

Constellation Guide

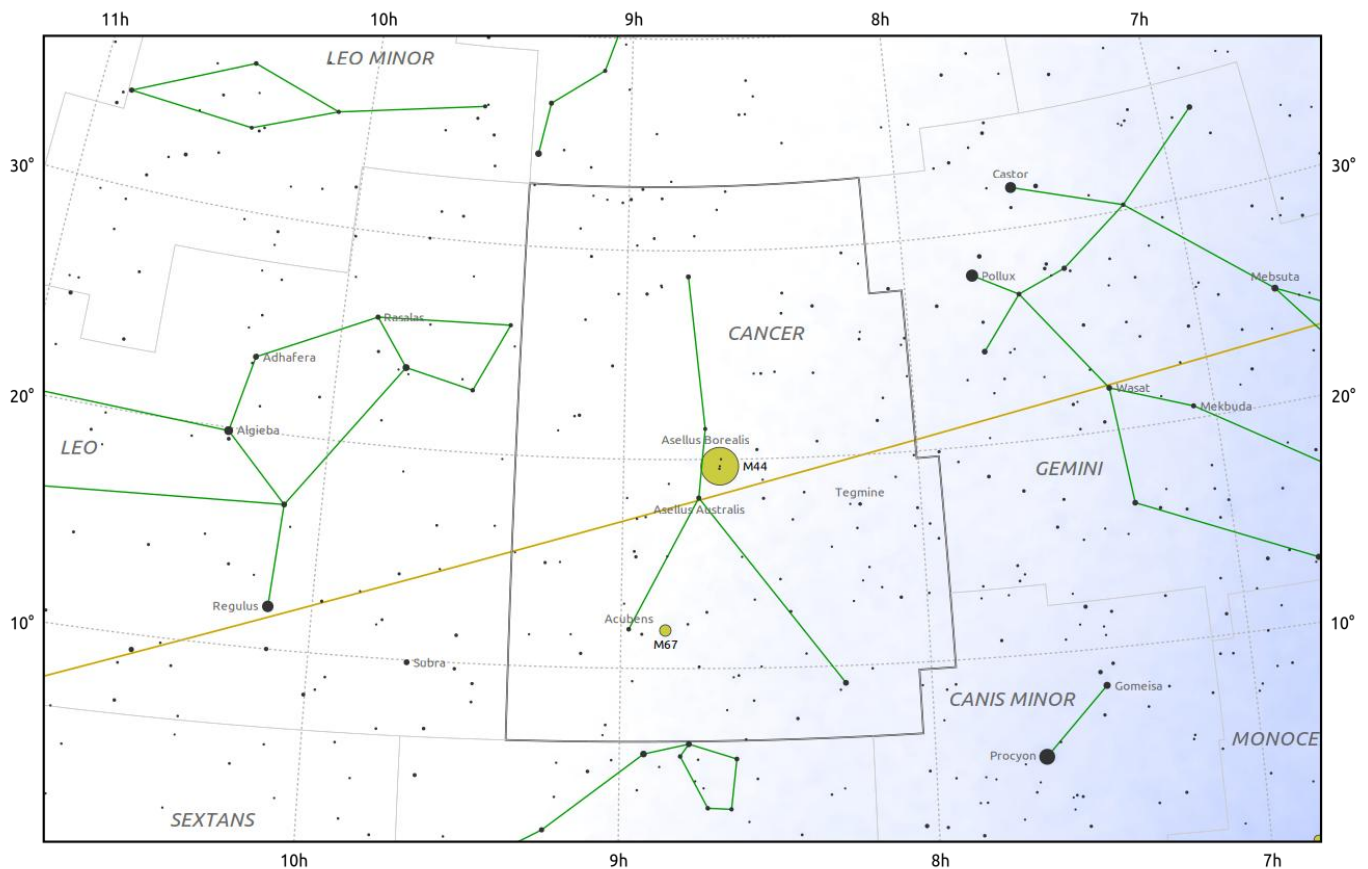
Cancer (Cnc)

Evening Visibility: **January - March**

Online Information: [Cancer](#)

More Online Information: [48 Cancri](#), [57 Cancri](#), [Phi¹ Cancri](#), [Messier 44](#), T Cancri, X Cancri, [Theta Cancri](#), [Tegmen](#), [Messier 67](#), [NGC-2775](#)

