Cygnus (Cyg)

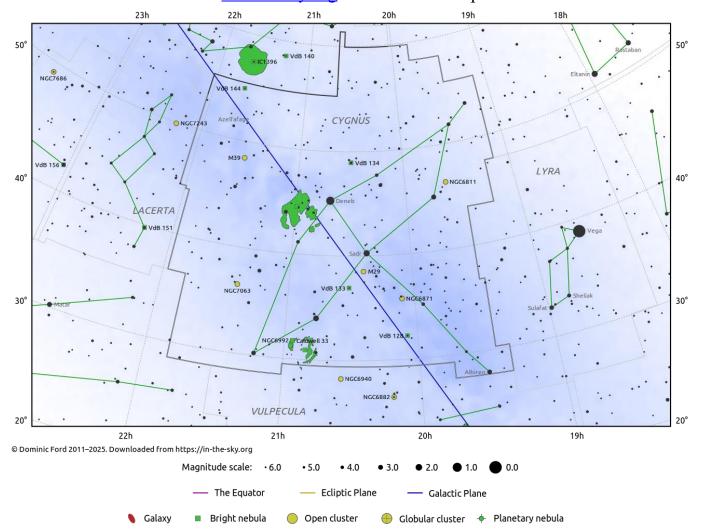
Evening Visibility: June - August

Online Information: **Cygnus**

More Online Information: Albireo, Al Fawaris, NGC-6826, NGC-7000, The Fairy Ring, 31 Cyg, CR-

419, M-29, Messier 39, NGC-6811, NGC-6871, NGC-6883

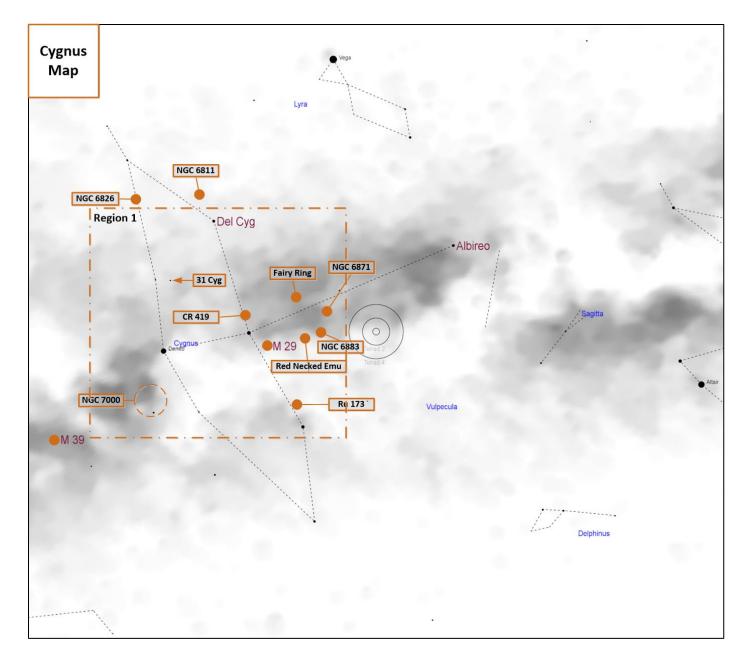
In-The-Sky.org Constellation Map



Cygnus the swan is one of the three constellations that make up the summer triangle. The milky way runs right through this constellation so it has many interesting objects.

