

AUGUST 2007 – TEST DOUBLES IN SCORPIUS

Here is the sixth list of doubles to observe in the AAQ resolution survey. This month we have a group of mostly bright pairs, including a couple of the most famous.

Don't forget to use high magnifications (200x or more) for the close separations.

See the February AAQ newsletter for an article on the survey or download the instructions from

http://www.aaq.org.au/PDF_Documents/DoubleStars/Survey_intro.pdf.

Collect a report form at monthly meetings, or download at

http://www.aaq.org.au/PDF_Documents/DoubleStars/Report%20form%20V3.pdf

You can e-mail Tim Napier–Munn at: tgn-m@bigpond.net.au.

Don't forget to use high magnifications (200x or more) for the close separations, and assess and record the seeing using the method given in the instructions.

DON'T FORGET TO SEND IN YOUR OBSERVATIONS !

BU 36 / 2 Scorpii (RA. 15 54.0 Dec. -25 21) mags. 4.7 & 7.0, sep. 2.1, pa. 269° (1991). Moderately difficult but many scopes should get it.

Xi Scorpii, STF 1998 (RA. 16 04.4 Dec. -11 22) mags 4.9 & 5.2, sep. 0.9, pa. 352° (2007) A good test for sub-arcsecond resolution. It's easier than it seems, but needs high magnification. There are two pairs in the same wide angle field (a lovely view) but it's the brightest star you want; it has a dimmer star an easy 7.6" away.

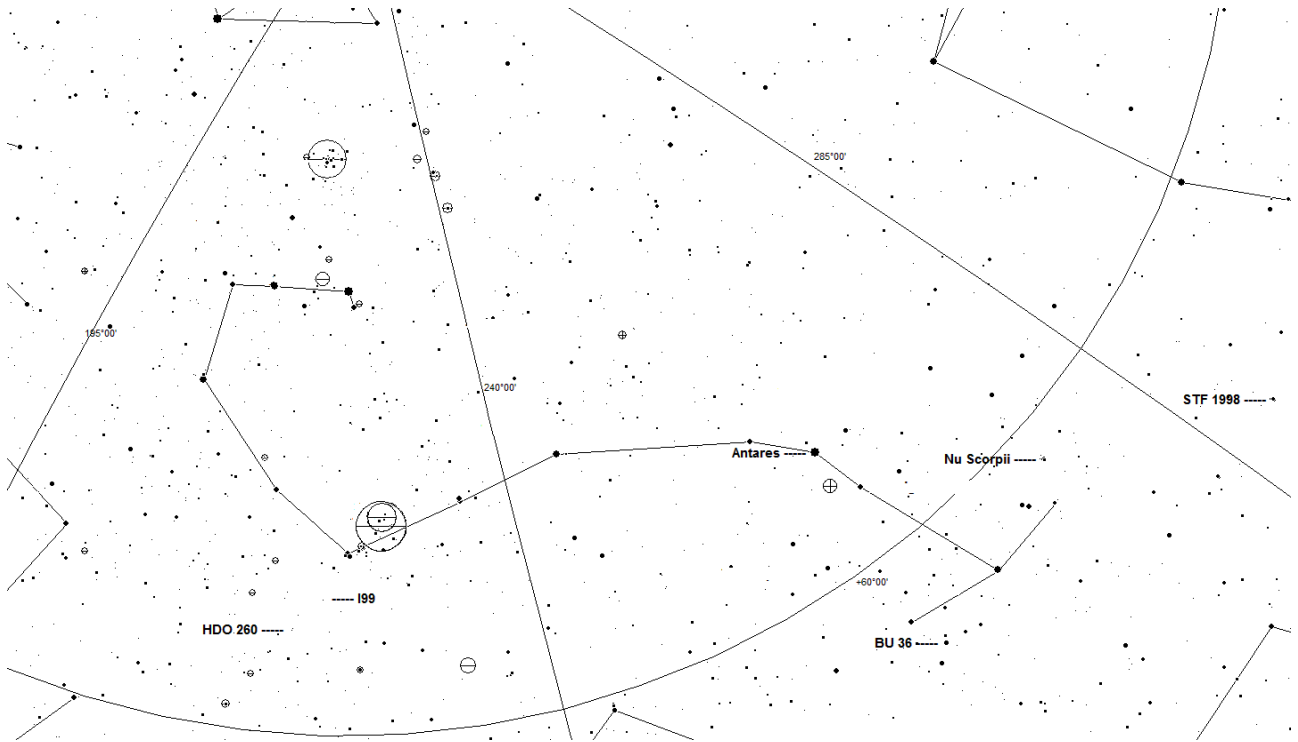
Nu Scorpii (RA. 16 12.0 Dec. -19 28) mags. 4.3 & 5.3, sep. 1.3" pa. 2° (2003) The famous double double. The dimmer of the two pairs should be fairly easy at 2.4" separation. The one we want is the brighter and closer pair to the south.

