

(92167)1999 XG166 occults Tycho2 2910-01389-1

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

[Date] 2025.12.12 [Approx hour] 19.1
[Star] Tycho2 2910-01389-1 VMag=12.64 RMag=12.20
[Asteroid] (92167)1999 XG166 17.75 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: 18h59m21.121s +/- 0.007s (UTC) S/N=11.12
R: 18h59m21.795s +/- 0.007s (UTC) S/N=10.70
[Predicted Time error] 0.298 sec [RUWE] 1.00

[Recorded] From 18h59m00s
To 19h04m16s

[Mag. drop] D: Measured: Mag Drop (measured): 2.96 Mag. ; Predicted:
Mag Drop (predicted): 5.1 Mag.
R: Measured: Mag Drop (measured): 3.11 Mag. ; Predicted:
Mag Drop (predicted): 5.1 Mag.

[Telescope] Aperture: 40cm Type: Classical Cassegrain
F=2.6 (Reducer x0.26)

[Camera] Analog or Digital video , Model= ASI462MM
[Exposure] Set: 76.5msec, Measure: 76.5msec
[Setting] Area: 1936x600 ; Binning=2
Gain: 420 ; Brightness: 14 ; High Speed Mode: Off

[Time keep] GPS ; Model: GT502MGG(PPSPUcorrection -0.0102028s)
[Evidence] GPS Time Log : None ; Screen shot: Recorded

[Condition] Stability: Strong flickering Transparency: Clear

[Remarks] HHACSTIP stopped during observation, so the time log was not
recorded. Approximately 30 seconds later, HACSTIP was restarted and the time
log was recorded. From this time log, it was confirmed that the PC clock remained
synchronized with UTC during the HACSTIP stoppage.

[Additional comment]

I forgot to stop the video recording, resulting in a 5m16s recording. The video
for the report was edited with cuts to reduce the data size.

Capture : ZWO ASI290MM imaging data to PC using SharpCap4.1.13800.0

Photometry analysis : Analyzed with software.limovie1.0.1.8 Pneuma

Photometry method : PSF photometry(Sharp4.1 ON,Linked
Tracking=ON,Star's Angular Diameter=ON)

URL Data Release Site

https://drive.google.com/drive/folders/1FBdfZj_F3RSxfoYHrKXLxuXuORyT
KmQO?usp=sharing

<Observations>

<Event>
<Date>2025|12|12|19.1</Date>
<Details>
<Star>Tycho2|2910-01389-
1|0||0.000000000|0.000000000|0.00|0.00|0.00|0|0.00000000|0.0000000|25.
00|25.00|25.00|0</Star>
<Asteroid>92167|1999
XG166|0.00000000|0.00000000|0.0000000|0.0000000|0.0000000|0.0000000|
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|1|10.91||HHACSTIP stopped during observation, so
the time log was not recorded. Approximately 30 seconds later, HACSTIP was
restarted and the time log was recorded. From this time log, it was confirmed that
the PC clock remained synchronized with UTC during the HACSTIP
stoppage.</Conditions>

<D>18 59 21.121|D|0.007||| </D>
<R>18 59 21.795|R|0.007||| </R>
</Observer>
</Observations>
<LastEdited>2023|7|17</LastEdited>
</Event>
</Observations>

