

ARA

Observation been done on the 19 July 2020 and I have been using the metric eyepiece to measure the double stars but first determined the size of each division of the linear scale by taking a number of star transits. I timed twelve transits which covered 50 divisions of the scale. The average time for one transit was 38.55 seconds which translates to 5.8" per scale division and it was this figure which I used in the following observations. It is difficult to be 100% correct with the very close pairs, seeing, unstable atmosphere and turbulence.

Tele: 16-inch S/C – FL 4064mm (f10) - 290x - 462x - Date: Date: 8 April 2003 - visibility: 5.

Revisit: 19 July 2020

Sky limit 4.7, 8 out of 10 visibility

Telescope: 16-inch Schmidt-Cassegrain - Focal Length 4064mm (f10)

Eyepiece: 2" - Ultra Wide 40mm – 102X – Eyepiece: 2" – 52.8'

Use of a Metric Eyepiece – 1 segment on 16-inch - 40mm = 5".8

Eyepiece: 2" - Ultra Wide 14mm – 218X – 23.1' - Eyepiece: 2" - Ultra Wide 8.8mm – 346X –14.6'

Revisit: 19 July 2020

h 4896 – ARA

RA: 16h56.2

DEC: -46°51'

Magnitude of stars: 7.8 and 9 - Separation: 4" - Position Angle: 25° - 33°

Telescope: 16" Schmidt-Cassegrain – 290x - 462x – metric 5.8" per division

The primary still in a white colour with an off white to yellow companion.

The separation I estimate is closer to a PA of 33°. I also measure with crosshairs against background stars, last measurement was in 1933. Brightness of stars seems the same.

Revisit: 19 July 2020

h 4901 – ARA

RA: 17h01.1

DEC: -58°51'

Magnitude of stars: 7.8 and 7.9 - Separation: 2.8" - Position Angle: 130° - 135°?

Telescope: 16" Schmidt-Cassegrain – 290x - 462x – metric 5.8" per division

Separation the same, the PA is slightly higher measure with crosshair and use the metric linear scale. Colour, magnitude of stars the same.

Revisit: 19 July 2020

CorO 206 – ARA

RA: 17h02.9

DEC: -50°10'

Magnitude of stars: 7.4 and 8.4 - Separation: 8" - *9+ estimate* - Position Angle: 234° - *236°*

Telescope: 16" Schmidt-Cassegrain – 290x - 462x – metric 5.8" per division

The PA perhaps a tad increase estimate 236°, last measure in 1933. Primary and companion still pale yellow/dusty/white. The pair is slightly wider as the indicated 8" separation, with a close call, measure with the metric eyepiece short to two metric (5.8") divisions which estimate to 9+."

Revisit: 19 July 2020

Dun 213 – ARA

RA: 17h10.3

DEC: -46°44'

Magnitude of stars: 6.9 and 8.4 - Separation: 8" - *9+ "* - Position Angle: 167 - *164°?*

Telescope: 16" Schmidt-Cassegrain – 290x - 462x – metric 5.8 per division

The colour of the stars is still the same, dusty white primary and off-yellow companion. Compare to CorO 206 the separation is wider (one and a ¾ division) gave me more than 9+", and the PA (last measure in 1934), now measure with crosshairs against the background stars and linear scale, I estimate it slightly less than the indicated 167°.

Revisit: 19 July 2020

h 4920 – ARA

RA: 17h13.0

DEC: -58°36'

Magnitude of stars: 7.1 and 8.8... *-? ...* - Separation: 3" - Position Angle: 325 - *315°*

Telescope: 16" Schmidt-Cassegrain – 290x - 462x – metric 5.8 per division

The companion in a very dusty dark yellow colour was difficult to spot, however, I estimate it fainter than 8.8, but perhaps the glare of the primary plays a role. Last measure in 1943. The PA however without a doubt less than 325°, closer to 315° as measure with the linear scale and crosshair to background stars.

Revisit: 19 July 2020

h 4931 – ARA

RA: 17h20.6 - DEC: -59°26'

Magnitude of stars: 7.8 and 7.9 - Separation: 1.1" ... *-? ...* - Position Angle: 256°

Telescope: 16" Schmidt-Cassegrain – 290x - 462x – metric 5.8 per division

Could hardly spot the companion which could be fainter closer to magnitude 9 and seems also closer than the indicated separation of 1.1". The pair was showing an oval impression. The PA position seems correct. Both displays dusty white to dusty yellow in colour. Last measure in 1942.

Revisit: 19 July 2020

Pol 4 – ARA

RA: 17h41.5

DEC: -53°28'

Magnitude of stars: 7.9 and 9.9 - Separation: 10.7 - *8" -* - Position Angle: 296°

Telescope: 16" Schmidt-Cassegrain – 290x - 462x – metric 5.8 per division

Primary in a clear white, and yellow companion, lovely contrast. The PA seems correct I try to measure against very faint stars. Using the metric eyepiece, the separation between the pair shows (one and a 1.4 division) which make the separation closer to 8" than the indicated 10.7. Last measure in 1933.

Revisit: 19 July 2020

h 4970 – ARA

RA: 17h42.2

DEC: -48°39'

Magnitude of stars: 8 and 8.8 - Separation: 7.9" – Position Angle: 69° - 72°

C 10.5 – Separation: 18.2" - Position Angle: 233°

Telescope: 16" Schmidt-Cassegrain – 290x - 462x – metric 5.8 per division

Date: 19 July 2020 - Site: Pietersburg SA

Two lovely yellow coloured stars estimate magnitude correct; companion could be slightly darker yellow in colour. The PA seems to increase as been measure with crosshairs and metric linear scale, perhaps more in line to 72°. I pick up an extremely faint star (estimate 14 magnitude) around 15" from the pair more or less in the same PA. The C companion same. Last measure in 1933.