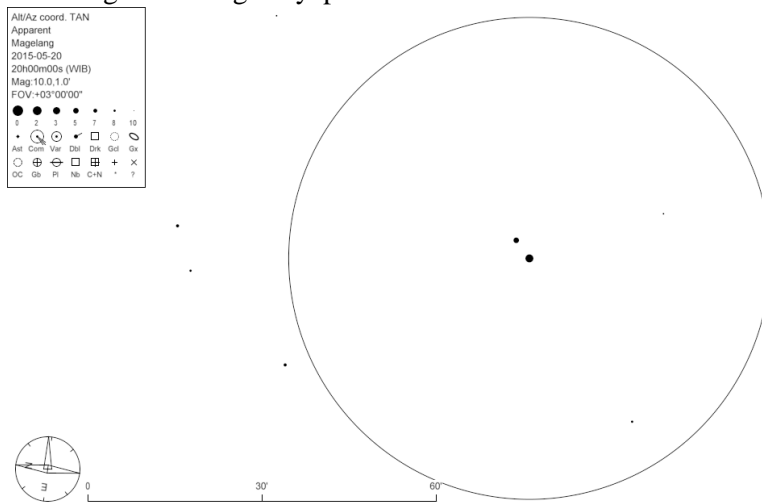


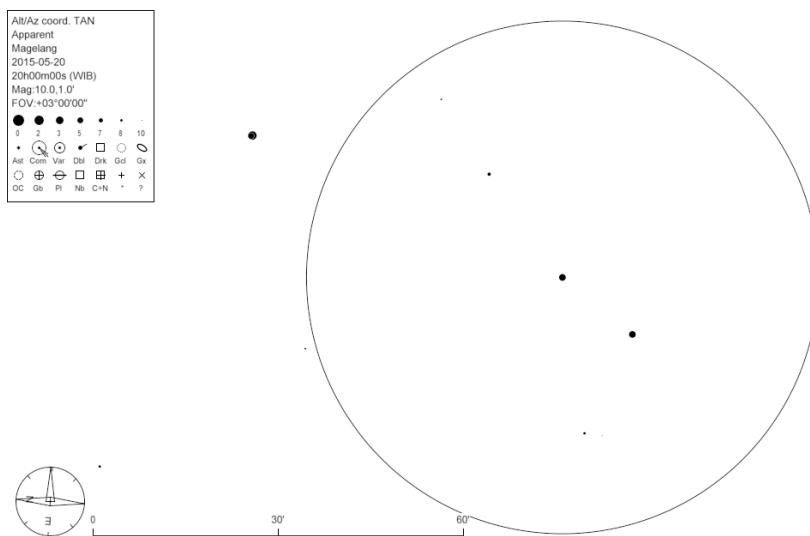
## Ronde Observasi

### 1. Soal cerah

#### a. Zubelgenubi dengan eyepiece 25 mm :



#### ω1 dan ω2 Scorpii dengan eyepiece 25 mm :



b. Zubelgenubi: RA:  $14^{\text{h}}50^{\text{m}}52^{\text{s}}$  ; Dec:  $-16^{\circ}2'31.5''$

ω1 Sco: RA:  $16^{\text{h}}06^{\text{m}}48^{\text{s}}$ ; Dec:  $-20^{\circ}40'09.3''$

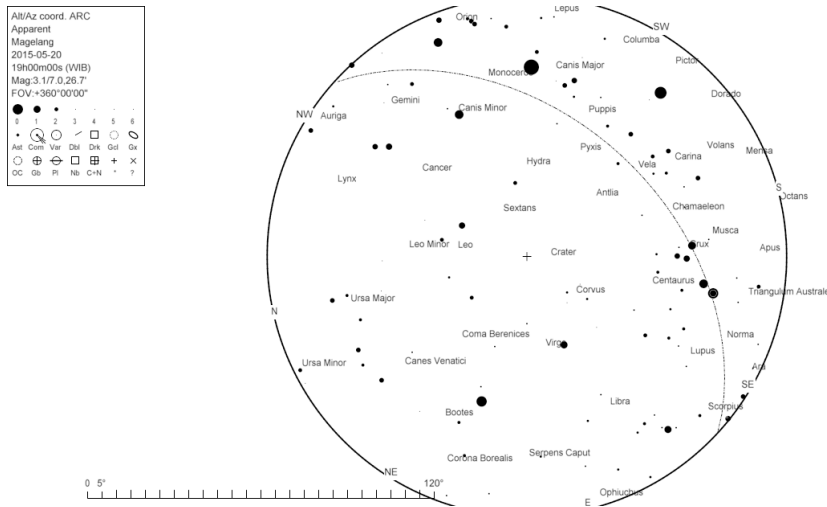
ω2 Sco: RA:  $16^{\text{h}}07^{\text{m}}24.4^{\text{s}}$ ; Dec:  $-20^{\circ}52'08.1''$

c. Zubelgenubi:  $3'52''$

ω Sco:  $14'40''$



- c. Kutub Utara Galaktik: RA = 12<sup>h</sup>51<sup>m</sup>26.00<sup>s</sup>, Dec = +27° 7' 42.0"  
 Kutub Selatan Galaktik: RA = 0<sup>h</sup>51<sup>m</sup>26.00<sup>s</sup>, Dec = -27° 7' 42.0"  
 d. Bidang galaktik (ditunjukkan dengan garis putus-putus):



3. Soal Cerah  
 (terlampir)

4. Soal Uraian

- a. Medan pandang:

$$M = \frac{f_{ob}}{f_{ok}} = \frac{80 \text{ mm} \times 11.25}{25 \text{ mm}} = 36$$

$$FoV = \frac{\text{Medan Pandang Semu Okuler}}{M} = \frac{45}{36} = 1,25 \text{ derajat}$$

Limiting magnitude:

$$6 + 5 \log \frac{D_{teleskop}}{D_{pupil \text{ mata}}} = 6 + 5 \log \frac{80 \text{ mm}}{7 \text{ mm}} = 11,289$$

Light gathering power:

$$\frac{D_{teleskop}^2}{D_{pupil \text{ mata}}^2} = \frac{(80 \text{ mm})^2}{(7 \text{ mm})^2} = 130,61$$

- b. Medan pandang:

$$M = \frac{f_{ob}}{f_{ok}} = \frac{90 \text{ mm} \times 10}{25 \text{ mm}} = 36$$

$$FoV = \frac{\text{Medan Pandang Semu Okuler}}{M} = \frac{45}{36} = 1,25 \text{ derajat}$$

Limiting magnitude:

$$6 + 5 \log \frac{D_{teleskop}}{D_{pupil \text{ mata}}} = 6 + 5 \log \frac{90 \text{ mm}}{7 \text{ mm}} = 11,546$$

Light gathering power:

$$\frac{D_{teleskop}^2}{D_{pupil \text{ mata}}^2} = \frac{(90 \text{ mm})^2}{(7 \text{ mm})^2} = 165,31$$