

(169)Zelia occults UCAC4 602-017036

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

[Date] 2026. 2. 3 [Approx hour] 16.0
[Star] UCAC4 602-017036 VMag=13.63 RMag=12.92
[Asteroid] (169)Zelia 13.84 mag.

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

[Event time] D: 15h52m39.598s +/- 0.028s (UTC) S/N=3.87 Ctt=0
R: 15h52m47.956s +/- 0.043s (UTC) S/N=3.10 Ctt=0
[Predicted Time error] 1.22 sec [RUWE] 0.95

[Recorded] From 15h52m0s
To 15h53m10s

[Mag. drop] D: Measured: 0.87 ; Predicted: 0.9
R: Measured: 0.81 ; Predicted: 0.9

[Telescope] Aperture: 40cm Type: Classical Cassegrain
F=2.6 (Reducer x0.26)
[Camera] a Analog or Digital video , Model= ZWO ASI462MM
[Exposure] Set: 90.3msec, Measure: 90.3127msec
[Setting] Area: 1936x600 ; Binning=2
Gain: 400 ; Brightness: 57 ; High Speed Mode: Off
[Time keep] a GPS ; Model: GT502MGG-N
[Evidence] GPS Time Log : Recorded ; Screen shot: Recorded

[Condition] Stability: 3 Strong flickering Transparency: 1 Clear
[Remarks] The target star reached an altitude of 29° , with a shallow dimming of 58% in vMag, but the sky was clear.

[Additional comment]
Capture : ZWO ASI462MM imaging data to PC using SharpCap4.1.14013.0
Photometry analysis : Analyzed with software.limovie 2.0.0.4F
Photometry method : PSF photometry (Linked Tracking=ON)
Data Release Site
https://drive.google.com/drive/folders/li2vjWO_IRqlrx2y-
tzyjic5qD2w7vG0n?usp=sharing

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<Event>
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017036|0||0.000000000|0.00000000|0.00|0.00|0.00|0|0.00000000|0.0000
00|25.00|25.00|25.00|0</Star>
<Asteroid>169|Zelia|0.00000000|0.00000000|0.00000000|0.00000000|0.000000
0|0.00000000|1.00000|0.00000|0.0|1.0|20.00</Asteroid>
</Details>
<Observations>
<Observer>
<ID>1|Katsuhiko Kitazaki||0|Musashino, Tokyo|JPN|+139 33
41.2|+35 42 37.0|66| 40|6|a|a</ID>
<Conditions>3|1|||The target star reached an altitude of 29° , with a
shallow dimming of 58% in vMag, but the sky was clear.</Conditions>
<D>15 52 39.598|D|0.028||| </D>
<R>15 52 47.956|D|0.043||| </R>
</Observer>
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<LastEdited>2026|2|9</LastEdited>
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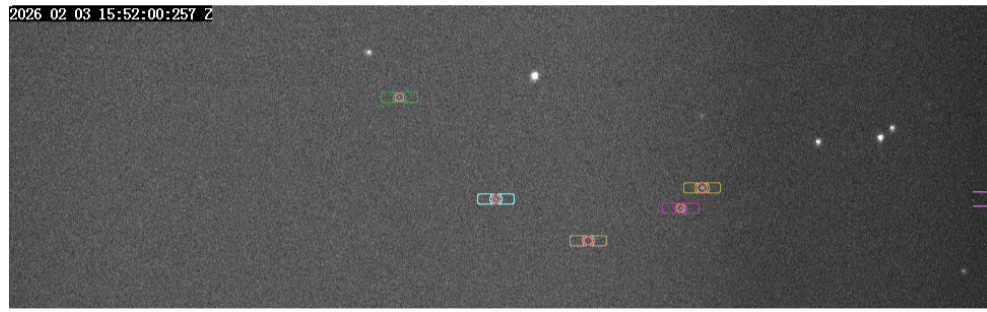
Text-based Light curve
(169)_0000002026 Feb 3_155225_Katsuhiko_Kitazaki.dat

