

# Proposal for observing time with IAC80 telescope

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– Team: 1/A –

August 12, 2008

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**Telescope:** IAC 80

**Night:** 14.08.08

**Topic:** Time series photometry of

1. NGC 7094 (V=13.75)

2. G 226-29 (V=12.24)

3. GD 244 (V=16.00)

**Amplitude / Period:**

1. 40 / -

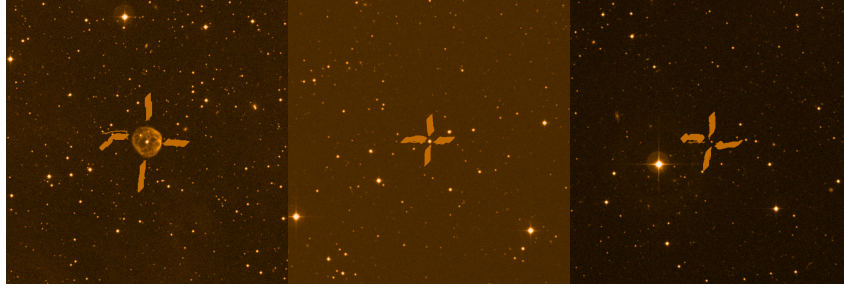
2. 0.6 / 109

3. 4 / 203 - 307

G226-29 DEC. 16 48 25.6414 R.A. +59 03 22.711

NGC7094 DEC. 21 36 52.976 R.A. +12 47 19.33

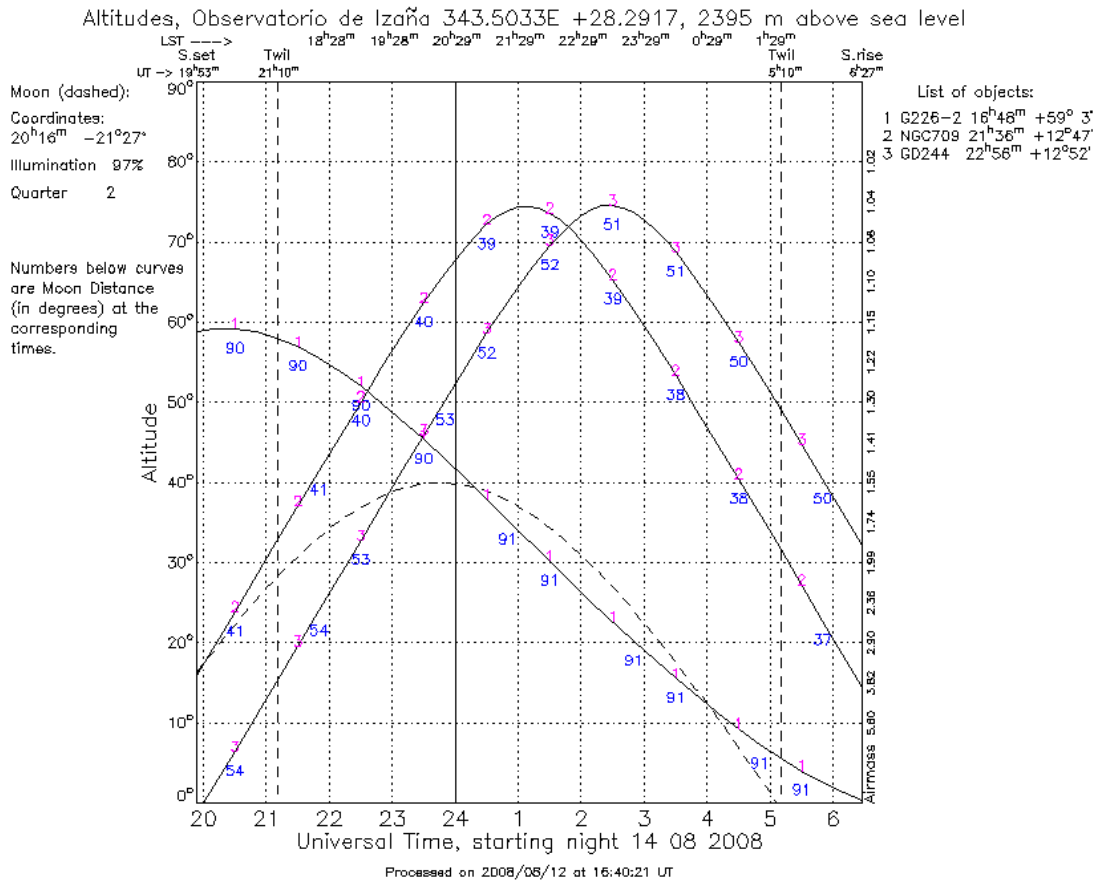
GD244 DEC. 22 56 46.172 R.A. +12 52 50.20