Alpha Scorpii, Antares (RA. 16 29.5 Dec. -26 25) mags 1.0(v) & 5.4, sep. 2.5", pa. 274° (1997) One of the most famous of all. The problem is that the secondary tends to get drowned out by the great red supergiant. Persevere with this one. Seeing is important.

I 99 (RA. 16 49.5 Dec. -43 57) mags. 8.0 & 8.7, sep. 1.0", pa. 65° (1991) A tough one.

HDO 260 (RA. 16 47.5 Dec. -45 28) mags. 7.7 & 8.8, sep. 0.5", pa 356° (1991) There are two similar magnitude stars in the same high magnification field; the target is the one NE. This one is only for those of a strong disposition! (aka big scopes). Dawes' Limit says that a 9" should just resolve it (not allowing for the magnitude difference). I have resolved it in my 14" SCT in very good seeing at 861x. As usual, "No Split" reports are important.

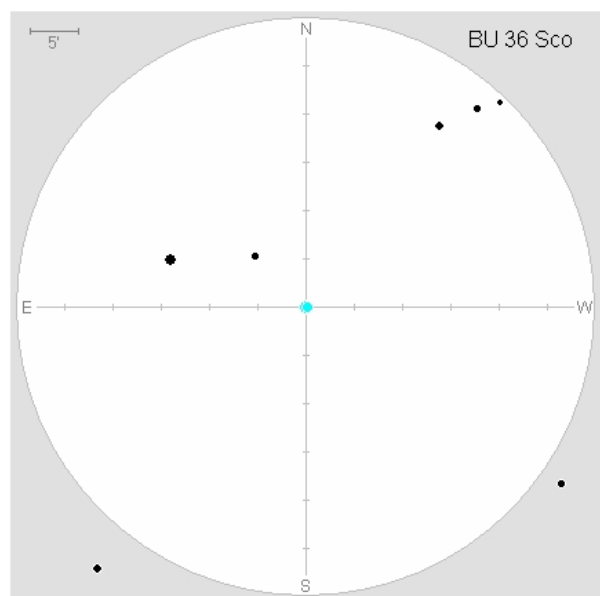
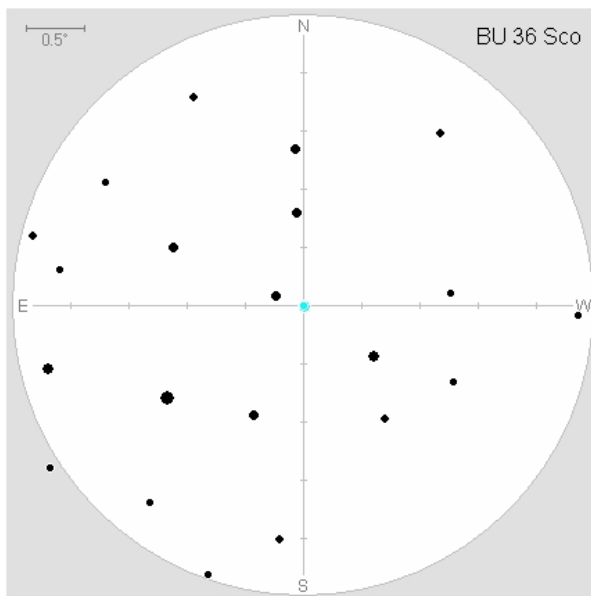
Finder Chart for the Test Doubles in Scorpius