[In-The-Sky.org](#) Constellation Map



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Magnitude scale: -6.0 +5.0 +4.0 +3.0 +2.0 +1.0 0.0

— The Equator — Ecliptic Plane — Galactic Plane

● Galaxy ■ Bright nebula ● Open cluster ● Globular cluster ◆ Planetary nebula

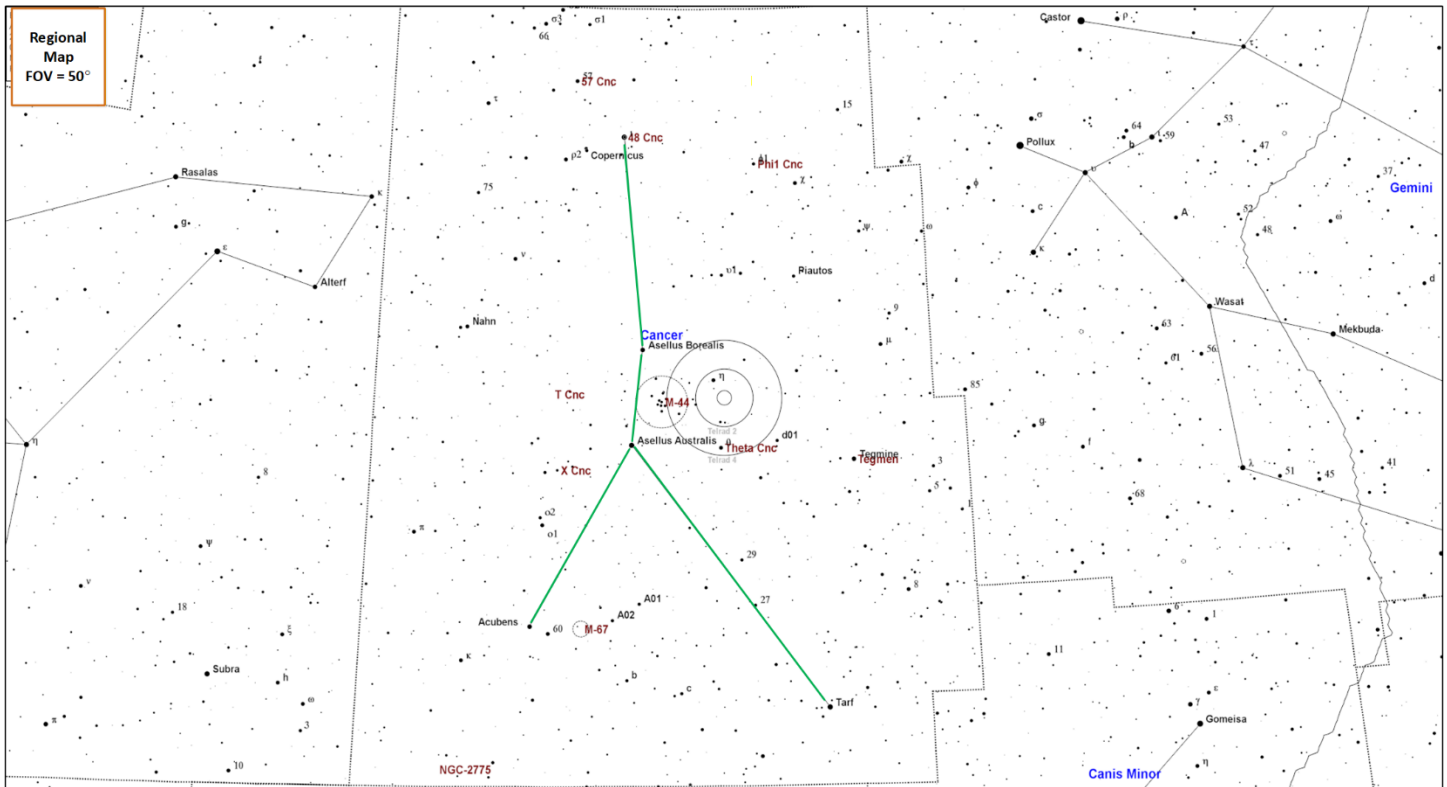
Cancer is Latin for “the crab”, and is the faintest of the 12 zodiac constellations. The constellation represents the crab that attached Hercules as he was battling Hydra. The crab was crushed underfoot during the battle. The constellation was catalogued by the Greek astronomer Ptolemy in the 2nd century CE. Cancer contains two Messier objects, a number of interesting stars and one Caldwell object.