(a) NGC 7094

(b) G 226-29

(c) GD 244

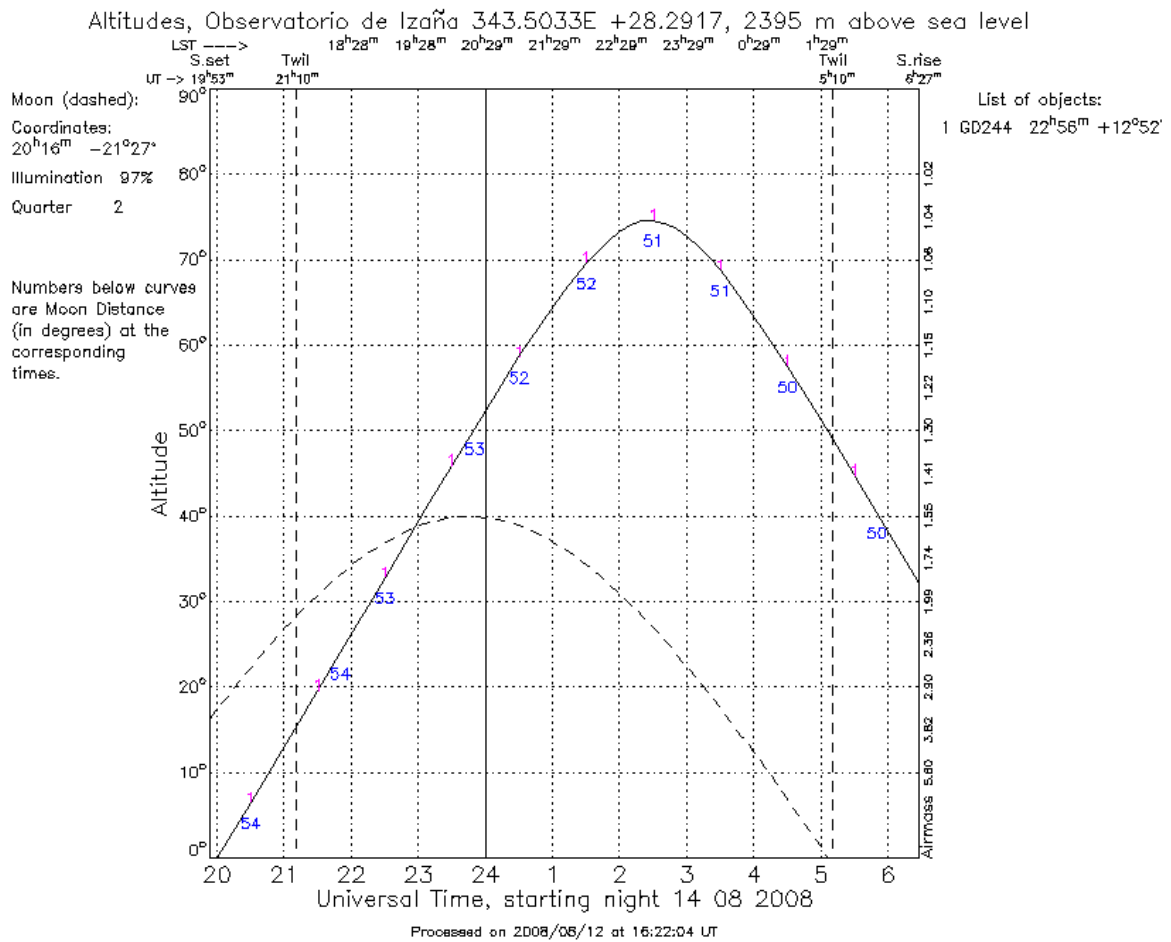


(d) Visibility plot

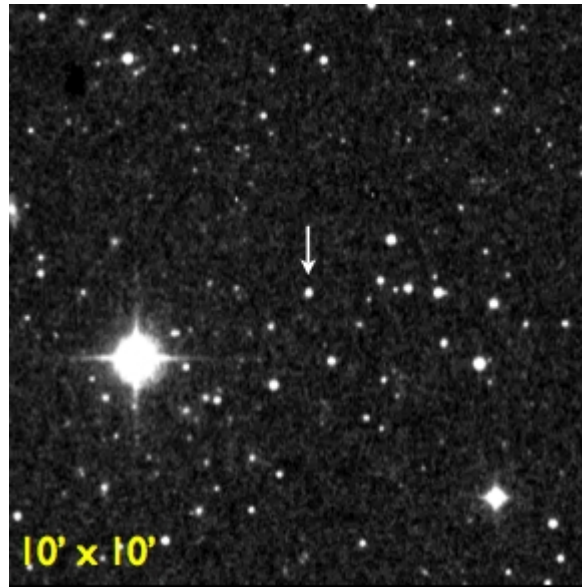
**Team:** 2/B  
**Telescope:** IAC80  
**Night:** 14 August: 02:00 - 04:15

