

(111)Ate occults UCAC4 466-137608

***** Asteroid occultation Report *****

[Date] 2025.12.12 [Approx hour] 13.0
[Star] UCAC4 466-137608 VMag=13.39 RMag=12.82
[Asteroid] (111)Ate 13.17 mag.

[Observer] 1: Katsuhiko Kitazaki 2:
[Location] Musashino, Tokyo, JP
[Longitude] 139o33'41.2" E
[Latitude] 35o42'37.0" N
[Altitude] 66m
[Datum] WGS84

[Event time] D: 13h08m54.282s +/- 0.058s (UTC) S/N=2.85
R: 13h08m59.370s +/- 0.079s (UTC) S/N=2.50
[Predicted Time error] 0.280 sec [RUWE] 0.95

[Recorded] From 13h8m30s
To 13h9m30s

[Mag. drop] D: Measured: Mag Drop (measured): 0.54 Mag. ; Predicted:
Mag Drop (predicted): 0.6 Mag.
R: Measured: Mag Drop (measured): 0.46 Mag. ; Predicted:
Mag Drop (predicted): 0.6 Mag.

[Telescope] Aperture: 40cm Type: Other F=2.6
[Camera] Analog or Digital video , Model= ASI462MM
[Exposure] Set: 99.3msec, Measure: 99.3msec
[Setting] Area: 1936x800 ; Binning=2
Gain: 385 ; Brightness: 0 ; High Speed Mode: Off

[Time keep] GPS ; Model: GT502MGG
[Evidence] GPS Time Log : Recorded ; Screen shot: Recorded

[Condition] Stability: Strong flickering Transparency: Fog
[Remarks] The target star was at a low altitude of 22° , causing very strong flickering. Additionally, thin clouds obscured the sky, preventing a clear view. Consequently, an S/N ratio of 3.0 could not be achieved.

[Additional comment]
Capture : ZWO ASI462MM imaging data to PC using SharpCap4.1.13800.0
Photometry analysis : Analyzed with software.limovie1.0.1.8 Pneuma
Photometry method : PSF photometry / Aperture photometry
(Sharp4.1 ON,Tracking ON, Linked Tracking=OFF, Star's Angular Diameter=ON)
Data Release Site
https://drive.google.com/drive/folders/1Y6ufIGkqLmP3ZfVN0LUYqbpNMobgDTxU?usp=sharing

<Observations>

<Event>

<Date>2025|12|12|13.0</Date>

<Details>

<Star>UCAC4|466-

137608|0||0.000000000|0.00000000|0.00|0.00|0.00|0|0.00000000|0.00000000|0.00|25.00|25.00|25.00|0</Star>

<Asteroid>111|Ate|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, Tokyo|JP|+139 33 41.2|+35 42 37.0|66| 40|6|a|a</ID>

<Conditions>3|2|2.67||The target star was at a low altitude of 22° , causing very strong flickering. Additionally, thin clouds obscured the sky, preventing a clear view. Consequently, an S/N ratio of 3.0 could not be

