

(46670)1996 NU occults (46670)1996 NU

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

[Date] 2026. 1.16 [Approx hour] 9.7
[Star] UCAC4 406-000551 VMag=12.94 RMag=12.52
[Asteroid] (46670)1996 NU 18.92 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: 09h42m17.008s +/- 0.024s (UTC) S/N=5.0
D: 09h42m17.319s +/- 0.225s (UTC) S/N=1.5
R: 09h42m17.799s +/- 0.019s (UTC) S/N=6.42
R: 09h42m17.799s +/- 0.019s (UTC) S/N=6.42

[Predicted Time error] 0.104 sec [RUWE] 0.95

[Recorded] From 9h41m40s
To 9h43m10s

[Mag. drop] D: Measured: ; Predicted:
D: Measured: ; Predicted:
R: Measured: Mag Drop (measured): 4.38 Mag. ; Predicted:
Mag Drop (predicted): 6.0 Mag.
R: Measured: Mag Drop (measured): 4.38 Mag. ; Predicted:
Mag Drop (predicted): 6.0 Mag.

[Telescope] Aperture: 40cm Type: Classical Cassegrain
F=2.6 (Reducer x0.26)
[Camera] Analog or Digital video , Model= ASI462MM
[Exposure] Set: 99.3msec, Measure: 99.3msec
[Setting] Area: 1936x600 ; Binning=2
Gain: 360 ; Brightness: 0 ; High Speed Mode: Off

[Time keep] GPS ; Model: GT502MGG(PPSPUcorrection-0.0110316s)
[Evidence] GPS Time Log : Recorded ; Screen shot: Recorded

[Condition] Stability: Strong flickering Transparency: Thin cloud <2

[Remarks] Absorption due to thin clouds was observed in the light curve, so a correction for absorption was applied. A distinct step was observed in the disappearance, but not in the reappearance.

[Additional comment]

Capture : ZWO ASI 462MM imaging data to PC using SharpCap4.1.14013.0
Photometry analysis : Analyzed with software.limovie1.0.1.8 Pneuma
Photometry method : PSF photometry
(Sharp4.1 ON,Tracking OFF, Linked Tracking=ON, Correction for absorption=ON, Double Star Analyzing=ON, Star's Angular Diameter=ON)
Data Release Site
https://drive.google.com/drive/folders/1tZzeTkfh0O2ScNX6OYpeQprjqmR8gmuD?usp=sharing

<Observations>

<Event>
<Date>2026|1|16| 9.7</Date>
<Details>
<Star>UCAC4|406-000551|0||0.000000000|0.000000000|0.00|0.00|0.00|0|0.00000000|0.00000000|25.00|25.00|25.00|0</Star>
<Asteroid>46670|1996 NU|0.00000000|0.00000000|0.00000000|0.00000000|0.00000000|0.00000000|1.0000|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|3|5.71||Absorption due to thin clouds was observed in the light curve, so a correction for absorption was applied. A distinct step was observed in the disappearance, but not in the reappearance.</Conditions>

<D> 9 42 17.008|D|0.024||| </D>

<R> 9 42 17.799|R|0.019||| </R>

</Observer>

<Observer>

<ID>2|Katsuhiko Kitazaki||0|Musashino, Tokyo|JP|+139 33 41.2|+35 42 37.0|66| |40|6|a|a</ID>

<Conditions>3|3|3.96||Absorption due to thin clouds was observed in the light curve, so a correction for absorption was applied. A distinct step was observed in the disappearance, but not in the reappearance.</Conditions>

