

(83826)2001 UW20 occults UCAC4 639-028455

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

[Date] 2025.11.18 [Approx hour] 15.7
[Star] UCAC4 639-028455 VMag=12.53 RMag=11.93
[Asteroid] (83826)2001 UW20 18.00 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: 15h43m03.424s +/- 0.009s (UTC) S/N=12.69 Ctt=52.8
R: 15h43m03.998s +/- 0.004s (UTC) S/N=13.27
[Predicted Time error] 0.664 sec [RUWE] 1.00

[Recorded] From 15h42m30s
To 15h43m30s

[Mag. drop] D: Measured: Mag Drop (measured): 3.81 Mag.
; Predicted: Mag Drop (predicted): 5.5 Mag.
R: Measured: Mag Drop (measured): 3.81 Mag.
; Predicted: Mag Drop (predicted): 5.5 Mag.

[Telescope] Aperture: 40cm Type: Other F=2.6
[Camera] Analog or Digital video , Model= ASI290MM
[Exposure] Set: 55.8msec, Measure: 55.8msec
[Setting] Area: 1936x600 ; Binning=2
Gain: 410 ; Brightness: 95 ; High Speed Mode: Off
[Time keep] GPS ; Model: GT502MGG
[Evidence] GPS Time Log : Recorded ; Screen shot: Recorded

[Condition] Stability: Strong flickering Transparency: Clear
[Remarks] Two intermediate points are present at the Disappearance
position on the light curve, showing a gradual Mag Drop. Using the analysis
software "Limovie," the contact angle was calculated and the Difulation curve
was fitted.

[Additional comment]
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,Tracking OFF, Linked Tracking=ON, Double Star
Analyzing=OFF, Star's Angular Diameter=ON)

Data Release Site :
https://drive.google.com/drive/folders/1cQb4hwoVHKkYJHUzA0jnhZp2WtTz
u_9w?usp=sharing

<Observations>

<Event>
<Date>2025|11|18|15.7</Date>
<Details>
<Star>UCAC4|639-
028455|0||0.000000000|0.00000000|0.00|0.00|0.00|0|0.0000000|0.0000
00|25.00|25.00|25.00|0</Star>
<Asteroid>83826|2001
UW20|0.0000000|0.0000000|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|12.98||Two intermediate points are present at the

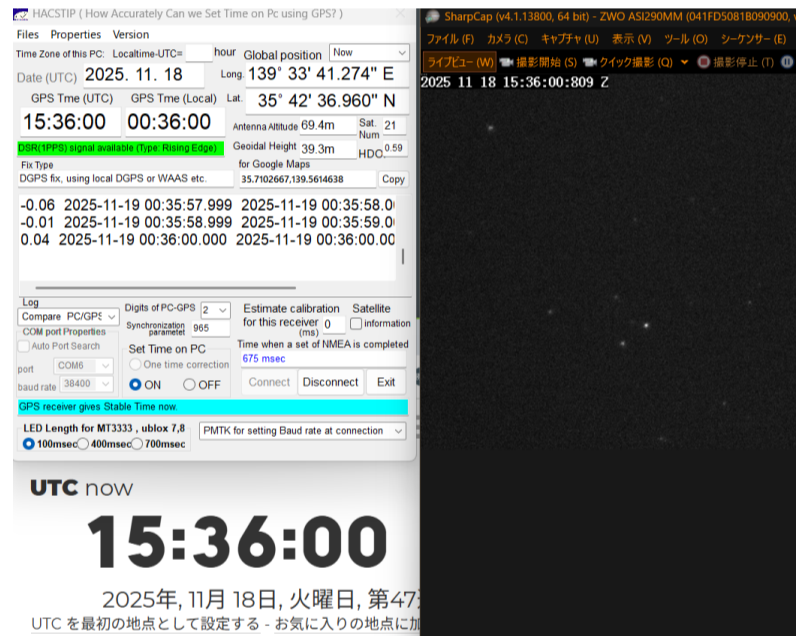
Disappearance position on the light curve, showing a gradual Mag Drop. Using
the analysis software "Limovie," the contact angle was calculated and the
Difulation curve was fitted.</Conditions>

<D>15 43 3.424|D|0.009||| </D>
<R>15 43 3.998|R|0.004||| </R>
</Observer>
</Observations>
<LastEdited>2023|7|17</LastEdited>
</Event>
</Observations>