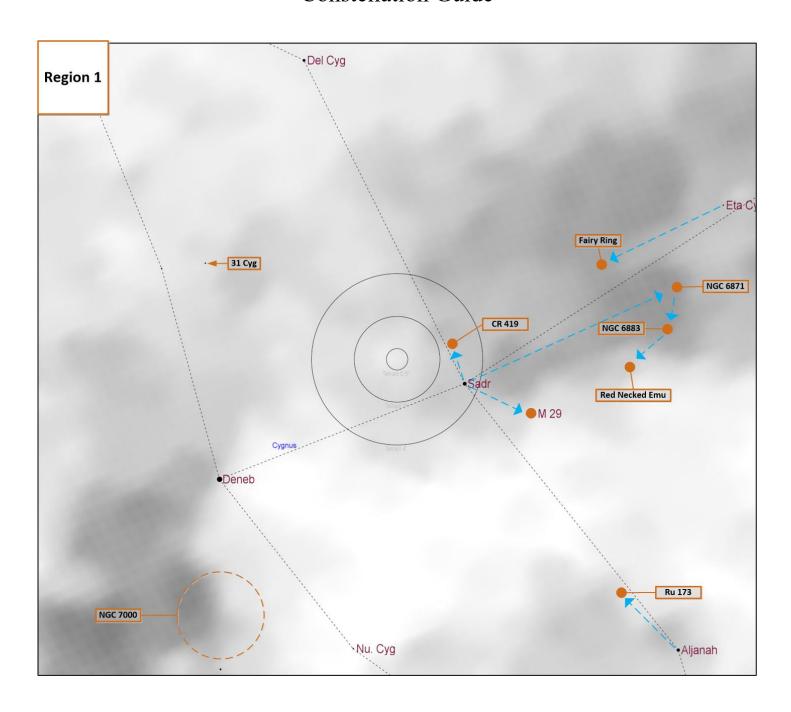
Constellation Highlights

- **Albireo** (DS) Perhaps the most celebrated double star in the northern sky. Gold and Yellow components.
- Fairy Ring (AS) Semi-circle of double stars in a 20' area.
- Messier 29 (OC) The cooling tower, a nice open cluster.
- 31 Cyg (MS-3) A nice triple star system.

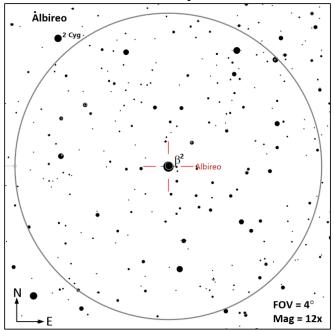


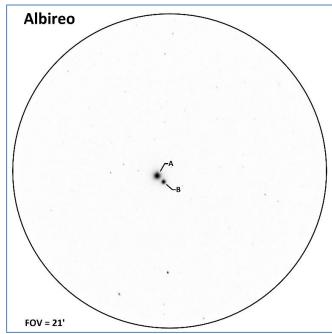
Objects Summary

Object (Type)	Ref	Aliases	Stats
Albireo (DS)	1, 2	SAO-087301, HIP-95947, Beta Cyg, 6 Cyg, HR-74170, HD=183912, STFA-43, β Cyg	AB M = 3.2, 4.7 Sep = 34.6" PA = 54° One of the best double stars in the northern sky
Delta Cyg (MS-3)	<u>1</u> , <u>2</u>	SAO-048796, HIP-97165, Al Fawaris, 18 Cyg, HR-7528, HD-7528, δ Cyg	AB M = 2.9, 6.3 Sep=2.7" PA=213° AC M = 2.9, 12.0 Sep=62.5" PA=67° A tight double (2.7") with a third dim companion
NGC-6826 (PN)	<u>1</u>	Blinking Planetary,	M = 8.8 Size = 2.1' SB = 20.4
NGC-7000 (EN)	<u>1</u>	North American Nebula, Gulf of Mexico	M= 4 Size = 120' x 100'
Fairy Ring (AS)	1, 2	Ring of double stars	Stars = 12 Size = 20' SAO-069335, HIP-98773 Grouping of six moderately wide doubles arranged in a ring shape
31 Cyg (MS-3)	<u>1</u> , <u>2</u>	SAO-049337, HIP 99675, Omicron1 Cyg, Omicron2 Cyg, V695, HR 7735, HD 192577, ADS 13554	AC M= 3.9, 7.0 Sep=108" PA=173° AD M= 3.9, 4.8 Sep=337" PA=322° Nice Optical Tripple system
CR-419 (OC)		Collinder 419, Lund940, OCL177	M = 9.0 Size = 7' SB = 21.9
M-29 (OC)	1	Cooling Tower, NGC-6913, Cr-422, OCI-168	M = 7.1 Size = 7.0' SB = 21.9
M-39 (OC)	1	NGC-7092, Pyramid Cluster, Cr-438	M = 5.5 Size = 29' SB = 21.7
NGC-6811 (OC)	1	Hole in a Cluster, Cr-402	M = 6.8 Size = 13' SB = 21.0
NGC-6871 (OC)	1	GC-4548, h-2067, Struve 2630	M = 5.2 Size = 20' SB = 20.3
NGC-6883 (OC)			M = 8.0 Size = 15' SB = 22.5
STAR-26 (AS)	<u>1</u> , <u>2</u>	Red Necked Emu	Stars = 26 Size = 40' SAO-069653, HIP-99719