Date: 2026 Feb 3 15:52:25.13: 38.02: 422
Star: 0: 0: 0: 0: 0-0-0: 602-017036
Observer: +139:33:41.2: +35:42:37.0: 66: Katsuhiko Kitazaki
Object: Asteroid: 169: Zelia
Values:79691:97934:98576:76161:78249:75035:68422:63716:
96259:98803:68540:119026:84709:90451:88988:80025:77879:
99131:63910:63568:76361:84607:75405:109619:95337:10290
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9:79328:71056:108888:103498:88540:94872:105178:80836:8
9757:84646:106058:82685:77476:70074:78128:75283:84066:
83674:95007:81939:61738:92854:70195:88456:87451:101693
:101663:82249:77354:109149:85595:105659:109357:72684:9
9204:78979:92520:69216:99130:85544:104291:83600:85722:
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:75994:87516:94702:87261:89515:111811:71869:87383:11009
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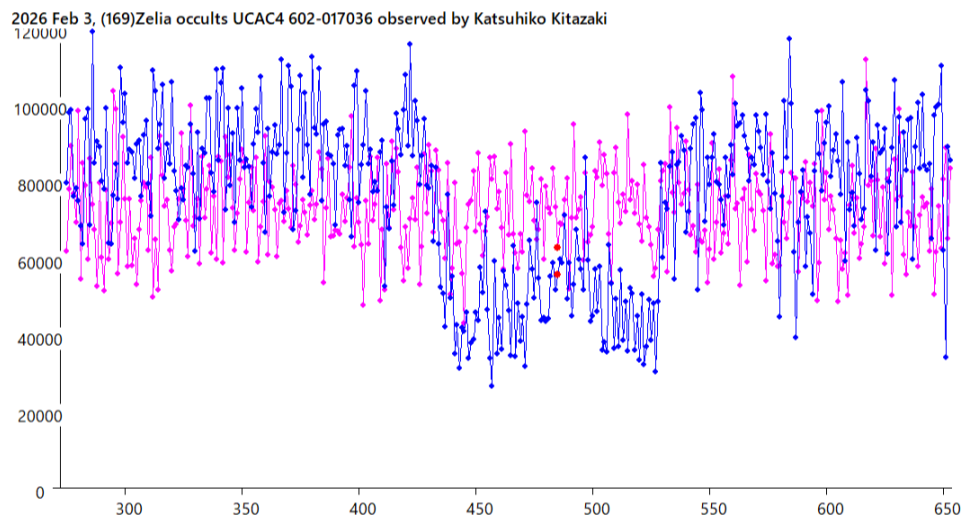
UTC Time Evidence

Files Properties Version
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 Date (UTC) 2026.02.03 Long 139° 33' 41.244" E
 GPS Time (UTC) 15:43:00 GPS Time (Local) 00:43:00 Lat. 35° 42' 37.002" N
 Antenna Altitude 68.6m Sat. Num. 21
 Geoidal Height 39.3m HDOP 0.54
 Fix Type for Google Maps
 DGPS fix, using local DGPS or WAAS etc. 35.7102783,139.564567 Copy
 0.03 2026-02-04 00:42:58.000 2026-02-04 00:42:58.0
 -0.05 2026-02-04 00:42:58.999 2026-02-04 00:42:59.0
 -0.01 2026-02-04 00:42:59.999 2026-02-04 00:43:00.0
 Log
 Compare PC/GPS Digits of PC-GPS 2 Estimate calibration for this receiver 0 Satellite information
 Synchronization parameter 965
 COM port Properties
 Auto Port Search Set Time on PC Time when a set of NMEA is completed 454 msec
 port COM6 One time correction
 baud rate 57600 ON OFF Connect Disconnect Exit
 GPS receiver gives Stable Time now.
 LED Length for MT3333, ublox 7.8 PMTK for setting Baud rate at connect
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UTC now
15:43:00

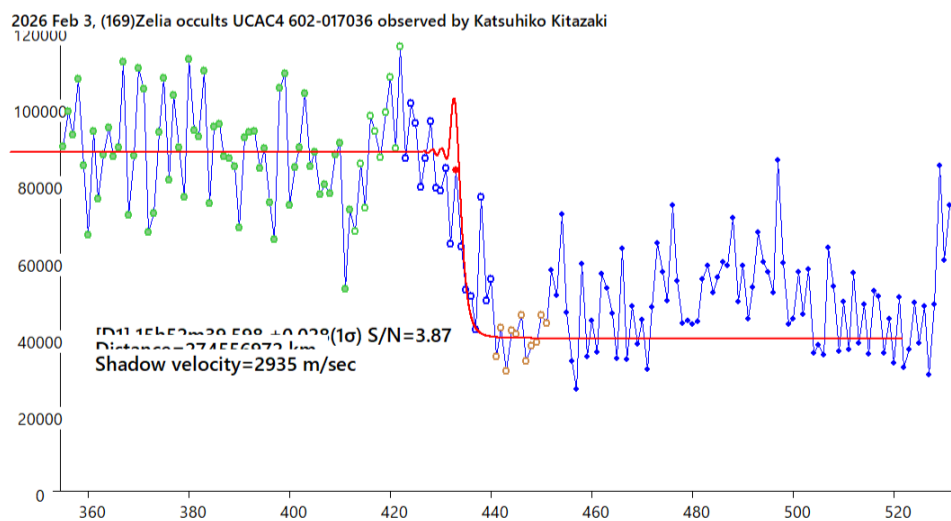
Target Star Position (Target star = Blue, Tracking star=Yellow, Comparison star = Pink, Background metering = Dark Yellow)



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



Time analysis of disappearance



Time analysis of reappearance