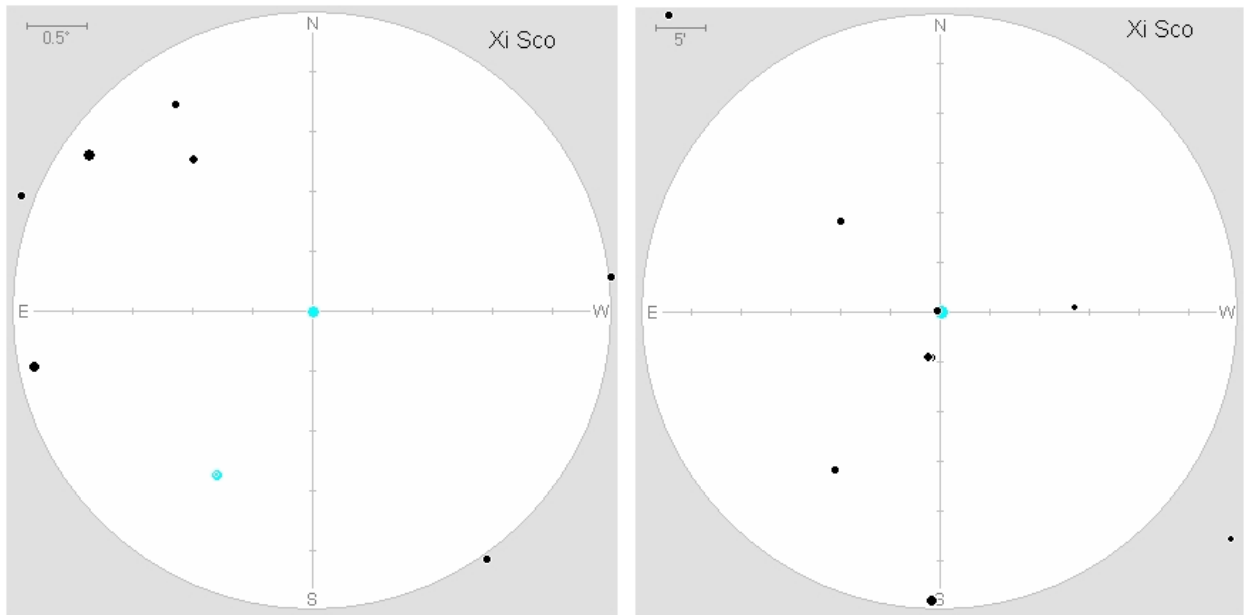
Eyepiece Finder Charts for AAQ August Doubles, in Scorpius (Antares is not given as it is easy to find)

Note: The left hand chart has a 5° (finder) field of view, with stars shown to approx. magnitude 7. The right hand chart has a 1° (eyepiece) field of view, with stars shown to approx. magnitude 10. The target star is on the cross hairs at the centre of the image. North is up and East to the left, to conform to the view through a finder, refractor or a simple Newtonian without a star diagonal; turn the chart to orient north and south to conform to your view through the finder or 'scope. If you are using an SCT with a star diagonal, the E-W directions will be reversed.

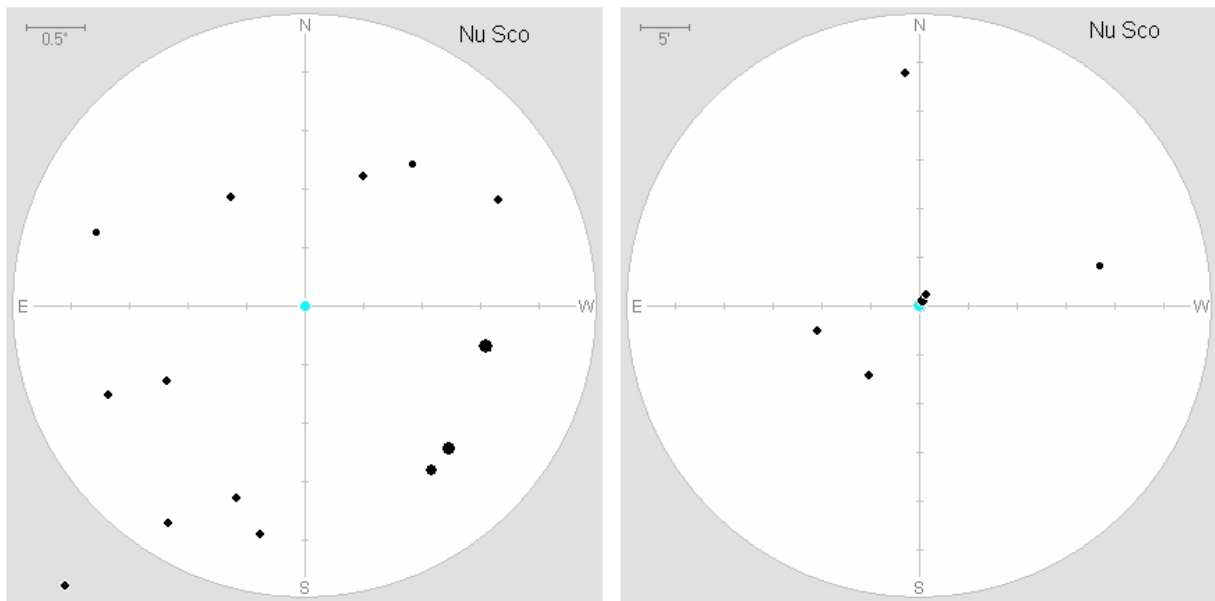
BU 36 / 2 Scorpii (RA. 15 54.0 Dec. -25 21) mags. 4.7 & 7.0, sep. 2.1, pa. 269° (1991)