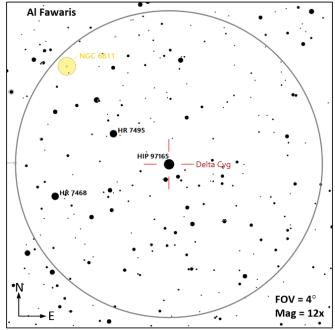


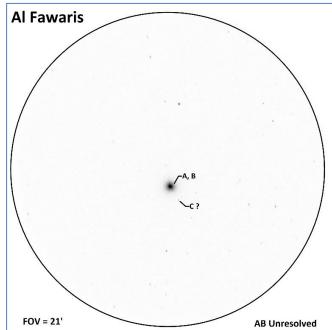
Albireo (DS **AB** | M = 3.2, 4.7 | Sep = 34.6" | PA = 54° |) – The tail star for the swan, this should be quite easy to locate. This is one of the most celebrated double star systems in the northern sky. Composed of a gold and blue star these contrasting colors dazzle the observer. With a separation of 34.6" this system is easily separated in even the smallest of telescopes.



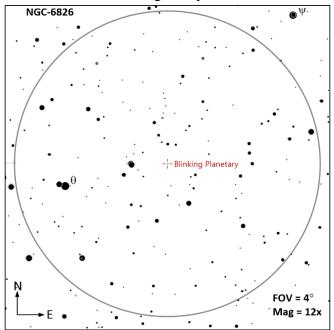


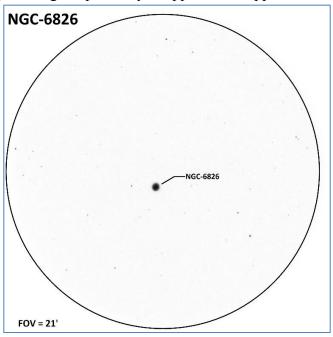
Delta Cyg (MS-3 **AB** | M = 2.9, 6.3 | Sep=2.7" | PA=213° || **AC** | M = 2.9, 12.0 | Sep=62.5" | PA=67° |) – Al Fawaris is easily located and helps make up the west wing of this constellation. High magnification is required to resolve the two main stars (A & B component) in this system, while the third component (C) is quite dim and separated from the AB component of this system.



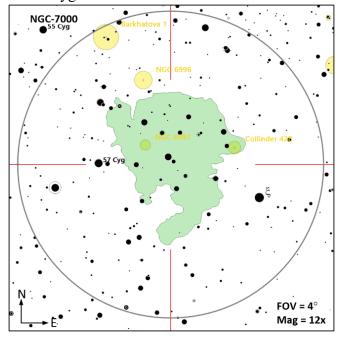


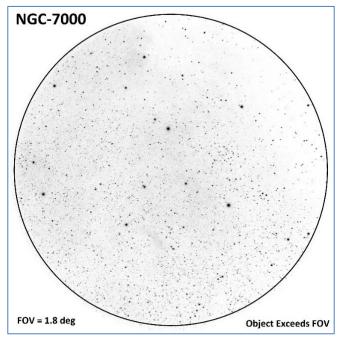
NGC-6826 (PN | M= 8.8 | Size= 2.1' | SB = 20.4) – Famously known as the "Blinking Planetary". This can be located by drawing an imaginary line between the tip of the west wing of Cygnus and the head star (Deneb). Following this line the object is approximately 2.5° along this line. The planetary appears to blink due to the central star overwhelming the eye when looked at directly causing the planetary to appear to disappear.



