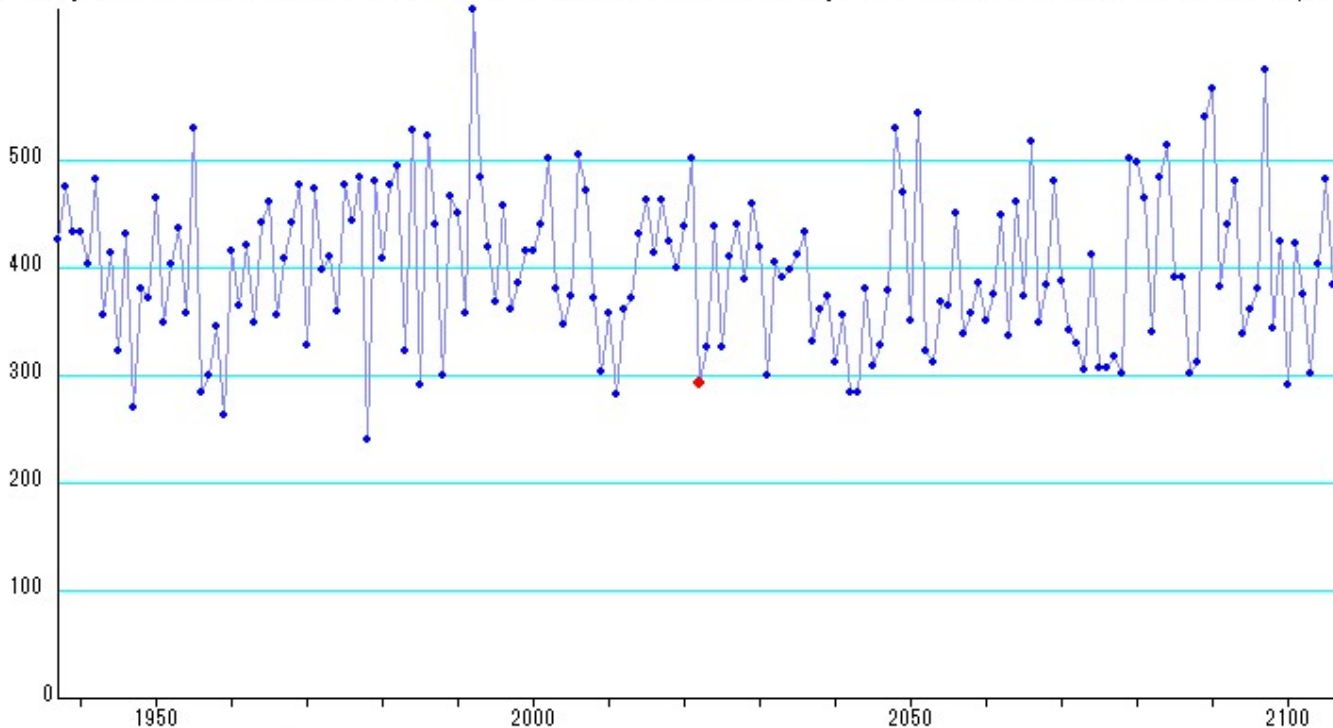


2025 May 20

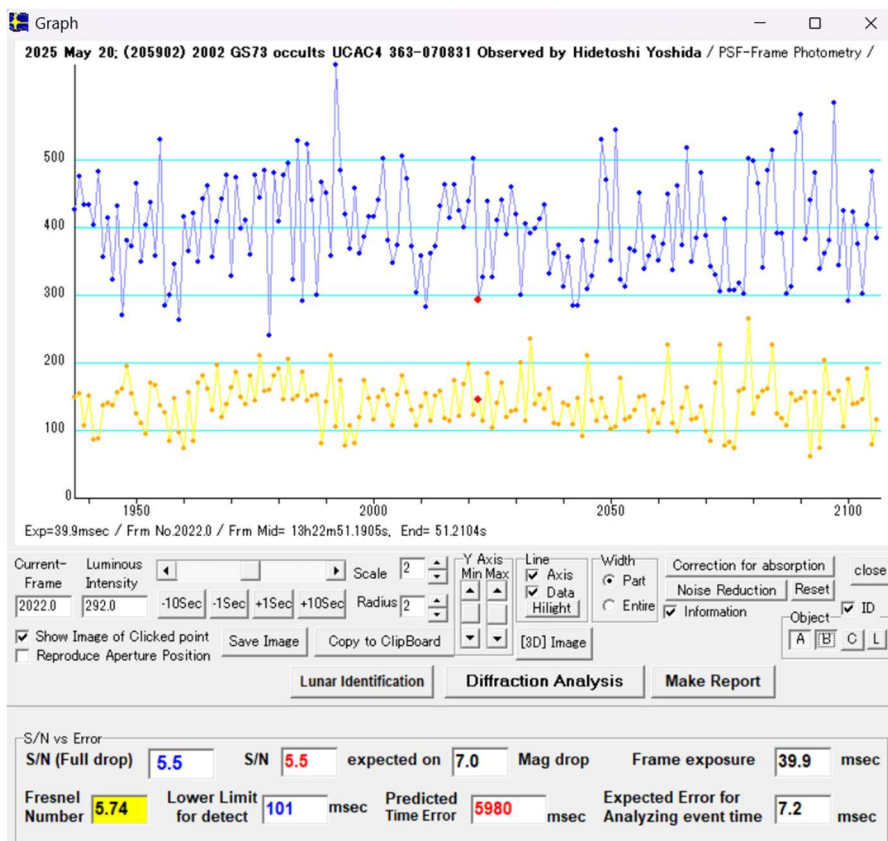
Main-belt Asteroid (205902) 2002 GS73 Occults UCAC4 363-070831