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Constellation Highlights

- **Messier 44 (OC)** – The Beehive is a great target for binoculars and small telescopes.
- **Messier 67 (OC)** – King Cobra cluster is a dense open cluster, and excellent target for all instruments.
- **Tegmen (MS-3)** – A nice multiple star system with yellow and orange components.
- **48 Cancri (DS)** – An excellent double star system with gold and blue components. A great target for binoculars and telescopes.

Constellation Targets Map



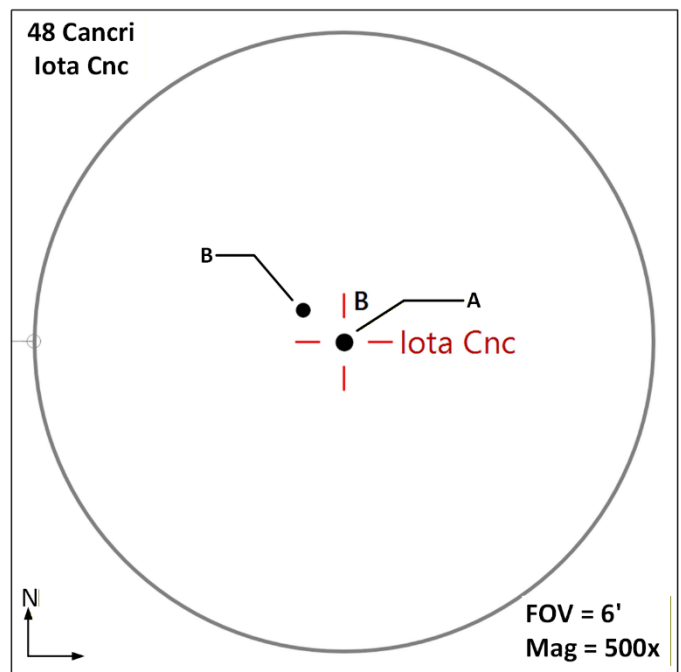
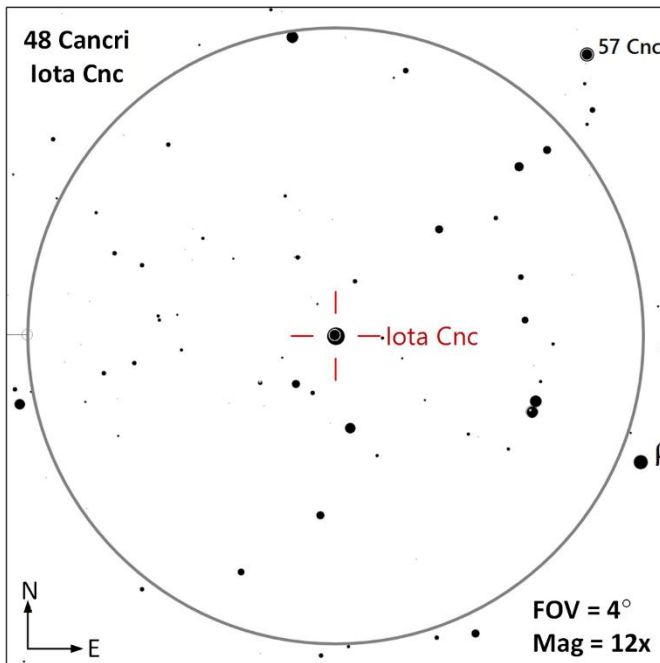
Region Objects Summary

Object (Type)	Ref	Aliases	Stats
48 Cancri (DS)	1 , 2	SAO-80415, HIP 43100, 48 Cnc, HD 74738, HR 3474, STF 1268, ADS 6988, ι Cnc, iota Cnc	AB M=4.1, 6.0 Sep=31" PA=308°
57 Cancri (MS-3)	1 , 2	SAO-061125, HIP 43721, HR 3532, HD 75959, STF 1291, ADS 7071	AB M=6.1, 6.4 Sep=1.5" PA=310° AB, C M=5.5, 9.2 Sep=55" PA=204°
Phi ¹ Cancri (DS)	1 , 2	SAO-080181, HIP 41377, 22 Cnc, HR 3304, HD 71093, S 566, φ ¹ Cnc	AB 5.7, 10.7 Sep=140" PA=20.7°
Messier 44 (OC)	1	Beehive Cluster, NGC-2632, Praesepe, Collinder 189, Cr-189	M=3.7 Size=95' SB=22.2 Stars = 40+
T Cancri (CS, DS)	1	SAO-080524, HIP 43905, BLL 27, T Cnc	Mag Range: 7.5 to 10.7 Period=474 days AB M=8.7, 12.8 Sep=139" PA=139°