**Proposed target:** Pulsating White Dwarf GD244  
 I = 15.6  
 Period: 203sec  
 Ampl: 0.4%

**Coordinates:** 22 56 46.172 +12 52 50.20



Finding chart: N up, E left

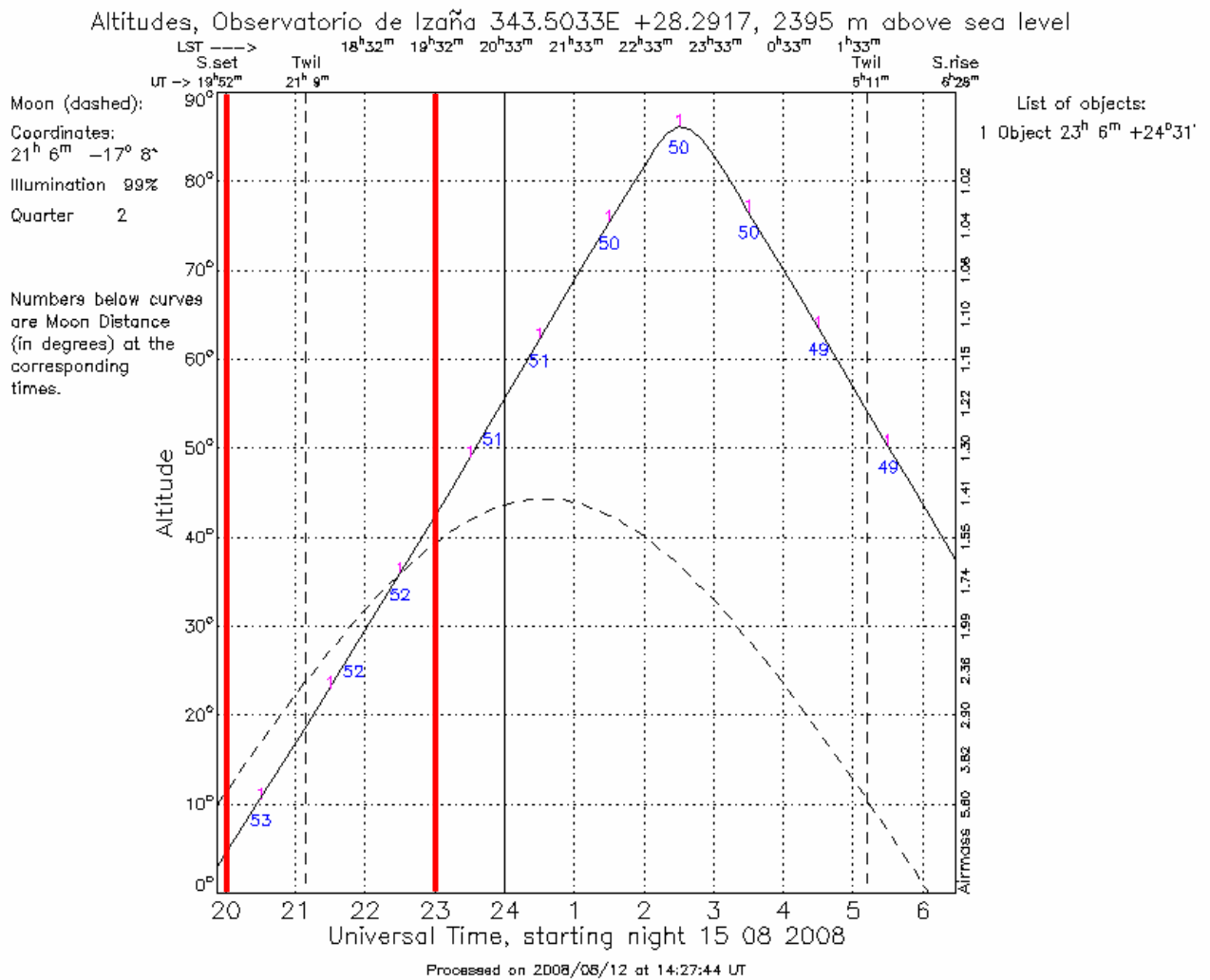


**Team:** 4 / D  
**Telescope:** IAC80  
**Night:** August 15, 2008 (23:00 – 2:00 EET)

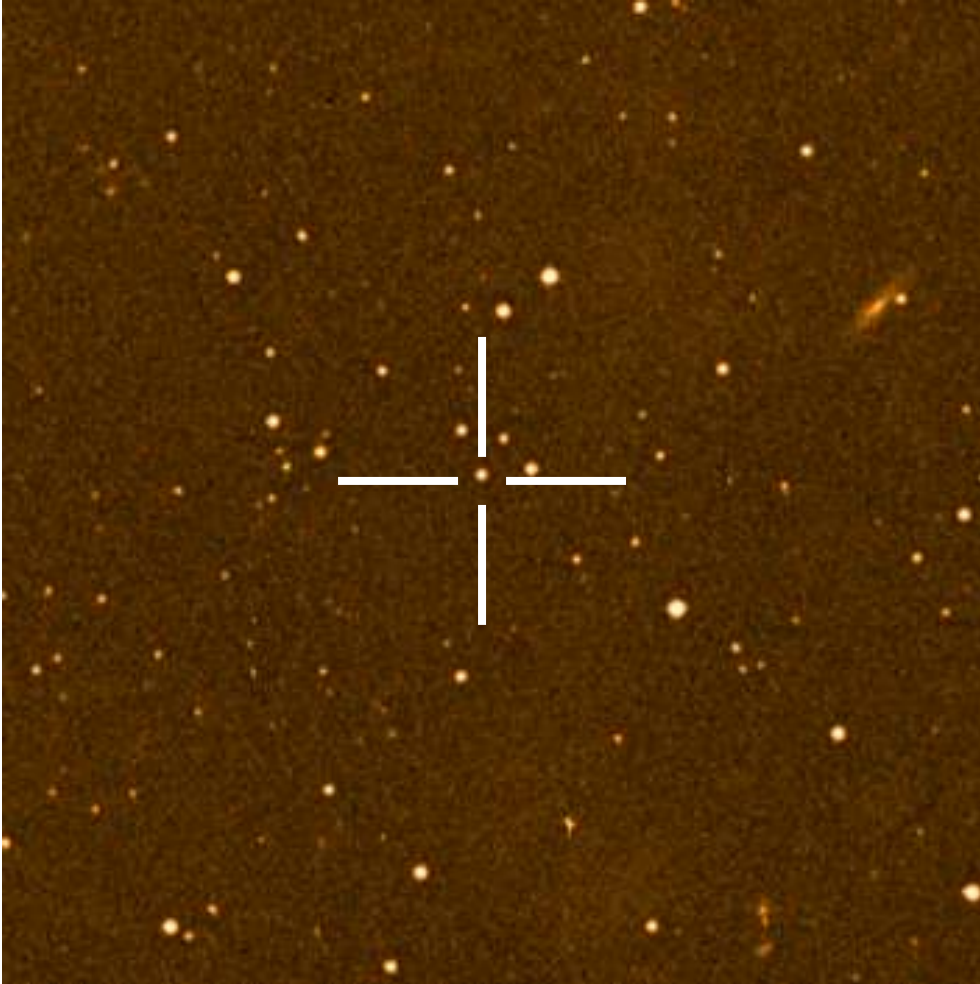
**Proposed targets:** Time series photometry of PG 2303+243  
 V = 15.5 mag      Period (s): 394, 483, 540, 611, 936  