Text-based Light curve
(83826)_20251118_154301_Katsuhiko_Kitazaki.dat

Date: 2025-11-18 15:43:1.43: 4.69: 85
Star: 0: 0: 0: 0-0-0: 639-028455
Observer: +139:33:41.2: +35:42:37.0: 66: Katsuhiko Kitazaki
Object: Asteroid: 83826: 2001 UW20
Values:868:859:974:889:1001:969:906:911:931:932:960:1054:924:1171:964:93
4:946:874:939:969:978:918:903:1054:1132:950:915:946:948:1034:1061:834:99
7:1001:1052:880:140:100:-10:12:34:-4:31:42:28:41:318:925:992:
1033:957:1035:1033:844:956:964:918:1063:946:934:964:838:927:961:1004:100
2:866:914:1006:852:892:899:929:855:1029:870:882:944:778:913:1016:989:920:
1006:905

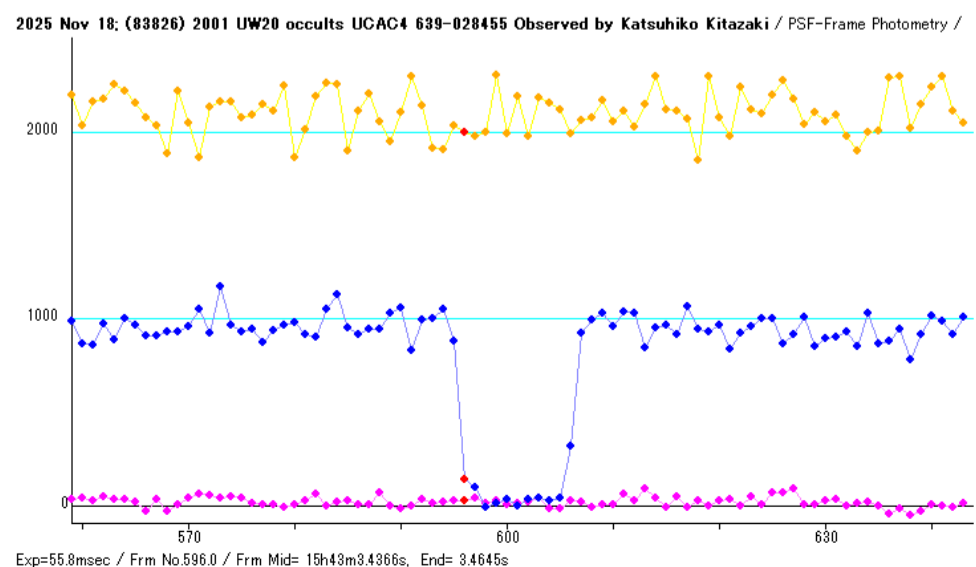
UTC Time Evidence



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

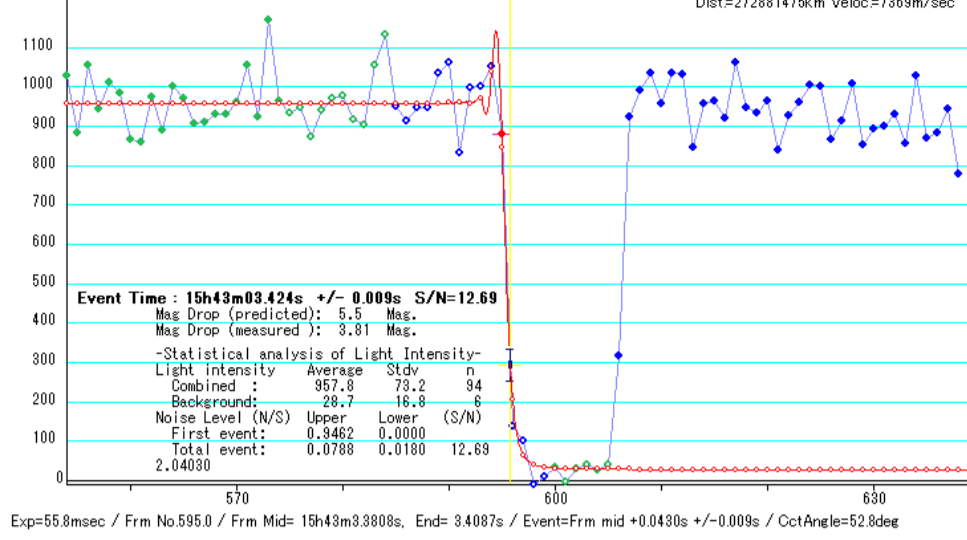


Light curve (Target star = Blue line, Target star = Yellow line)



Time analysis of disappearance

2025 Nov 18: (83826) 2001 UW20 occults UCAC4 639-028455 Observed by Katsuhiko Kitazaki / PSF-Frame Photometry /
Dist=272881476km Veloc=7369m/sec



Time analysis of reappearance

2025 Nov 18: (83826) 2001 UW20 occults UCAC4 639-028455 Observed by Katsuhiko Kitazaki / PSF-Frame Photometry /
Dist=272881476km Veloc=7369m/sec