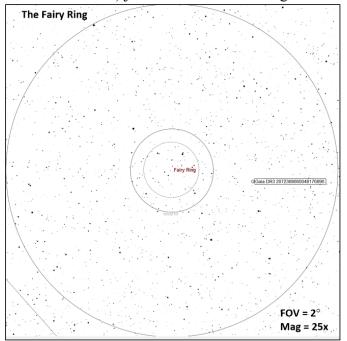


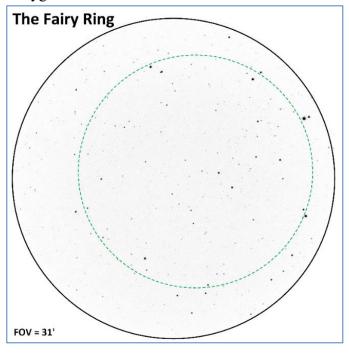
NGC-7000 (EN | M= 4.0 | Size= 120' x 100') – The North American Nebula is probably best viewed with binoculars in dark skies; it is quite large and dim. It is located just north of the imaginary line between Deneb and Nu Cyg.



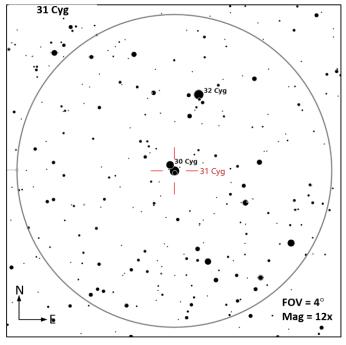


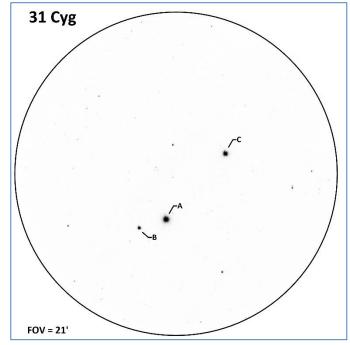
Fairy Ring (AS | Stars = 12 | Size=20') – This little know asterism is a grouping of about 6 double star systems that are roughly arranged in a circle. From Eta Cyg located in the tail of the swan move up toward Sadr (the breast of the swan) just a little over three degrees from Eta Cyg and and $\frac{1}{2}$ ° to the west.



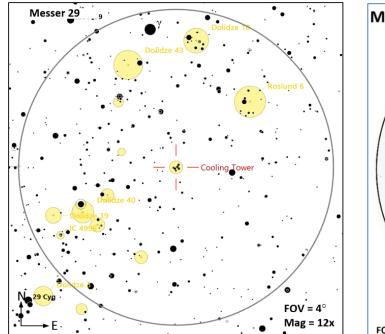


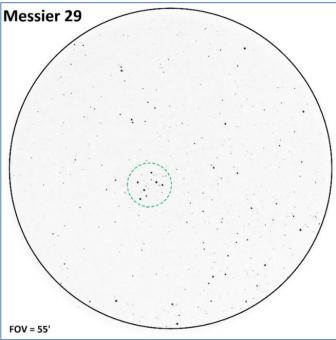
31 Cyg (MS-3 AC | M= 3.9, 7.0 | Sep=108" | PA=173° || AD | M= 3.9, 4.8 | Sep=337" | PA=322° |) — Located in the mid-section of the west wing this is the only brighter star in this region. This is a great triple star system whose components (A, C, D) should be resolvable. The system apparently actually consists of six stars.