 Amplitude: 200 mmag  
 In collaboration with observing group 3/C

**Coordinates:**  $\alpha$ : 23 06 17  $\delta$ : +24 32 00

**Visibility chart:**



Finding chart:



**Team:** 3 / C

**Telescope:** IAC80, Teide (Tenerife, Spain)

**Night:** 15 August 2008: 02:00 – 4:15

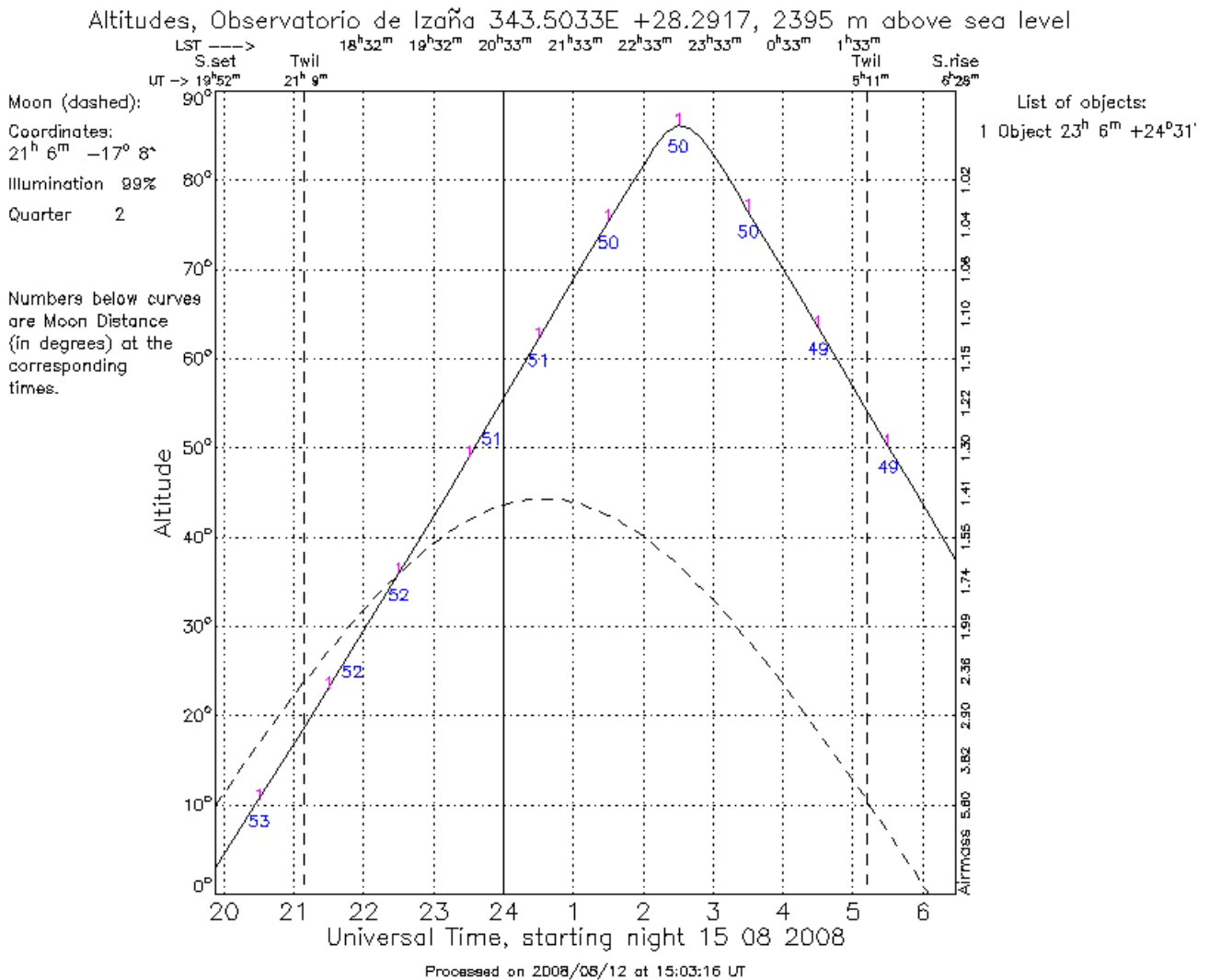
**Proposed target:** Time Series Photometry PG 2303+243