北海道札幌市 吉田秀敏

2025 May 20: (205902) 2002 GS73 occults UCAC4 363-070831 Observed by Hidetoshi Yoshida / PSF-Frame Photometry /

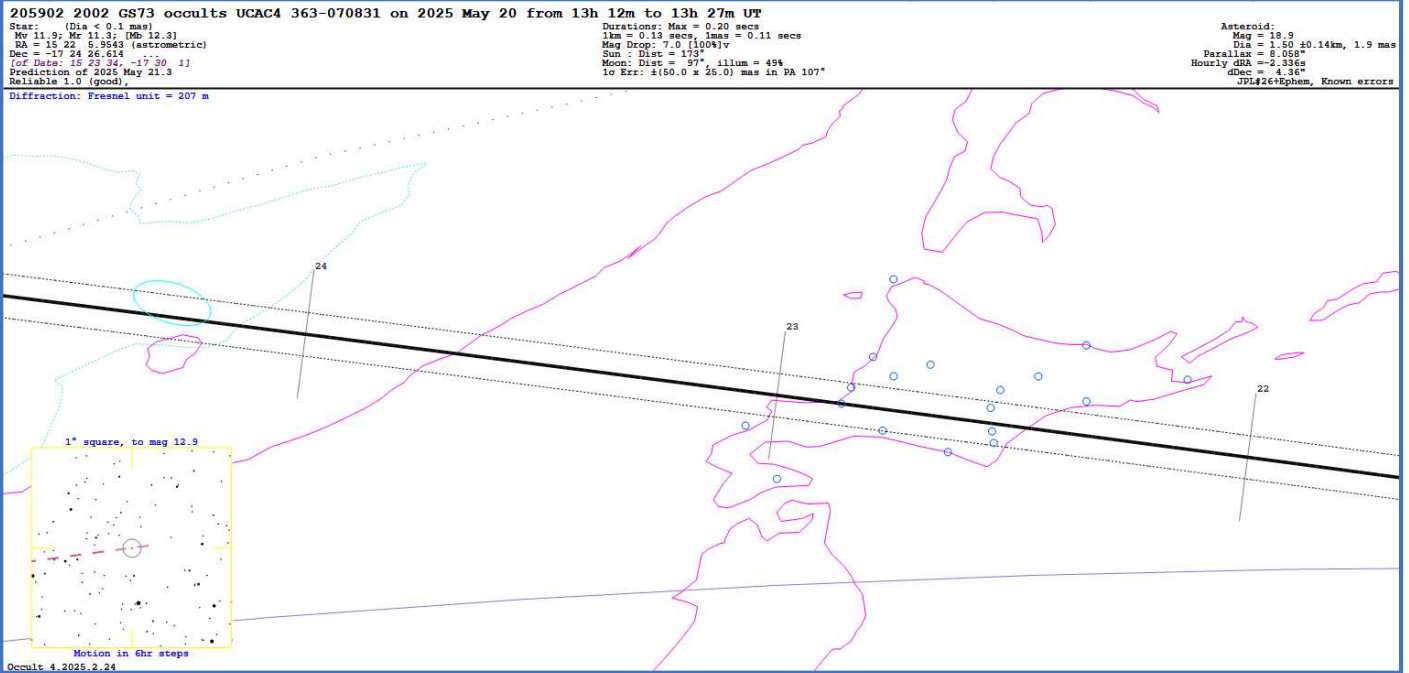


Exp=39.9msec / Frm No.2022.0 / Frm Mid= 13h22m51.1905s, End= 51.2104s



(予報) 減光 7.0 等 最長継続時間 0.19 秒

(観測結果) 減光なし (通過)



Light Measurement tool for Occultation Observation using Video Recorder [Limovie 1.0.1.8 Pneuma]