achieved.</Conditions>

<D>13 8 54.282|D|0.058||| </D>

<R>13 8 59.370|R|0.079||| </R>

</Observer>

</Observations>

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

</Event>

</Observations>

Text-based Light curve

(111)_20251212_130848_Katsuhiko_Kitazaki.dat

Date: 2025-12-12 13:8:48.61: 16.78: 170

Star: 0: 0: 0: 0: 0-0-0: 466-137608

Observer: +139:33:41.2: +35:42:37.0: 66: Katsuhiko Kitazaki

Object: Asteroid: 111: Ate

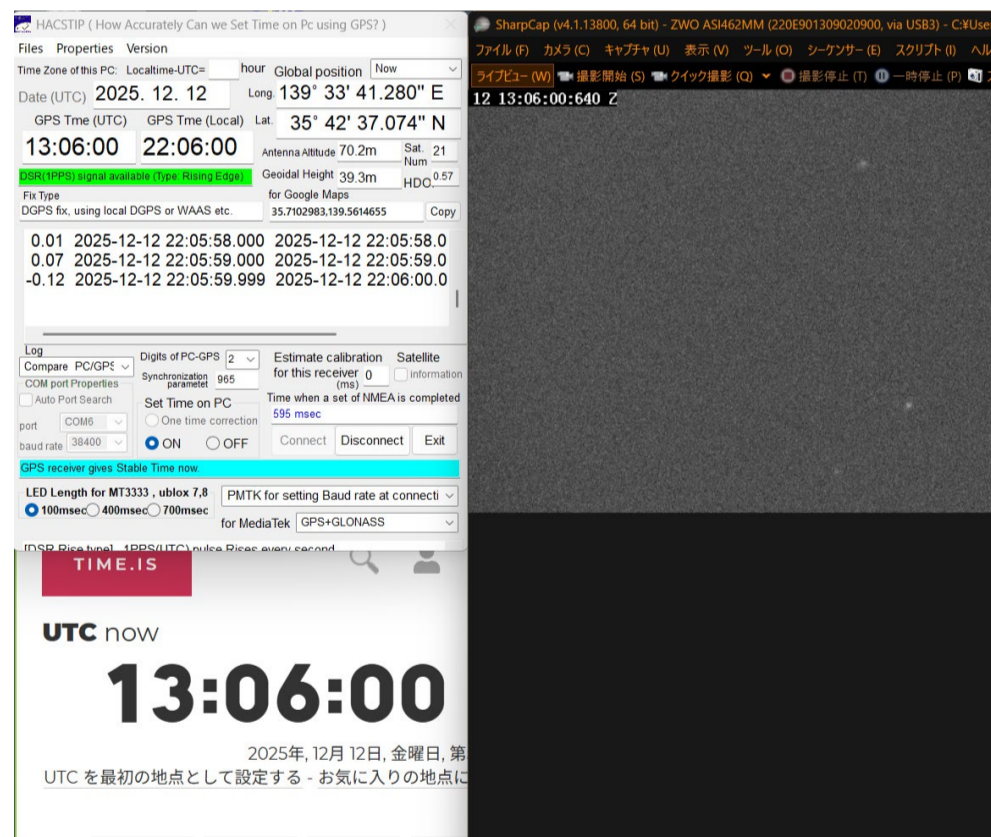
Values:1548:1551:1244:1926:1204:1386:1528:1372:1738:1315:1348:1639:1367:1469:1254:1374:1401:1795:1599:1289:1200:1696:1157:1644:1558:1465:1357:1550:1970:1614:1278:1369:1598:1650:1228:1359:1980:1617:1424:1516:1664:1421:1548:1672:1673:1942:1660:1651:1377:

1640:1243:1505:1824:1639:1130:1284:1644:1329:1154:866:1004:1002:919:1036:1192:888:1450:1133:656:960:1108:1153:735:767:962:999:1261:815:1100:1372:1225:840:941:898:1025:1050:860:1056:846:802:890:875:837:789:980:786:976:917:770:

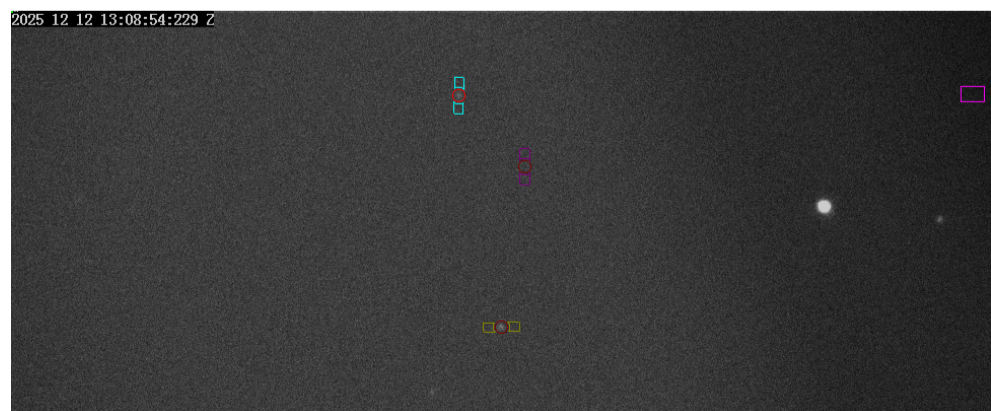
843:1138:852:1217:896:942:830:853:602:948:1630:1410:1568:1352:1501:1468:1227:1850:1316:1326:1556:1179:1853:1494:1585:1457:1240:1289:1724:1657:1538:1476:1120:1444:1073:1239:1042:1552:1380:1804:1809:1348:1782:1390:1615:1340:1334:1292:1589:1402:

1168:1699:1462:1783:1794:1619:1302:1100:1827:1447:1489:1242:1596:1599:1424:1297:1466:1709:1219:1112:1550

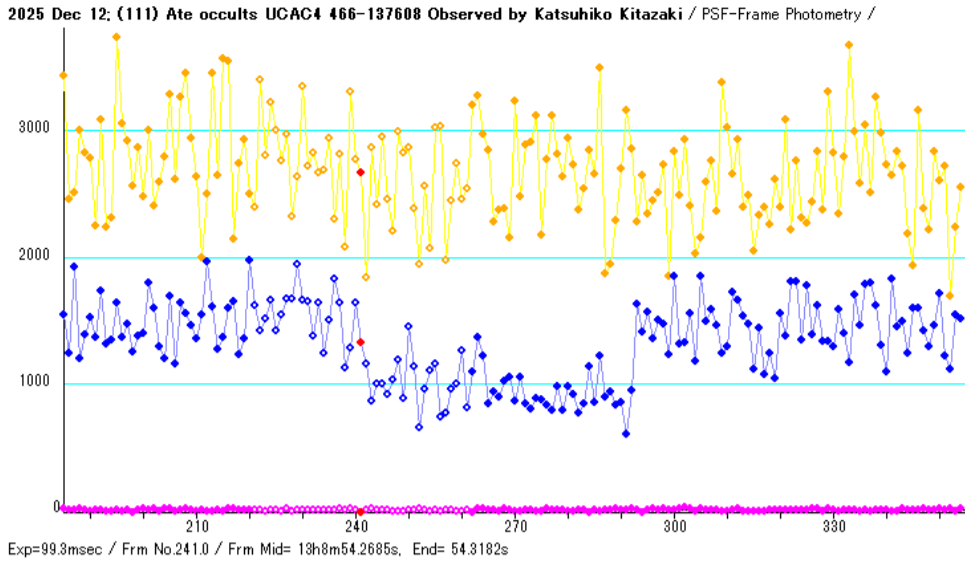
UTC Time Evidence



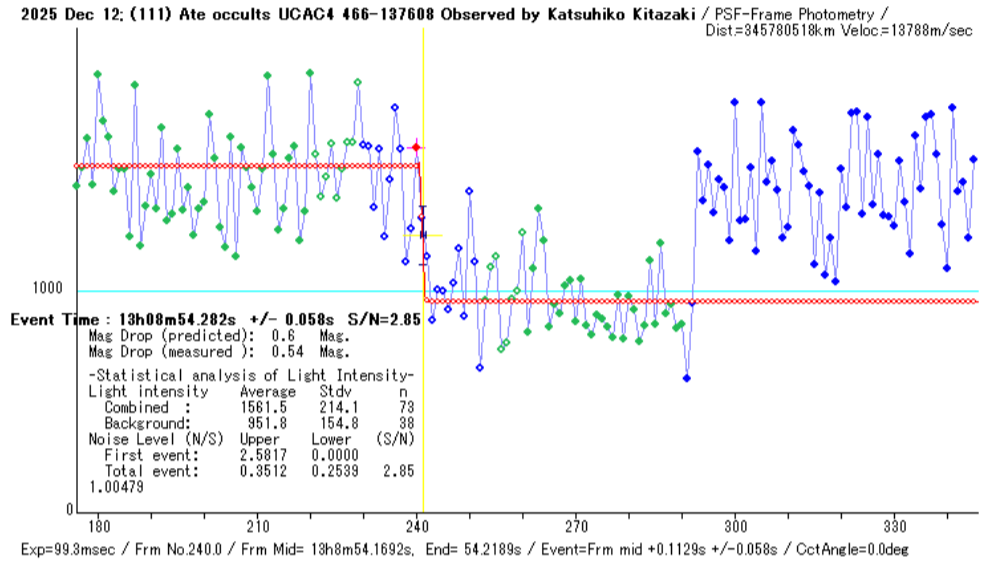
Target Star Position (Target star = Blue, Comparison star = Yellow, Pink = Background metering)



Light curve (Target star = Blue line, Target star = Yellow line)



Time analysis of disappearance



Time analysis of reappearance