V = 15.50

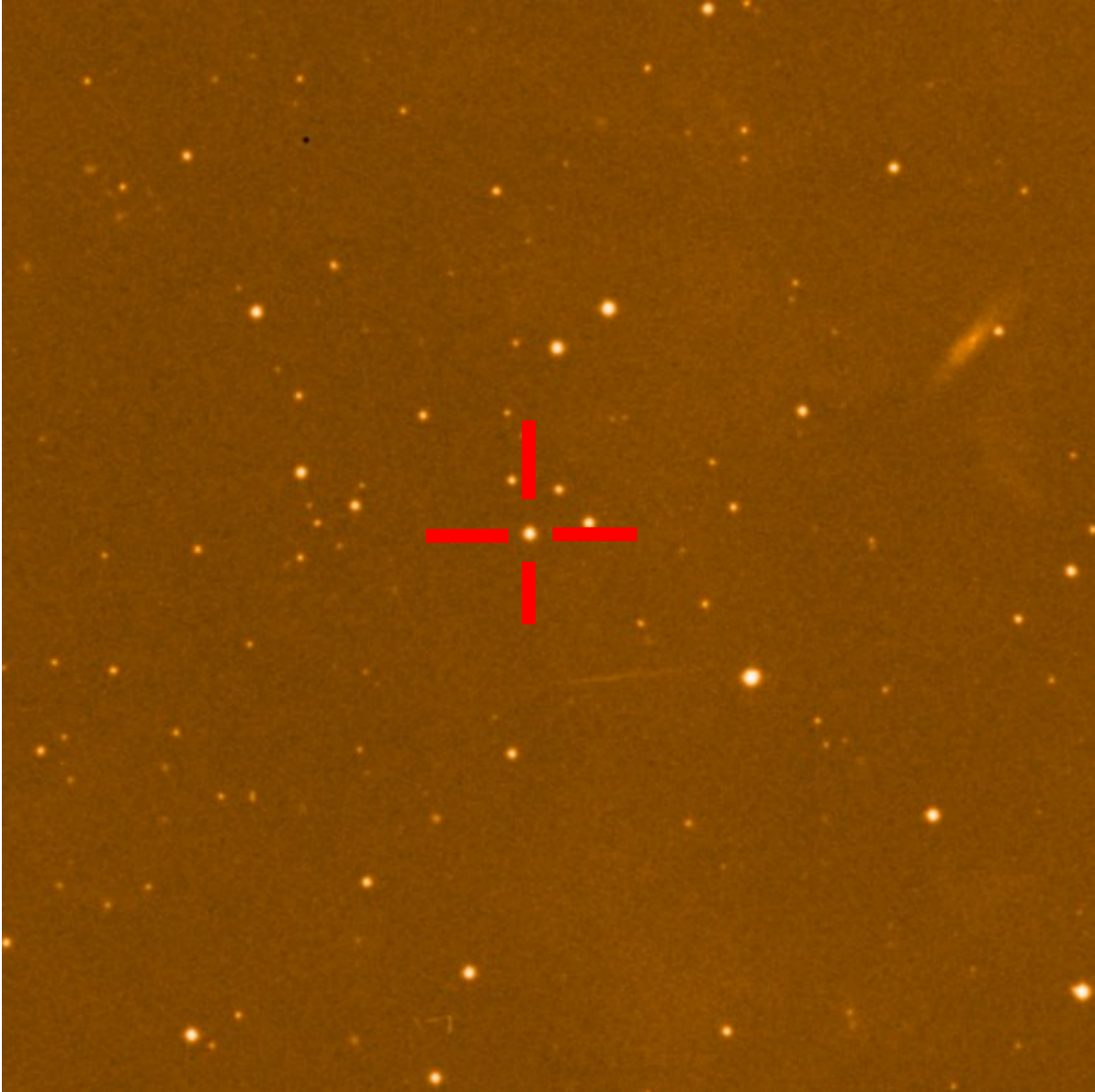
Period (days)/Amplitude (mmag)=0,0104/16; 0,0092/56; 0,0078/418; 0,0072/15; 0,0066/8

**Coordinates:**  $\alpha$ : 23 06 17  $\delta$ : +24 32 00

**NOTE:** We are collaborating with the team D (Teide), B and I (165cm) observing first shift the same night.



**Finding chart:**



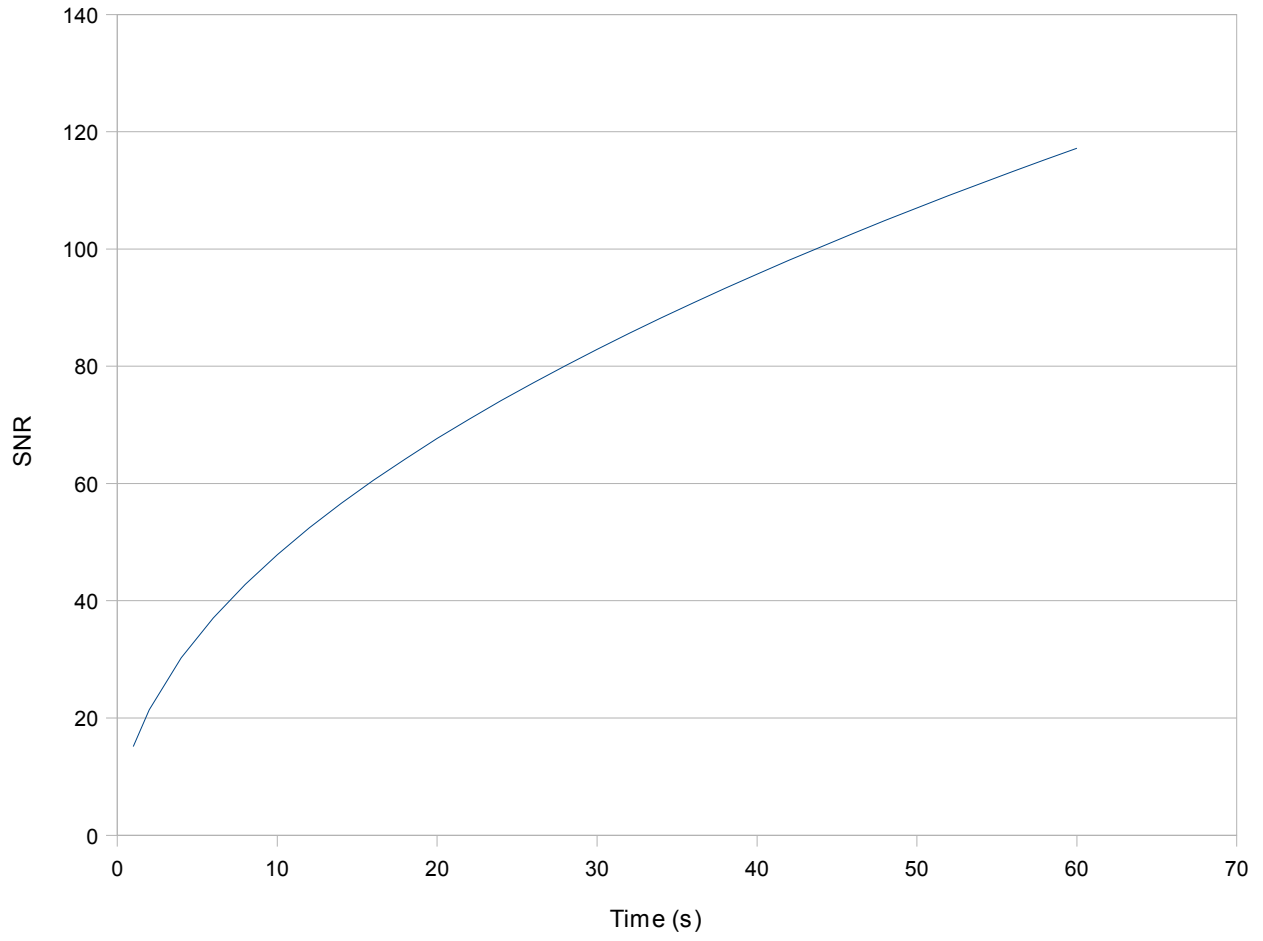
**Window size:** 10" x 10"