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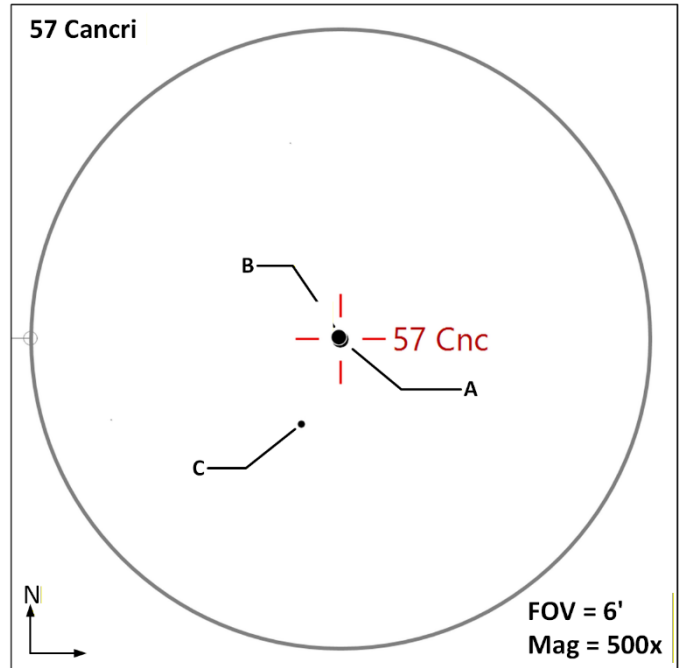
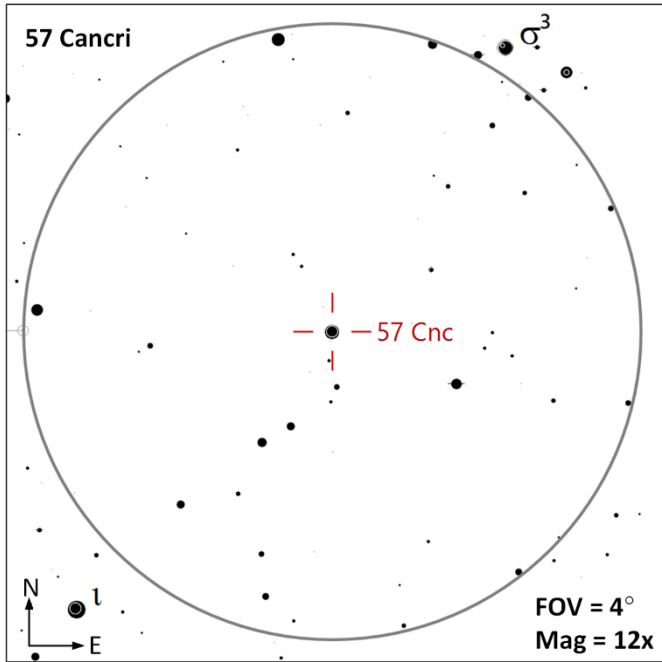
Object (Type)	Ref	Aliases	Stats
X Cancri (CS)	1	SAO-098230, HIP 43811, HR 3541, HD 76221, GC 12322	Mag Range = 5.5 to 7.5 Period=193 days, 35d, 1,870d
Theta Cancri (CS, DS)	1 , 2	SAO-097881, HIP 41822, 31 Cnc, HR 3357, HD 72094, HJ 2452, θ Cnc	Mag Range = Unknown Period = Unknown AB 5.5, 11.8 Sep=74.5" PA 62°
Tegmen (MS-3)	1 , 2	SAO-097645, HIP 40167, 16 Cnc, HR 3209, HD 68255, STF 1196, ADS 6650 Zeta Cancri, ζ Cnc, Tegmine, Tegmeni	AB M=5.3, 6.3 Sep=1.1' PA=349° AB, C M=4.9, 5.8 Sep=6.3" PA=57° AC M=5.3, 5.8 Sep=6.2" PA=61°
Messier 67 (OC)	1	NGC-2682, King Cobra, Golden Eye Cluster	M=6.1 Size=30' SB=22.1 Stars = 100+
NGC-2775 (G)	1	Caldwell 48, C-48, UGC 4820, PGC 25861, MCG 1-24-5	M=10.4 Size=4.3'x3.3' SB=21.9