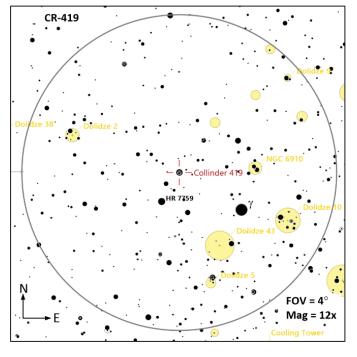


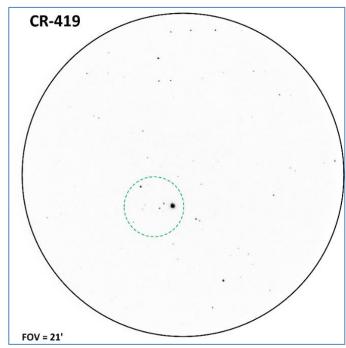
M-29 (M = $7.1 \mid \text{Size} = 7.0' \mid \text{SB} = 21.9$) – The Cooling Tower is a nice open cluster of seven or eight stars grouped together. This cluster is located about 1.5° south-eest of the star Sadr.



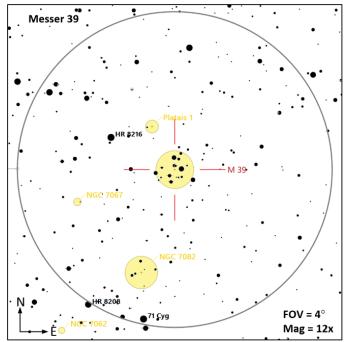


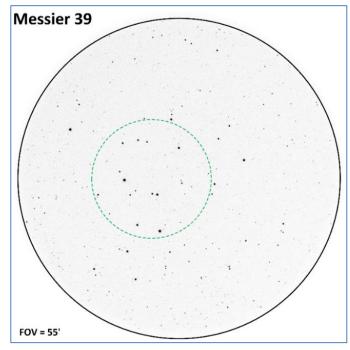
CR-419 (M = $9.0 \mid \text{Size} = 7' \mid \text{SB} = 21.9$) – Located at about 1° West of Sadr this cluster is also known as Colliander 419.



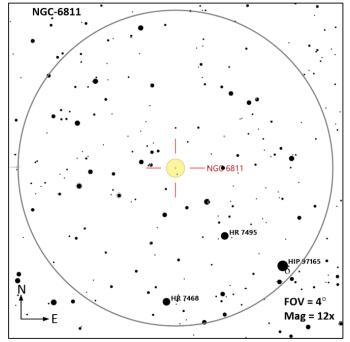


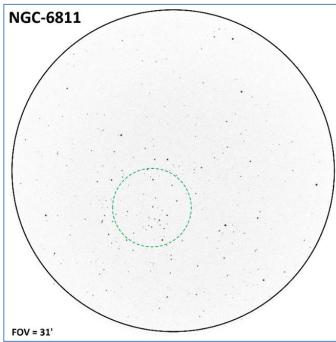
M-39 (M = 5.5 | Size = 29' | SB = 21.7) – The Pyramid cluster is a fairly large loose group of stars located about 9° Northeast of Deneb.



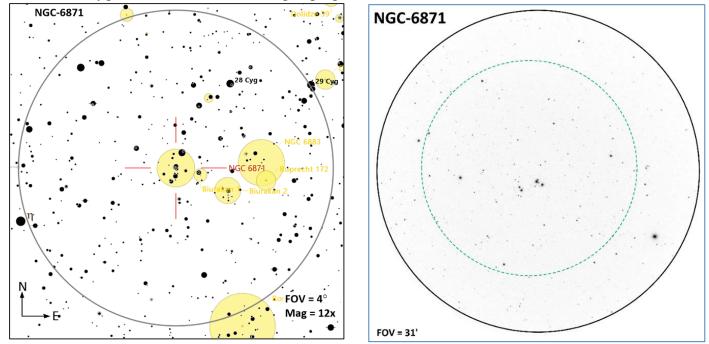


NGC-6811 (M = $6.8 \mid \text{Size} = 13' \mid \text{SB} = 21.0$) – Also known as Hole in Cluster, this is a loose grouping of stars located about 2° Northwest of Del Cyg.