**Exposure time:** 20s.

**SNR = 67,67**

**$\sigma(n) = 7,85$  mmag**

SNR vs Time



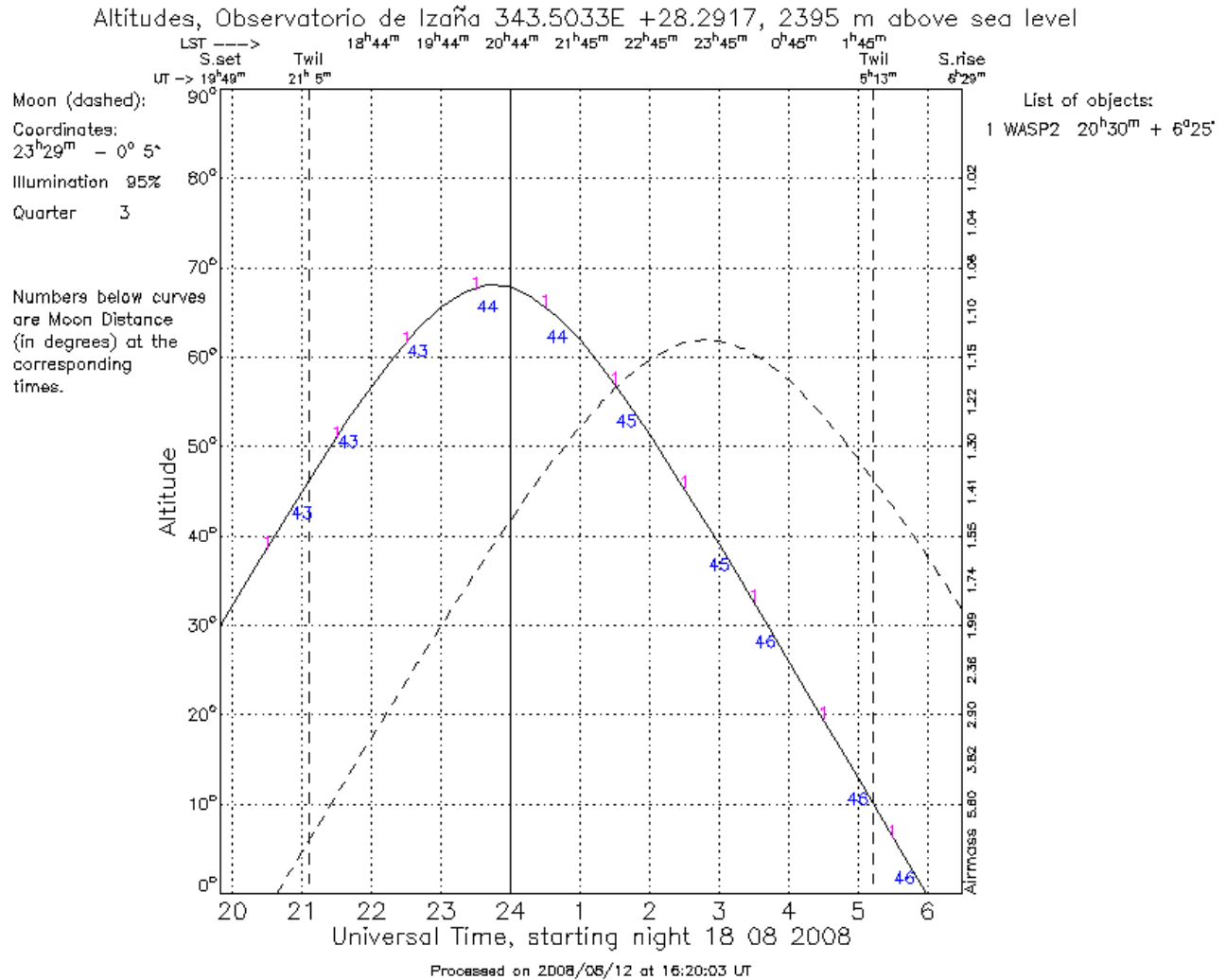
**Personal notes:**

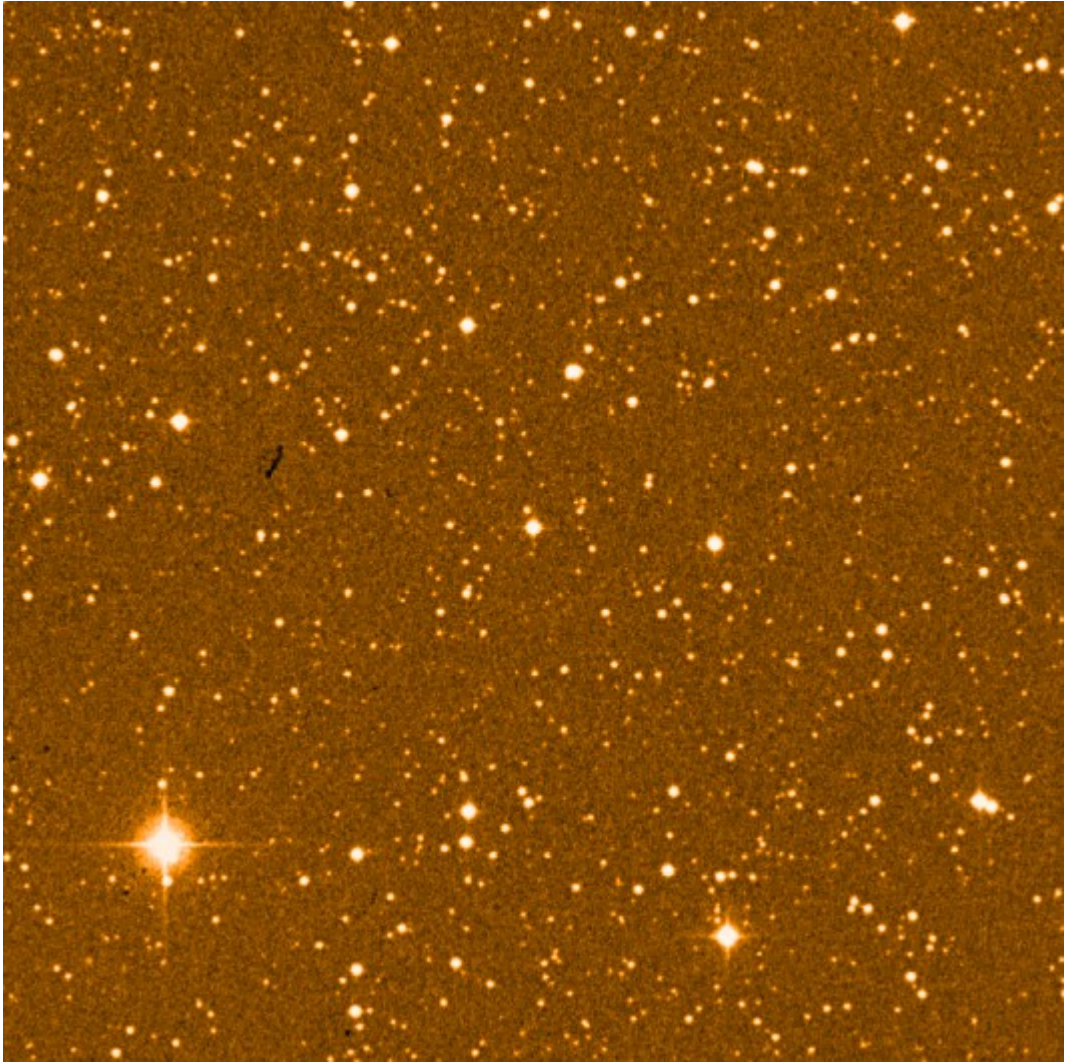
Effective bandwidth for B filter (A)      1000.00  
N = 180 readouts

**Team:** 6 / F  
**Telescope:** IAC80  
**Night:** 18 August 23:00-02:00

**Proposed target:** WASP-2 V: 12  $\sigma$ (A)~0.1 X transit depth  
(In collaboration with team (9 / I)  
Also, we would like to collaborate with a team doing photometry on white dwarfs.