<D> 9 42 17.319|d|0.225||| </D>

<R> 9 42 17.799|r|0.019||| </R>

</Observer>

</Observations>

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

</Event>

</Observations>

Text-based Light curve

(46670)_20260116_094213_Katsuhiko_Kitazaki.dat

Date: 2026-1-16 9:42:13.20: 8.34: 85

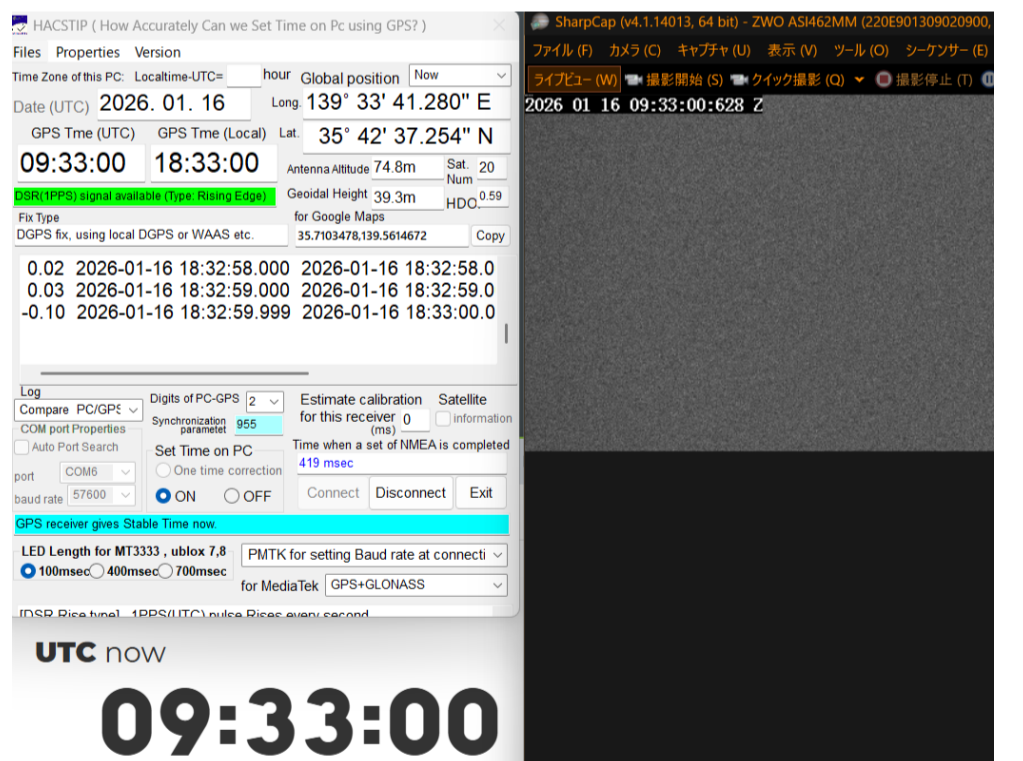
Star: 0: 0: 0: 0: 0-0-0: 406-000551

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

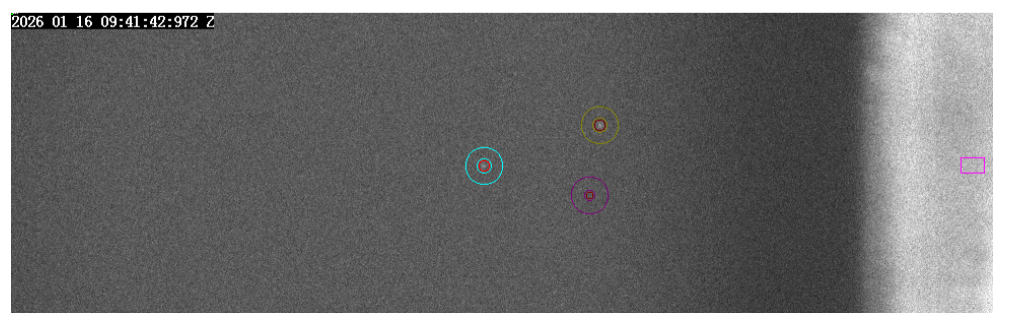
Object: Asteroid: 46670: 1996 NU

Values:500:347:423:549:536:516:385:364:498:634:494:532:576:450:396:573:45 7:523:458:478:539:554:440:469:428:499:570:441:406:394:442:477:460:549:438 :546:446:480:417:128:114:116:8:9:-41:6:114:482:509: 497:482:480:576:486:426:453:375:466:514:441:430:473:545:547:638:544:464:5 24:406:555:599:461:519:569:557:593:392:441:522:456:465:490:531:425:472***