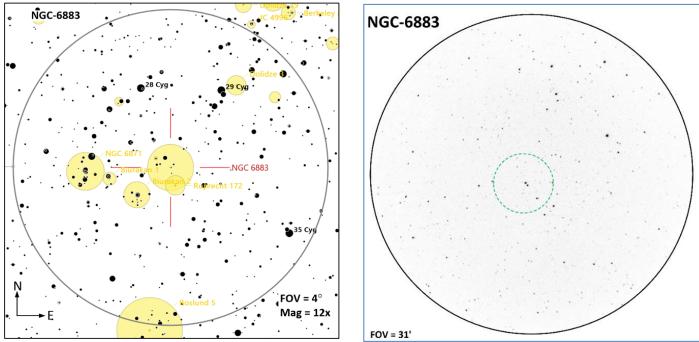




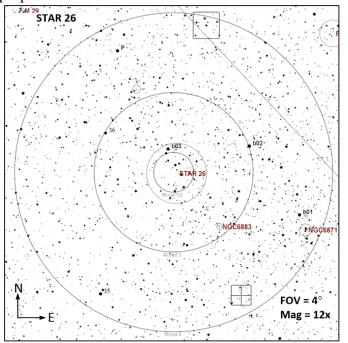
NGC-6871 (M = $5.2 \mid \text{Size} = 20^{\circ} \mid \text{SB} = 20.3$) – Located about 2° Northeast of along the imaginary line drawn between Eta Cyg and Sadr. This is a loose grouping of stars.

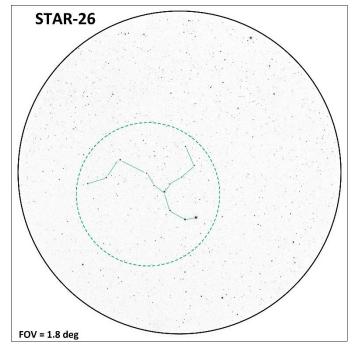


NGC-6883 (M = 8.0 | Size = 15' | SB = 22.5) – Continuing about 1° Northeast of NGC-6871 this is a small loosely grouped set of stars.



STAR 26 (Stars = $26 \mid \text{Size} = 40^{\circ}$) – The Red Necked Enu is an asterism that appears more like a three proppropeller blade located Southeast of Sadr.





References, Resources and Tools used to create this document

The resources listed below were utilize to generate this document.

References

- Books
 - o Objects in the Heavens: Peter Birren
 - o <u>Touring the Universe through Binoculars</u>: Philip Harrington
 - o <u>The Deep Sky</u>: Philip Harrington
 - o Double and Multiple Stars and How to Observe Them: James Mullaney
 - o Sky Spot Books
 - Bright Telescopic Objects: Brent Watson
 - Select Double Stars: Brent Watson
 - Overlooked Objects: Bret Watson
- Asterisms
 - o Astronomical League: <u>Asterisms observing program</u> List
 - o Asterisms: Demeiza Ramakers
 - o Pattern Asterisms: John Chiravalle
- Saguaro Astronomy Club
 - Asterisms List
 - o 110 Best of the NGC
 - o Red Stars List
- Online
 - o Wikipedia
 - o The Garden Astronomer: <u>Double, Multiple, and Special Star Observations List</u>
 - o Sky & Telescope: Colored Double Stars, Real and Imagined
 - o In-The-Sky.org
 - o Constellation-guide.com

Applications

- SkyTools 4.1 Visual Professional
- AstroPlanner Version 2.4
- Cartes du Ciel Version 4.3
- Sky Safari Pro 7
- Microsoft Office Home and business 2021 Word
- Microsoft Visio Professional 2010
- IrfanView Version 4.72