**Coordinates:** WASP-2 20 30 54.130 +06 25 46.37





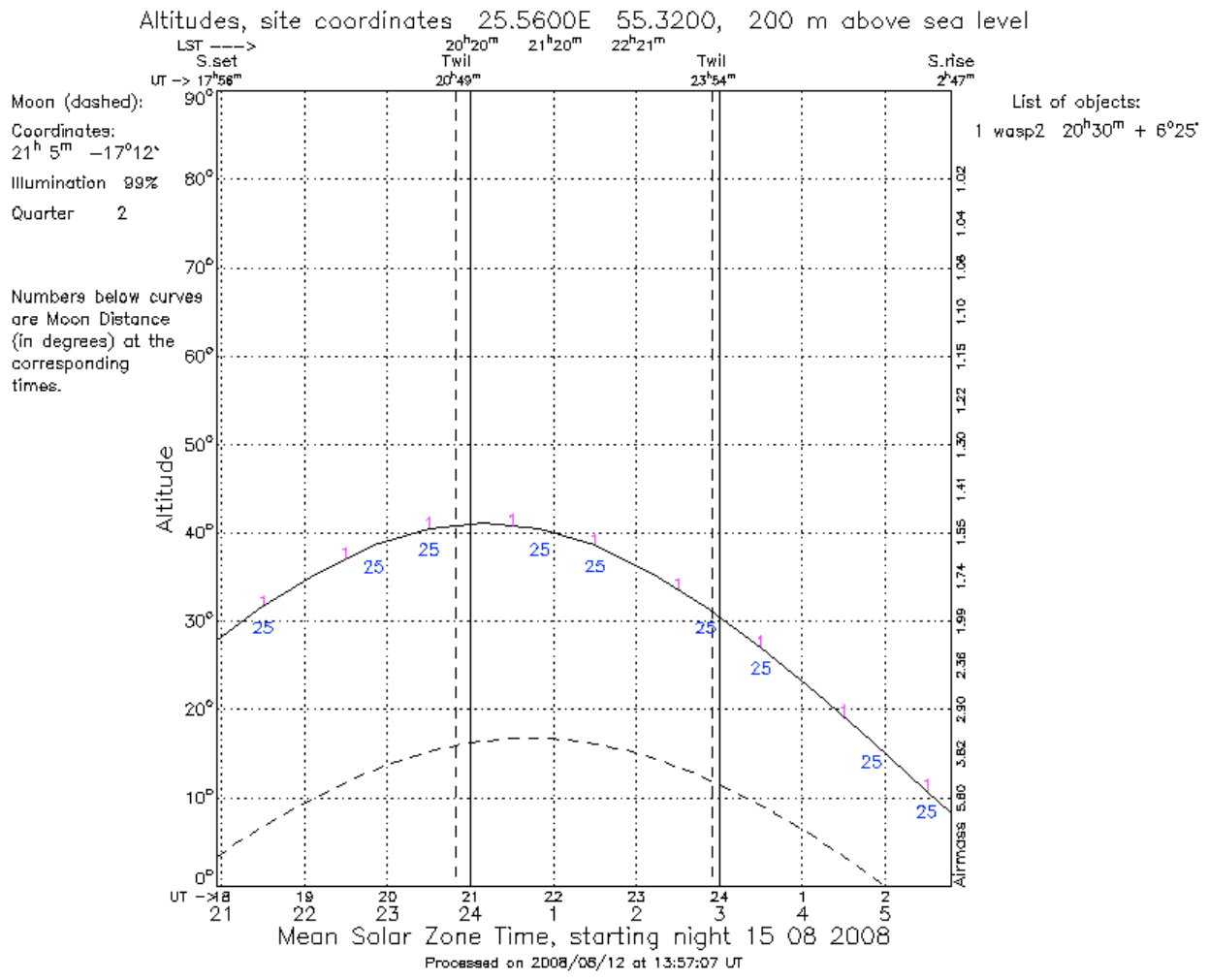
**Team:** 9/1

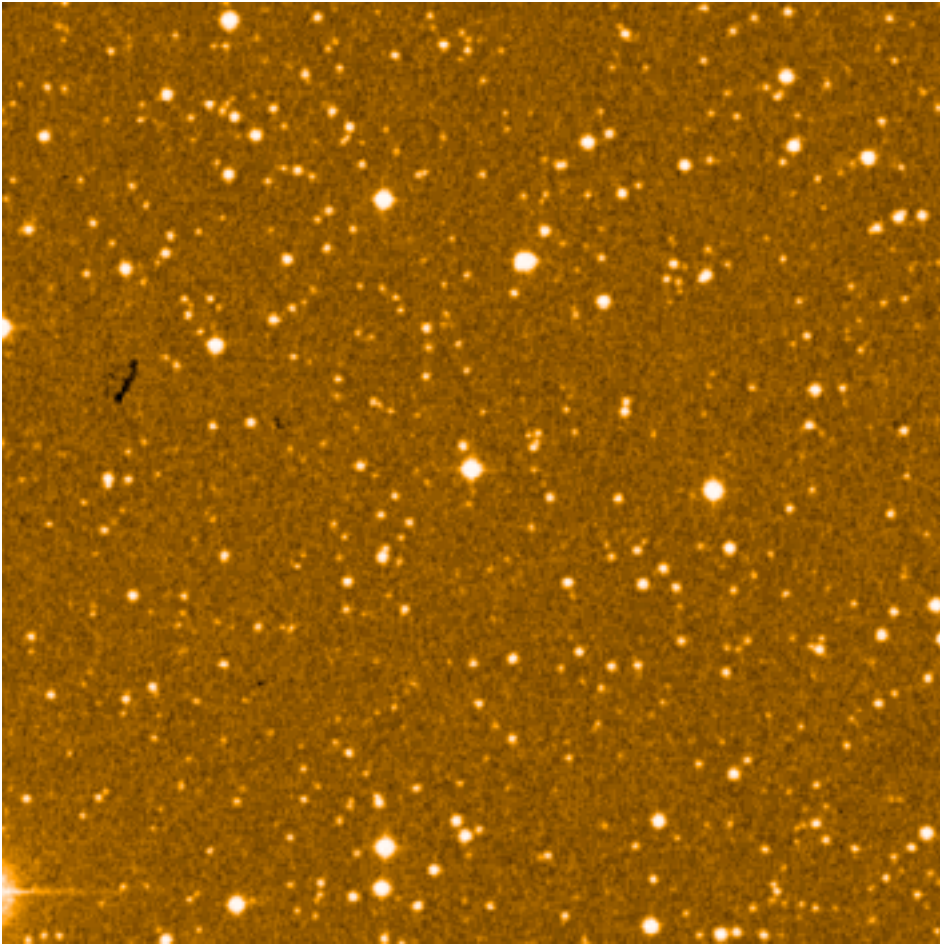
**Telescope:** IAC80

**Night:** 18 August: 02:00-04:15

**Proposed target:** Exoplanet transit. Wasp 2  
V=11.98  
Exposure time of ~20s with Johnson V filter is enough for a S/N~10.

**Coordinates:** 20 30 54.130 +06 25 46.37





10x10 arcmin

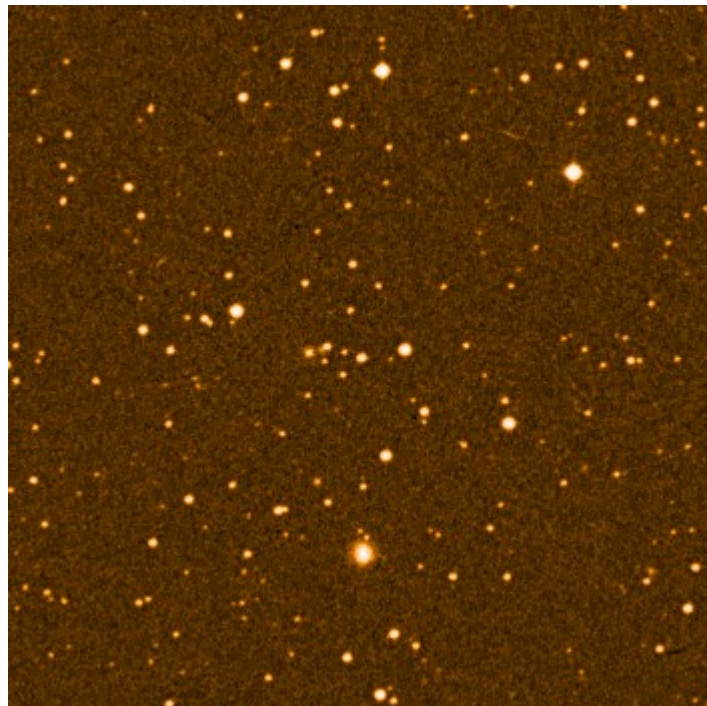
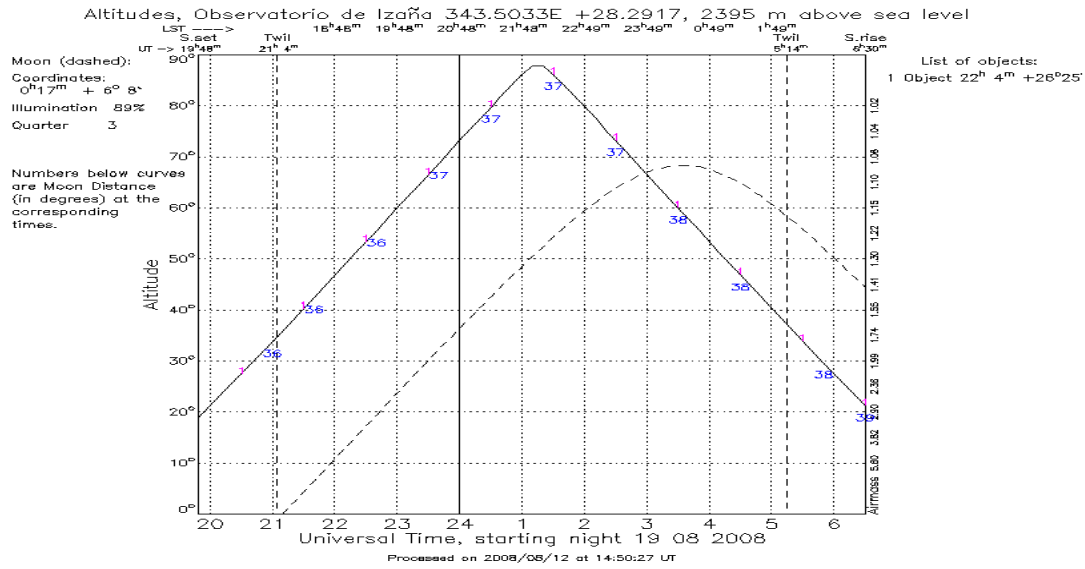
Team: 8/H

