(21648)Gravanschaik occults UCAC4 445-050174

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

[Date] 2026. 1.12 [Approx hour] 15.1
[Star] UCAC4 445-050174 VMag=12.05 RMag=11.59
[Asteroid] (21648)Gravanschaik 17.27 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: 15h05m47.849s +/- 0.007s (UTC) S/N=11.1 Ctt=47.6
D: 15h05m47.990s +/- 0.058s (UTC) S/N=1.4 Ctt=47.6
R: 15h05m48.217s +/- 0.011s (UTC) S/N=10.19 Ctt=58.8
R: 15h05m48.217s +/- 0.011s (UTC) S/N=10.19 Ctt=58.8
[Predicted Time error] 1.320 sec [RUWE] 0.90

[Recorded] From 15h5m10s
To 15h6m20s

[Mag. drop] D: Measured: ; Predicted:
D: Measured: ; Predicted:
R: Measured: Mag Drop (measured): 3.00 Mag. ; Predicted: Mag Drop (predicted): 5.2 Mag.
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[Telescope] Aperture: 40cm Type: Classical Cassegrain
F=2.6 (Reducer ×0.26)
[Camera] Analog or Digital video , Model= ASI462MM
[Exposure] Set: 47.8msec, Measure: 47.8msec
[Setting] Area: 1936x600 ; Binning=2
Gain: 390 ; Brightness: 55 ; High Speed Mode: Off
[Time keep] GPS ; Model: GT502MGG(PPSPUcorrection -0.0106548s)

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

[Condition] Stability: Strong flickering Transparency: Thin cloud <2
[Remarks] The light curve showed a step(Time difference141ms) during Disappearance but not during Reappearance. However, since both Disappearance and Reappearance exhibited a gentle curve, the contact angle was determined through time analysis.A dimming caused by thin clouds passing by was observed in the latter part of the recorded video, but it did not affect the analysis.

[Additional comment]
Capture ： ZWO ASI 462MMimaging 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,Double Star Analyzing=ON, Star's Angular Diameter=ON)
Data Release Site:
https://drive.google.com/drive/folders/1nKdAlgT148JkQpmnAJapdf7Us6Uv_a-E?usp=sharing

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<Observations>
<Event>
<Date>2026|1|12|15.1</Date>
<Details>
<Star>UCAC4|445-050174|0||0.0000000000|0.000000000|0.00|0.00|0.00|0|0.00000000|0.0000000|25.00|25.00|25.00|0</Star>

<Asteroid>21648|Gravanschaik|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|3|10.64||The light curve showed a step during Disappearance but not during Reappearance. However, since both Disappearance and Reappearance exhibited a gentle curve, the contact angle was determined through time analysis.
A dimming caused by thin clouds passing by was observed in the latter part of the recorded video, but it did not affect the analysis.</Conditions>
<D>15 5 47.849|D|0.007||| </D>
<R>15 5 48.217|R|0.011||| </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|5.79||The light curve showed a step during Disappearance but not during Reappearance. However, since both Disappearance and Reappearance exhibited a gentle curve, the contact angle was determined through time analysis.
A dimming caused by thin clouds passing by was observed in the latter part of the recorded video, but it did not affect the analysis.</Conditions>
<D>15 5 47.990|d|0.058||| </D>
<R>15 5 48.217|r|0.011||| </R>
</Observer>
</Observations>
<LastEdited>2023|7|17</LastEdited>
</Event>
</Observations>

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Text-based Light curve
(21648)_20260112_150547_Katsuhiko_Kitazaki.dat