48 Cancri (DS AB | M=4.1, 6.0 | Sep=31" | PA=308° |) – A contrasting gold/blue double star system that should be a delight in telescopes and binoculars. It is estimated that these stars orbit each other at an average distance of 3,236 AU. The A component has a mass of 2.4 times that of the sun and has expanded to 21 times the sun’s radius. The B component has a mass of 2.1 time that of our sun with a radius of 1.9 time that of our suns.

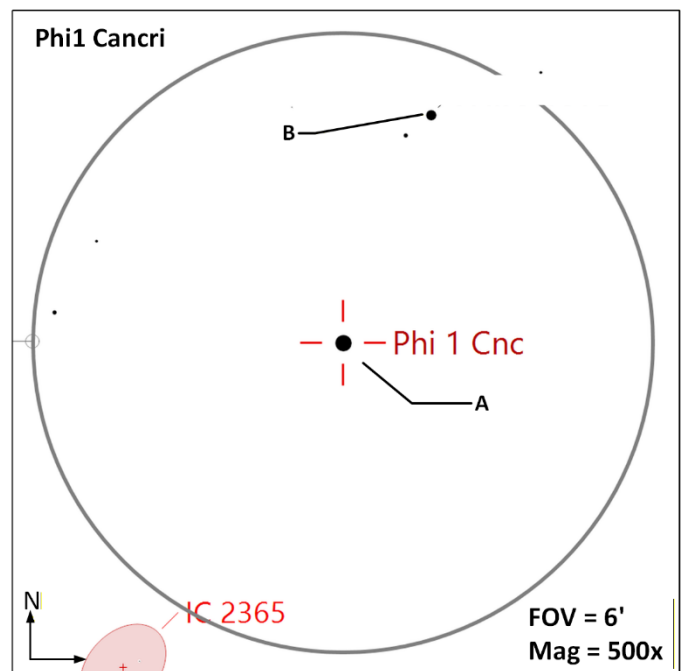
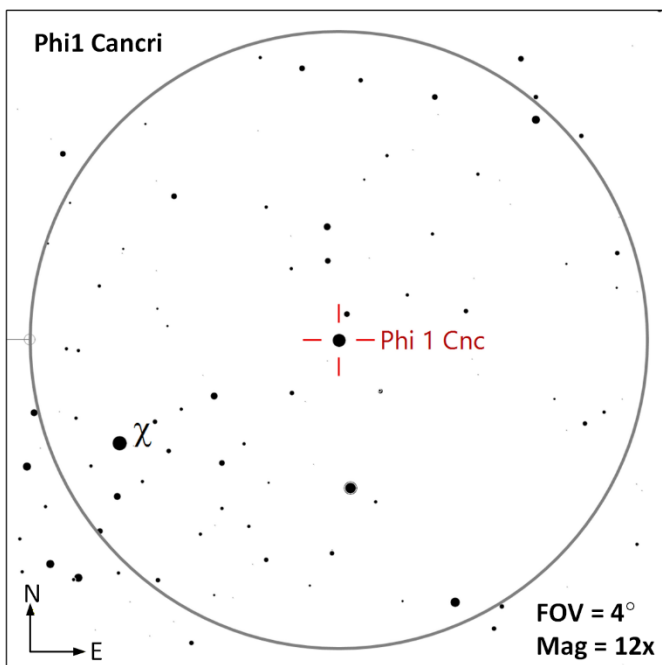


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57 Cancri (MS-3 AB | M=6.1, 6.4 | Sep=1.5" | PA=310° || AB, C | M=5.5, 9.2 | Sep=55" | PA=204°) – This triple star system is located 460 ly from our sun. The AB components are physically related while the C component is an Optical component.