Telescope: Teide

Night: 19. august 23-02

Proposed target: HS 2201+2610

Coordinates: 22 04 12.2 +26 25 08

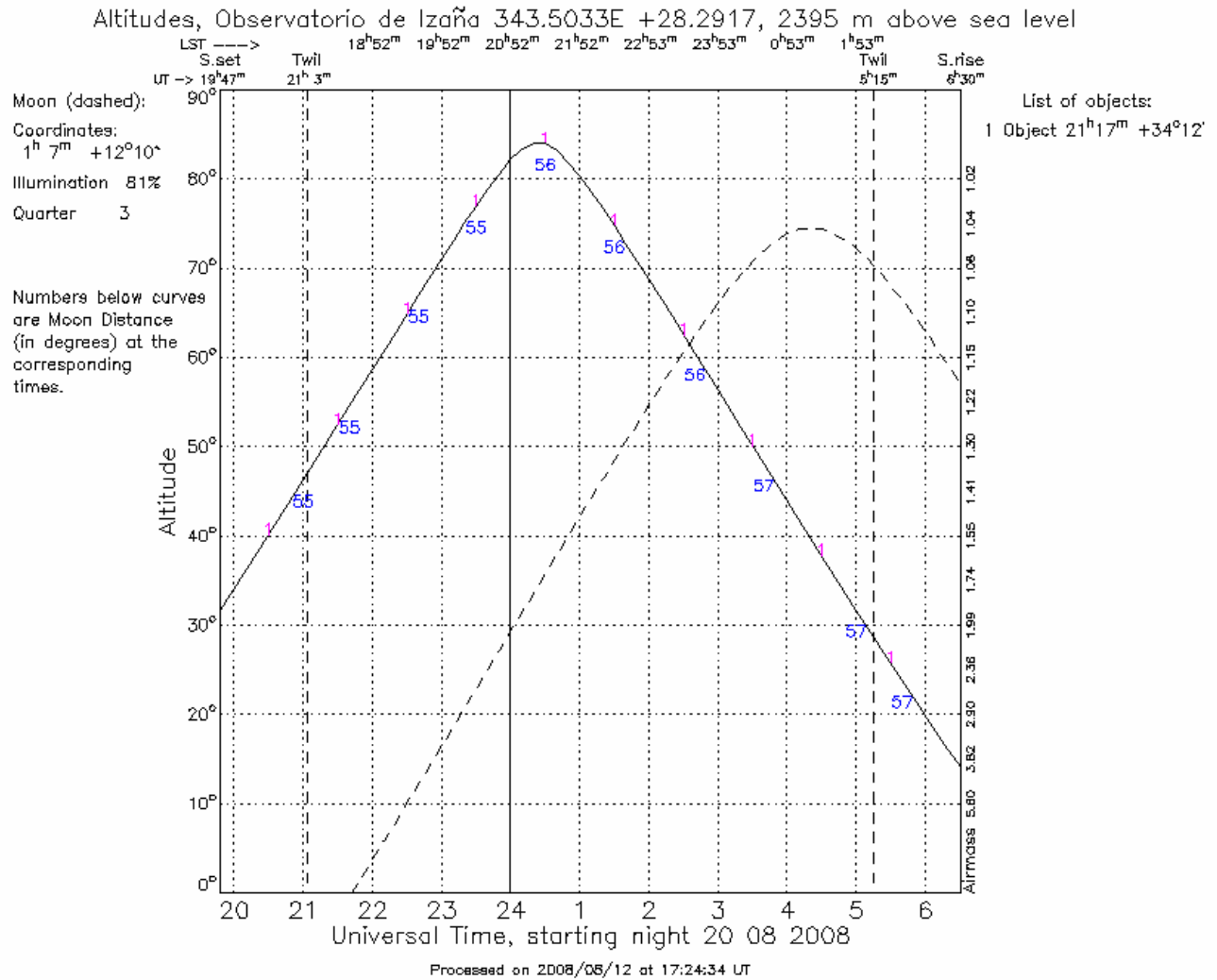


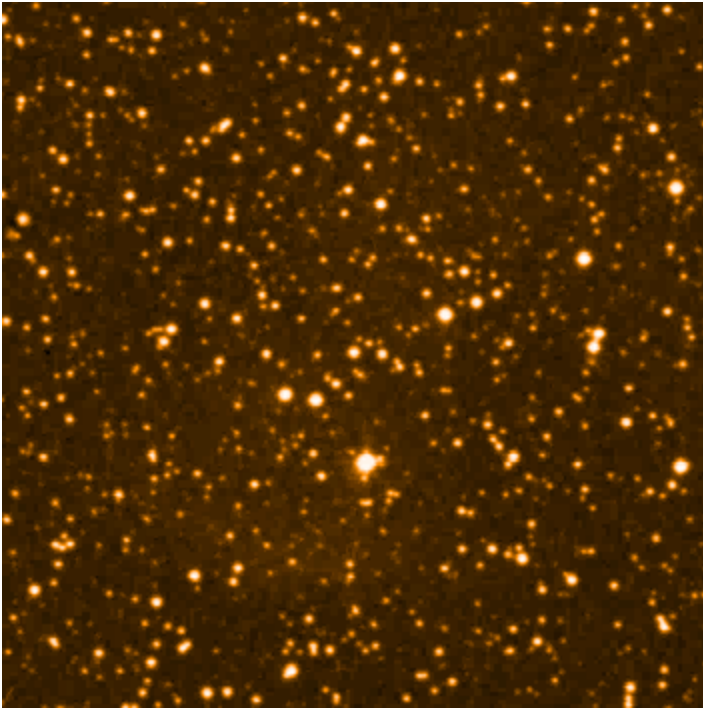
<b>Team</b>	G/7
<b>Telescope</b>	IAC80 Tenerife
<b>Night</b>	Night of 19 <sup>th</sup> August from 02:00 to 04:00 Moletai Local Time
<b>Proposed Target</b>	PG 2303 +243
<b>Reference</b>	Vauclair et al. 1987, A&A, 175, L13
<b>Coordinates of Object</b>	RA 23 06 16 Dec +24 32 00
<b>Period</b>	571-901 s
<b>Magnitude</b>	15.5
<b>Effective Temperature</b>	11480 K
	$\sigma(a) = 0.701$

### Comments

We intend to observe the V band variability of PG 2303 +243 , which belongs to the ZZ Ceti (DOV) class of stars, in order to study its period.

**Team:** 10/J  
**Telescope:** Teide  
**Night:** 20 August, 23:00 – 02:00 (Local Time)  
**Proposed Target:** Time Series Photometry of RXJ 2117+3412  
 V = 13.16 mag Period ~800 s Amplitude = 50 mmag  
**Coordinates:**  $\alpha$ : 21 17 07  $\delta$ : +34 12.4





$$\sigma(n) = 1.6 \text{ mmag}$$

$$\sigma(a) = 0.17 \text{ mmag}$$

$$\sigma(f) = 1.7 * 10^{-7} \text{ Hz} = 0.17 \text{ } \mu\text{Hz}$$

$$\Delta T \text{ (Nyquist)} = 160\text{s}$$

$$\text{integration time} = 60 \text{ s}$$

$$T = 3 \text{ hours (duration of observations)}$$

$$N = 180 \text{ (number of measurement points)}$$

Team: 5/E

Telescope: Teide

Night: 20<sup>th</sup> Aug, 02-4:15

Proposed program: Time series of PG2303+243

V=15.50