UTC Time Evidence

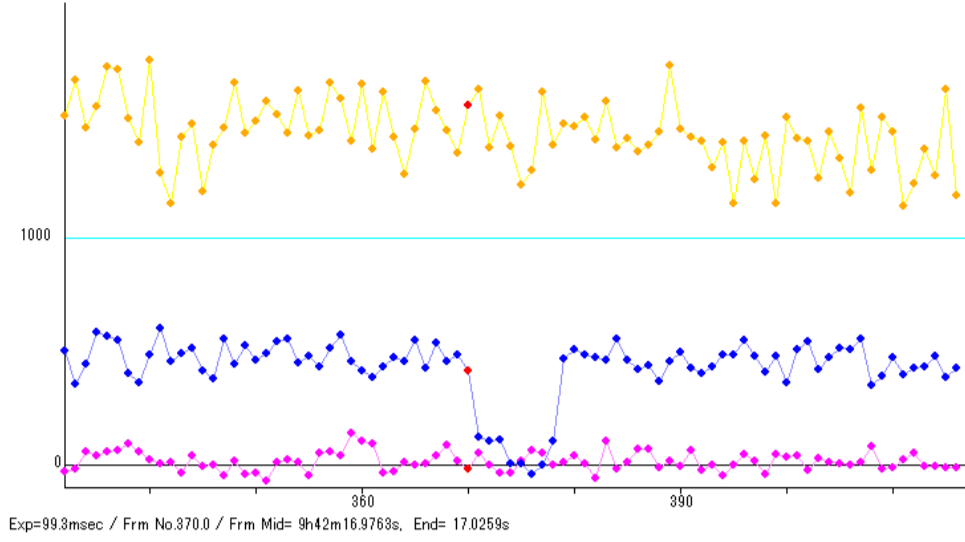


Target Star Position (Target star = Blue, Comparison star = Yellow, Pink = Background metering)



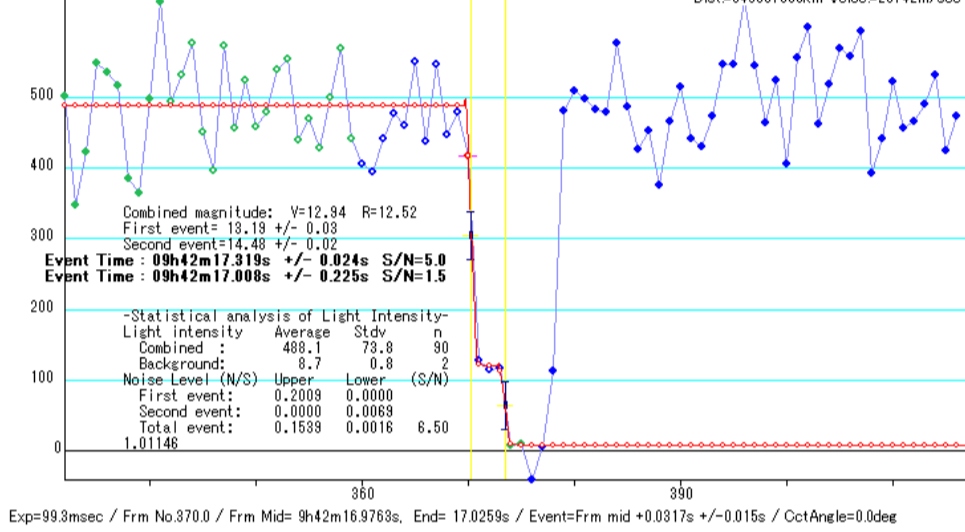
Light curve (Target star = Blue line, Target star = Yellow line
Background = Pink Line)

2026 Jan 16: (46670) 1996 NU occults UCAC4 406-000551 Observed by Katsuhiko Kitazaki / PSF-Frame Photometry /



Time analysis of disappearance

2026 Jan 16: (46670) 1996 NU occults UCAC4 406-000551 Observed by Katsuhiko Kitazaki / PSF-Frame Photometry /
Dist=549637536km Veloc=25742m/sec



Time analysis of reappearance

2026 Jan 16: (46670) 1996 NU occults UCAC4 406-000551 Observed by Katsuhiko Kitazaki / PSF-Frame Photometry /
Dist=549637536km Veloc=25742m/sec