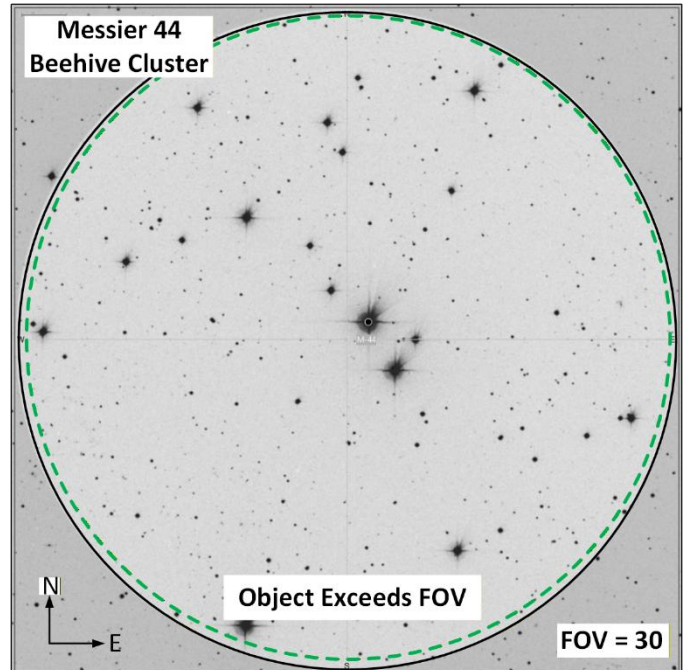
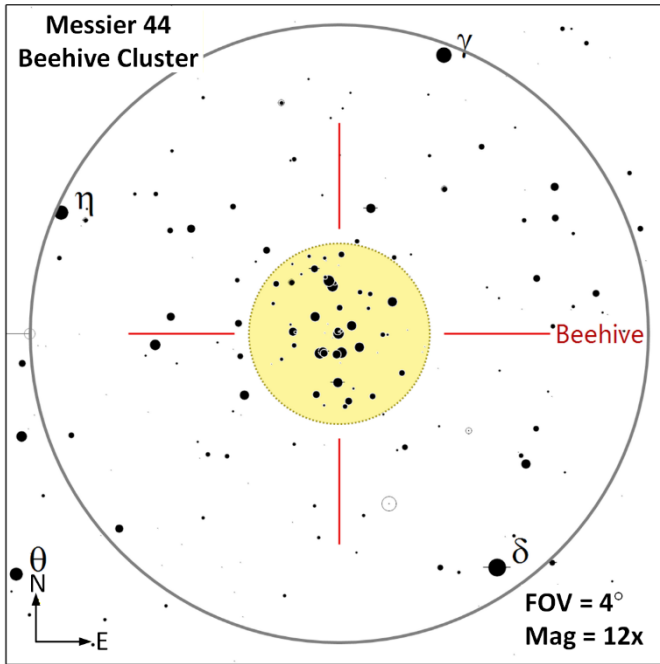


Phi¹ Cancri (DS AB | 5.7, 10.7 | Sep=140" | PA=20.7°) – 22 Cancri is an orange giant located 373 ly from Earth and is 25.5 times the diameter of our sun with a mass of 1.2 time that of our sun. This is an optical double star system with a much dimmer star at 10.7 magnitude well-spaced from the primary, so a good target for binoculars.