Date: 2026-1-12 15:5:47.07: 1.96: 42
Star: 0: 0: 0: 0: 0-0-0: 445-050174
Observer: +139:33:41.2: +35:42:37.0: 66: Katsuhiko Kitazaki
Object: Asteroid: 21648: Gravanschaik
Values:1234:1190:1045:1196:1224:1071:1130:1010:1149:1231:1231:1319:1454:1232:1248:1399:666:247:252:138:66:97:52:141:396:1156:1156:1280:1027:975:1123:1130:1166:1110:1073:1199:1225:1242:1107:1169:1201:1270**********
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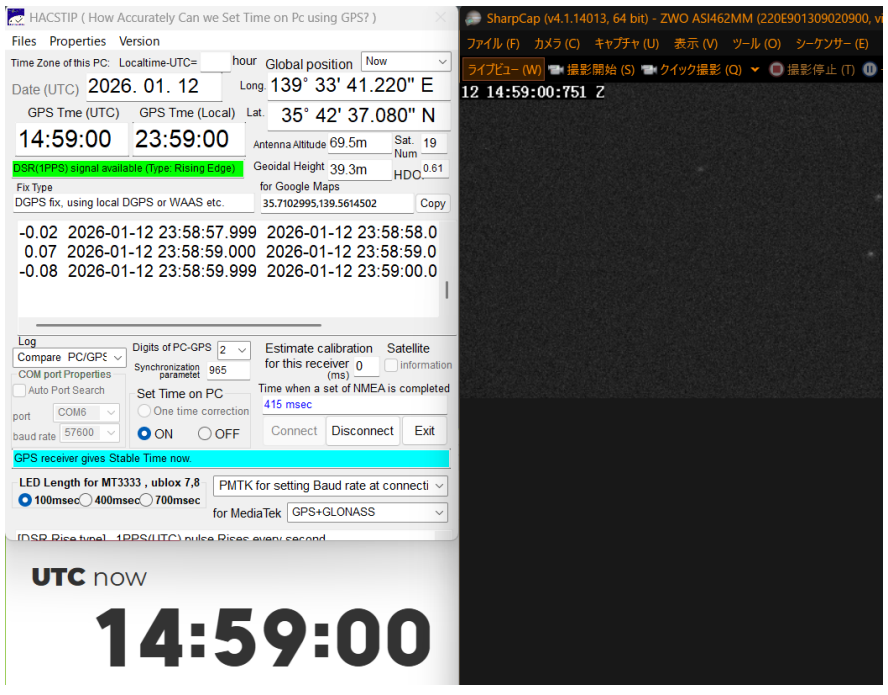
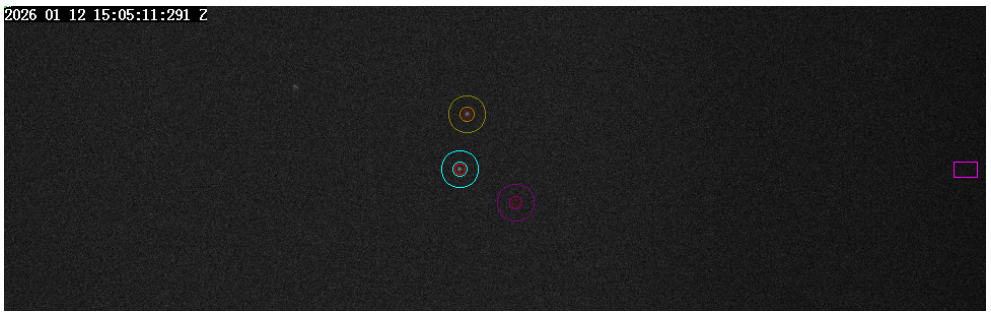
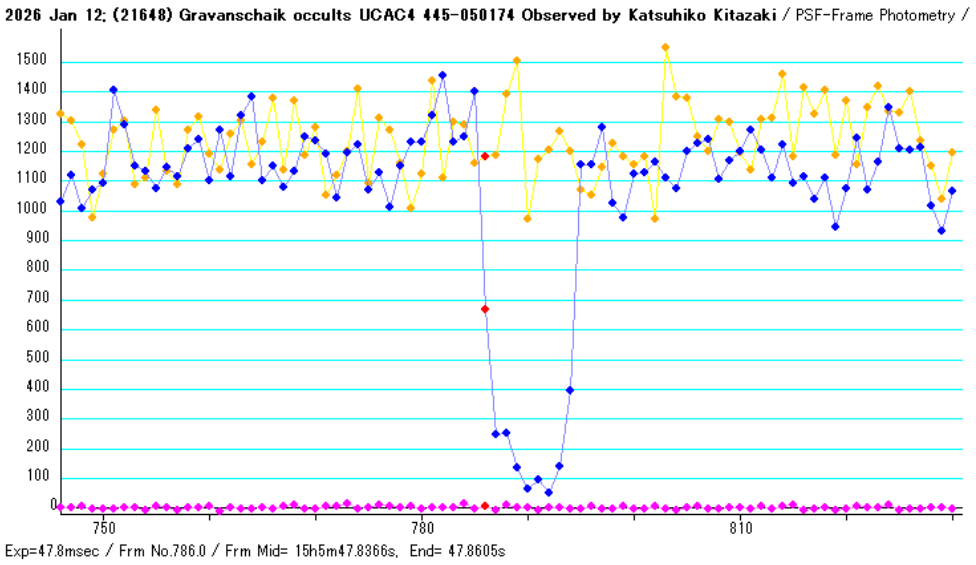
UTC Time Evidence



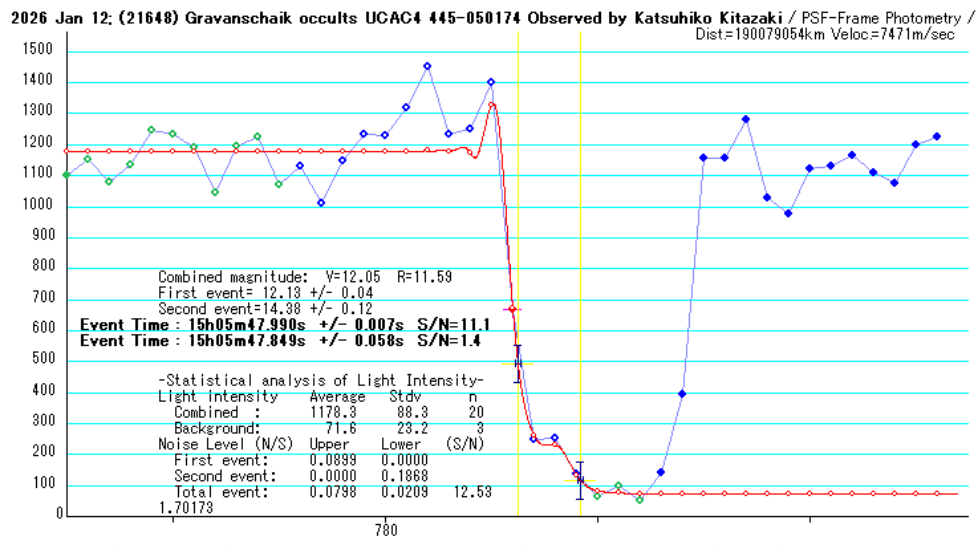
Target Star Position (Target star = Blue, Comparison star = Yellow, Pink = Background metering)



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



Time analysis of disappearance



Time analysis of reappearance