Text-based Light curve

(92167)_20251212_185918_Katsuhiko_Kitazaki.dat

Date: 2025-12-12 18:59:18.40: 6.43: 85

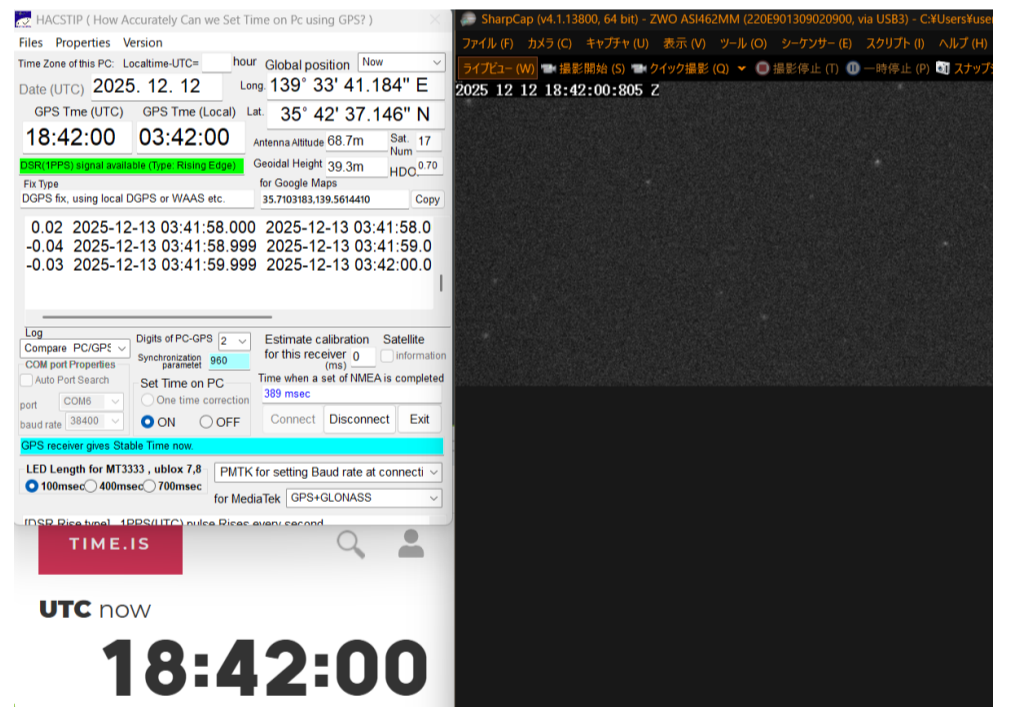
Star: 0: 0: 0: 0: 2910-01389-1: 0-0

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

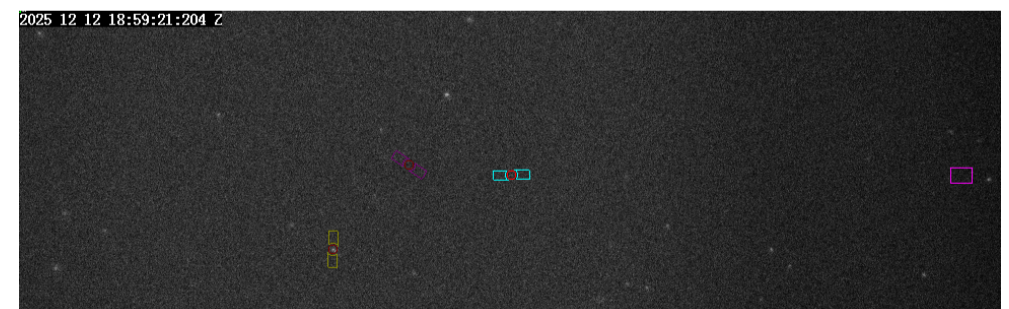
Object: Asteroid: 92167: 1999 XG166

Values:1625:1432:1480:1650:1732:1501:1346:1539:1744:1581:1749:1512:1373
:1654:1574:1603:1690:1435:1786:1741:1604:1887:1785:1646:1645:1580:1622:
1682:1642:1505:1788:1746:1345:1695:1612:1639:91:136:24:50:203:-
40:144:125:208:1683:1682:1458:1709:
1357:1327:1604:1851:1581:1660:1545:1507:1586:1733:1685:1763:1600:1564:1
456:1529:1606:1440:1444:1653:1612:1548:1717:1526:1654:1495:1590:1498:16
39:1531:1555:1636:1498:1616:1508:1869