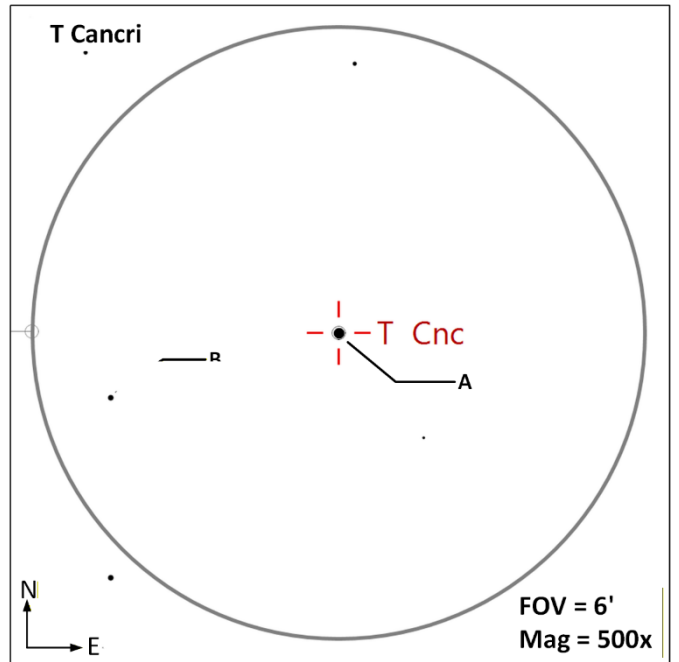
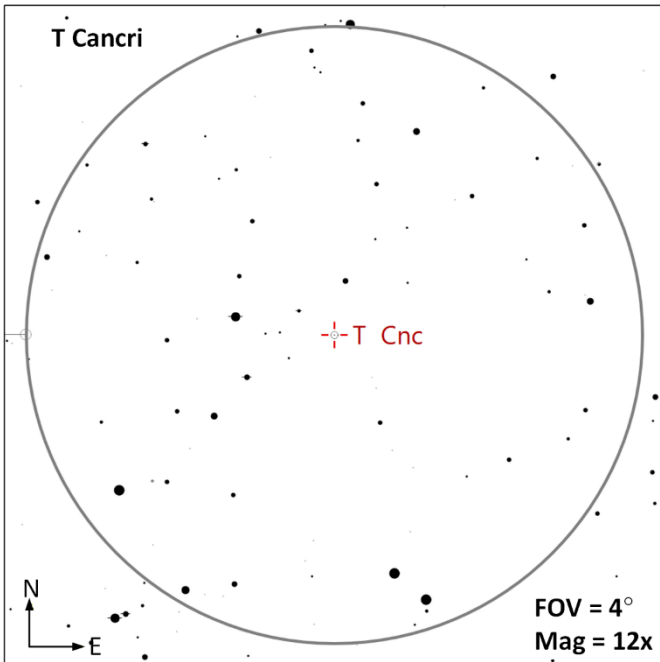


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Messier 44 (OC | M=3.7 | Size=95' | SB=22.2 | Stars=40+) – The Beehive Cluster is one of the nearest open clusters to Earth at a distance of 610 ly. The estimated age of this cluster 600 to 700 million years old and is expected to have an overall mass of 500 to 600 solar masses and contains an estimated 1,000 stars. This constellation is visible as a small nebulous object to the naked eye in dark skies.

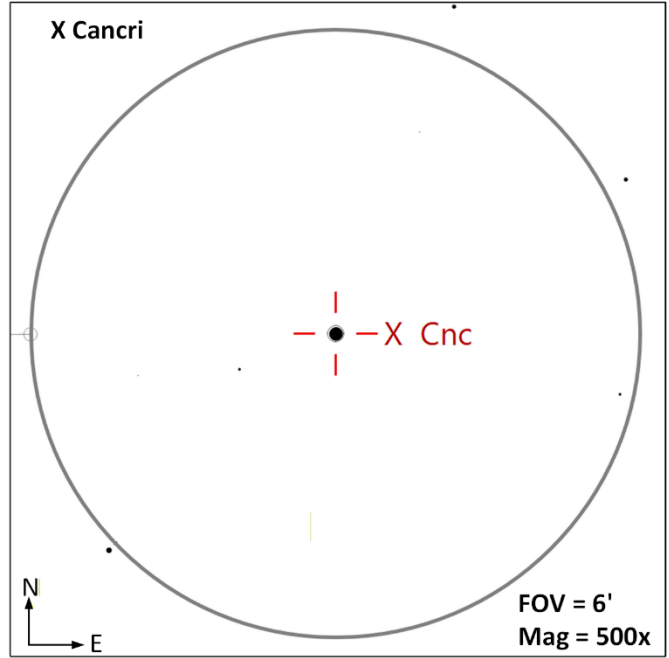
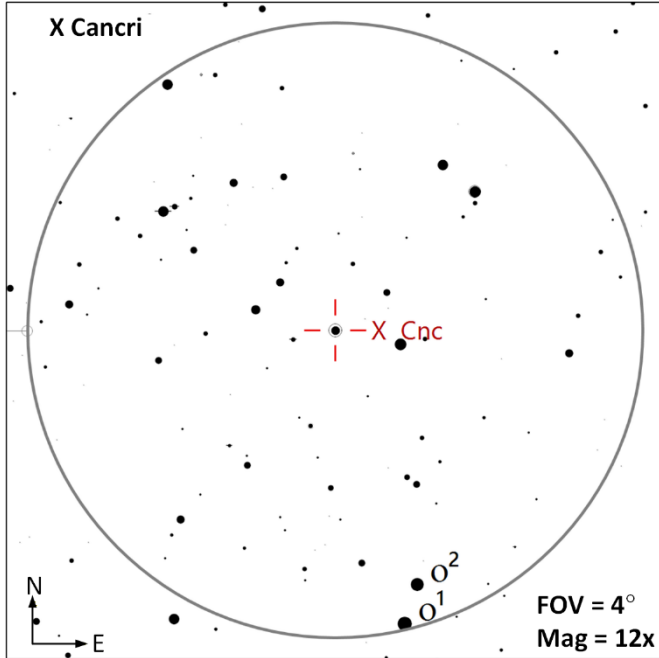


