drop in intensity is visible at approximately 645 seconds. The plot includes a title bar with the event name and observer, and a legend box with statistical data. The legend box contains the following information: Event Time : 11h31m59.108s +/- 0.059s, Mag Drop (predicted): 1.7 Mag., Mag Drop (measured): 1.92 Mag., -Statistical analysis of Light Intensity-, Combined : 1143.8 Average Stdv n 92, Background: 194.3 140.8 27, Noise Level (N/S) Upper Lower (S/N), Total event: 0.3656 0.1482 2.74, Contact Angle: Predict=0.0 Measure=0.0, - Event Time, Observed with 0 frame integration, Event Time : 11h31m59.108s +/- 0.059s. The plot also includes a frame number and frame center information at the bottom: Frame No.645.0 / Frame Centre= 11h31m59.1891s, Frame End= 59.2349s / Event centre=Frame centre -0.081s +/-0.059s / ContactAngle=0.0deg.

A light curve plot for the occultation of UCAC4 526-017964 by (1428) Mombasa on 2024 Jan 15. The plot shows light intensity (y-axis, 0 to 1800) versus time (x-axis, 600 to 750 seconds). A sharp drop in intensity is visible at approximately 645 seconds. The plot includes a title bar with the event name and observer, and a legend box with statistical data. The legend box contains the following information: Event Time : 11h32m02.631s +/- 0.056s, Mag Drop (predicted): 1.7 Mag., Mag Drop (measured): 1.93 Mag., -Statistical analysis of Light Intensity-, Combined : 1168.3 Average Stdv n 92, Background: 197.2 139.1 27, Noise Level (N/S) Upper Lower (S/N), Total event: 0.3596 0.1432 2.78, Contact Angle: Predict=0.0 Measure=0.0, - Event Time, Observed with 0 frame integration, Event Time : 11h32m02.631s +/- 0.056s. The plot also includes a frame number and frame center information at the bottom: Frame No.682.0 / Frame Centre= 11h32m2.5747s, Frame End= 2.6204s / Event centre=Frame centre +0.056s +/-0.056s / ContactAngle=0.0deg.