UTC Time Evidence

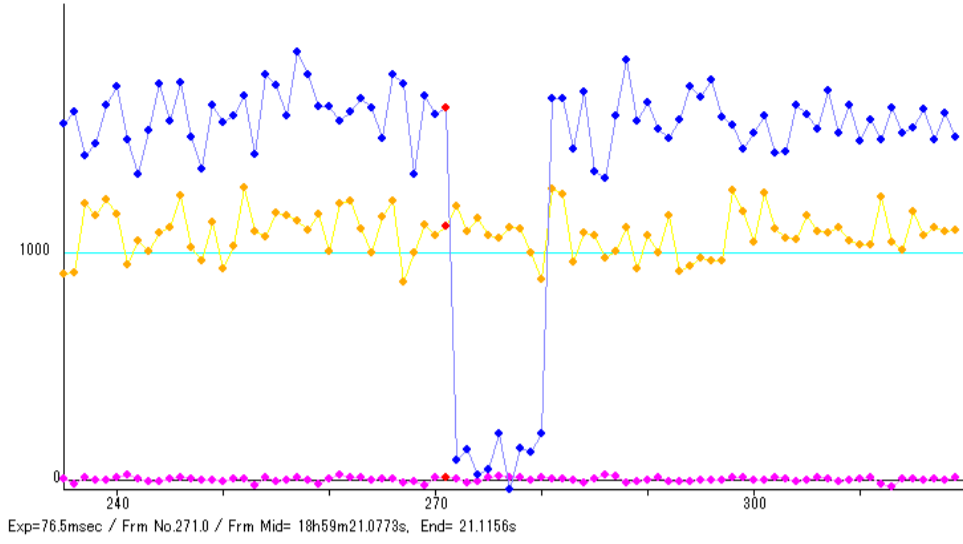


Target Star Position (Target star = Blue, Comparison star = Yellow, Pink =
Background metering)



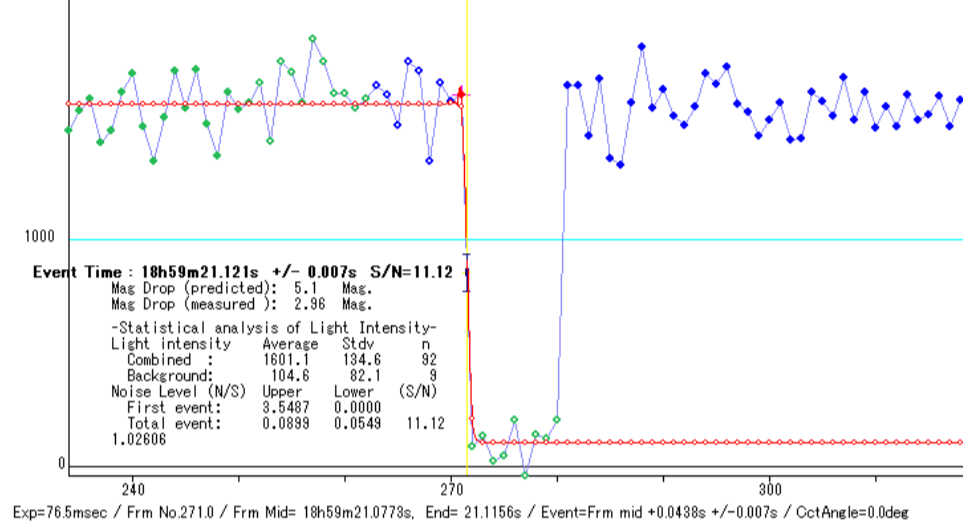
Light curve (Target star = Blue line, Target star = Yellow line)

2025 Dec 12: (92167) 1999 XG166 occults TYC 2910-01389-1 Observed by Katsuhiko Kitazaki / PSF-Frame Photometry /



Time analysis of disappearance

2025 Dec 12: (92167) 1999 XG166 occults TYC 2910-01389-1 Observed by Katsuhiko Kitazaki / PSF-Frame Photometry /
Dist=260928606km Veloc=11457m/sec



Time analysis of reappearance

2025 Dec 12: (92167) 1999 XG166 occults TYC 2910-01389-1 Observed by Katsuhiko Kitazaki / PSF-Frame Photometry /
Dist=260928606km Veloc=11457m/sec