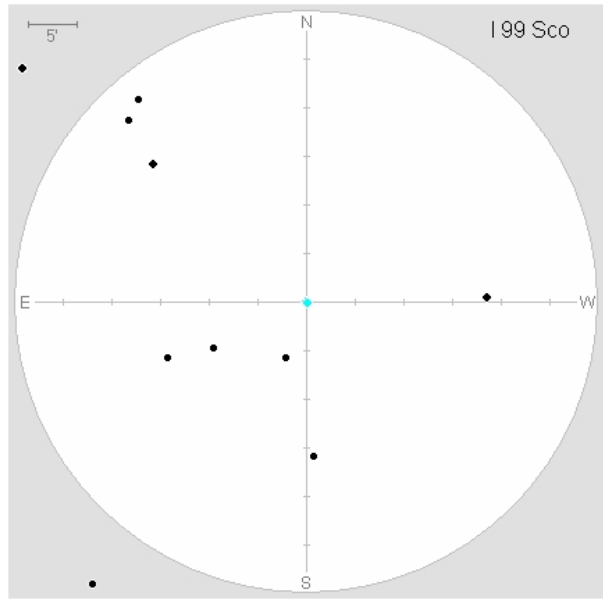
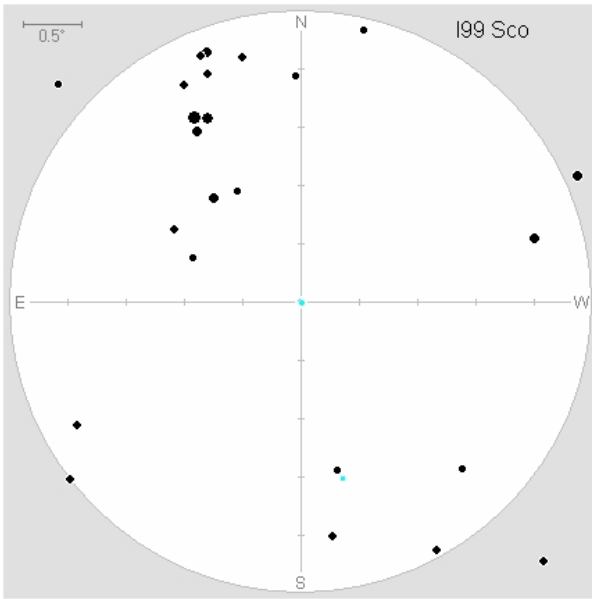
Xi Scorpii, STF 1998 (RA. 16 04.4 Dec. -11 22) mags 4.9 & 5.2, sep. 0.9, pa. 352° (2007)



Nu Scorpii (RA. 16 12.0 Dec. -19 28) mags. 4.3 & 5.3, sep. 1.3" pa. 2° (2003)



I 99 (RA. 16 49.5 Dec. -43 57) mags. 8.0 & 8.7, sep. 1.0", pa. 65° (1991)



HDO 260 (RA. 16 47.5 Dec. -45 28) mags. 7.7 & 8.8, sep. 0.5", pa 356° (1991)