File Edit Option Tools Software Update

2025 05 20 13:24:10.654

01星と天体の話 LOW.4  
 素材  
 Cartes du Ciel  
 トリイ

using 1PPS LED

Recorded PC Time... Obtained UTC from LED Si

No.	HH	MM	SS	SS55SS55	HH	MM	SS	SS55	HH	J		
0	13	21	30	5321487	13	21	30	5362	13	21	30	536
1	13	21	30	5720494	13	21	30	5481	13	21	30	568
2	13	21	30	6119900	13	21	30	5880	13	21	30	607
3	13	21	30	6518507	13	21	30	6279	13	21	30	647
4	13	21	30	6917514	13	21	30	6678	13	21	30	667
5	13	21	30	7316521	13	21	30	7077	13	21	30	727
6	13	21	30	7715528	13	21	30	7476	13	21	30	747
7	13	21	30	8114535	13	21	30	7875	13	21	30	807
8	13	21	30	8513542	13	21	30	8274	13	21	30	827
9	13	21	30	8912549	13	21	30	8673	13	21	30	847
10	13	21	30	9311556	13	21	30	9072	13	21	30	867
11	13	21	30	9710563	13	21	30	9471	13	21	30	887

9. Apply to photometric analysis

Case A: Single point calibration  
 (1) Click "Apply to Analysis" button.  
 (2) Close this windows. Check analyzed time.

Case B: Multiple point calibration  
 If you've analyzed accurate time head of video now.  
 (1) Click "Add" button => memory analyzed time.  
 (2) Do Photometry for 1PPS LED pulse on the end of video stream.  
 (3) Open this window and analyze time.  
 (4) Click "Add" button => memory analyzed time.  
 (5) Click "Apply to Analysis" button.  
 (6) Close this windows. Check analyzed time.

Memory

1	00463	13	21	49	0017472
2	00864	13	22	05	0019290
3	01265	13	22	21	0023798
4	03295	13	23	42	0010070

0.0040273msec [Ofs=1.065103E [Edt]90

0.00247: Seconds from 1PPS signal on every 25 frames; 39.90x25=997.5

Time correction feature cannot analyze this framerate.  
 selected frame: No. 3671 Frame of PPS using: No. 3696

6. Spread area of Blue dots for fitting to lin

7. Fit to line, and obtain the calibrate Time from the brightness of LED's PPS

8. Check result  
 Time correction: UTC = -0.0040273 sec + mean recorded [stamped] time  
 result of regression analysis of 1PPS LED. Estimated Error is [0.005471312 seconds

Add List without LED Correction

Asteroid timing guide Operation Guide

SharpCap Timing Analysis

Frame time Date Threshold [Sharp] [h m s [Start] [Mid] [End] S1 S2  
 13 24 10 6298 10 6497

CSV-File Capture Open AVI Load CSV Copy CSV Exit

Radius: Star Image [30] Update Setting Items  
 Measurement / View Option Show Field Interval DShow Frame Rate: 25.001971  
 Field Measure 1  
 Field Order: Even first Current Object: Graph  
 Order: 17

SharpCap Captures#2025-05-20\Wcapture#22\_21\_30\_ Time stamp indicates FrameEnd

Operation guide

3D-Graph of...

Processing Size: 5 3 OFF  
 Noise Reduction: Moving Average Median  
 Aperture: Show Hide  
 Copy to Clipboard Close

2025/05/21

SharpCap [44.658] - 2025-05-20 13:24:10.654

File Camera Capture View Tools Sequencer Scripting Help

Live View Start Capture Check Capture Stop Capture Pause Support Live Stack Support Raw

2025 05 20 13:24:10.654

TIME.IS Get Time is Ad-free!

あなたの時計はちょうどぴったりです。  
 Time.is との差は -0.004 秒 (±0.246 秒) でした。  
 札幌市, 日本での現在時刻

**22:14:55**

2025年, 5月20日, 火曜日, 第...  
 World Metrology Day / World B...

Time.is 22:14

https://time.is/jp/

Time.is 22:14:55

2025-05-20 22:14:53.000 2025-05-20 22:14:53.0  
 2025-05-20 22:14:53.000 2025-05-20 22:14:53.0  
 2025-05-20 22:14:53.000 2025-05-20 22:14:53.0

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

[Date ] 2025. 5. 20 [Approx hour] 13.3  
[Star ] UCAC4 363-070831 VMag=11.91 RMag=11.33  
[Asteroid ] (205902)2002 GS73 18.90 mag.  
[Observer ] 1: Hidetoshi Yoshida 2:  
[Location ] Sapporo, Hokkaido, JP  
[Longitude ] 141o21'21.0" E  
[Latitude ] 43o06'25.5" N  
[Altitude ] 15m  
[Datum ] WGS84  
[Predicted Time error] 5.980 sec [RUWE] 1.00  
[Recorded ] From 13h21m31s  
          To 13h24m11s  
[Mag. drop ] D: Measured: ; Predicted:  
          D: Measured: ; Predicted:  
[Telescope ] Aperture: 30cm Type: SCT F=2.9  
[Camera ] Analog or Digital video , Model= ASI290MM  
[Exposure ] Set: 39.9msec, Measure: 39.9msec  
[Setting ] Area: 800x600 ; Binning=2  
          Gain: 441 ; Brightness: 0 ; High Speed Mode: On  
[Time keep ] GPS ; Model: GT902MGG  
[Evidence ] GPS Time Log : Recorded ; Screen shot: Recorded  
[Condition ] Stability: Steady Transparency: Clear  
[Remarks ]