T Cancri (CS, DS | Mag Range: 7.5 to 10.7 | Period=474 days | **AB** | M=8.7, 12.8 | Sep=139" | PA=139°) – A carbon star that is also a double conflicting information on if the B component is a physical or optical companion.

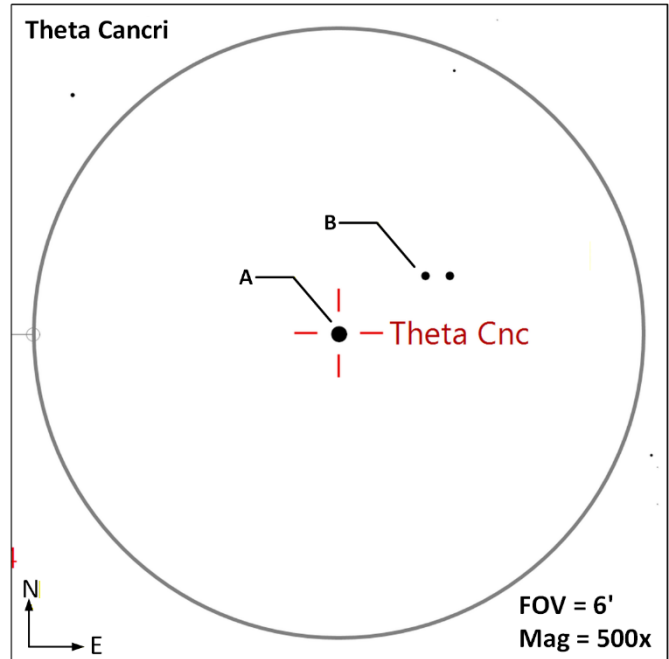
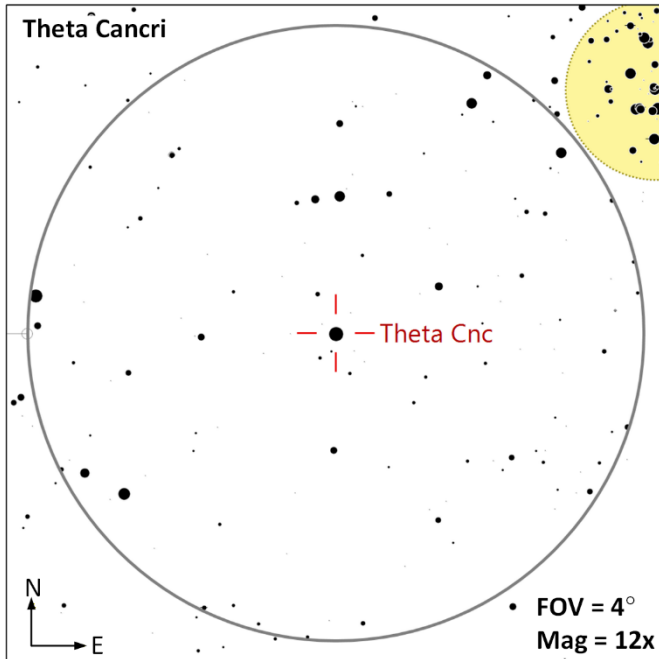


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X Cancri (CS | Mag Range = 5.5 to 7.5 | Period=193 days, 35d, 1,870d) – X Cnc is located 1,860 ly from our sun and is a carbon star with a period of 193 days, it also pulsates with periods of 350 and 1,870 days.

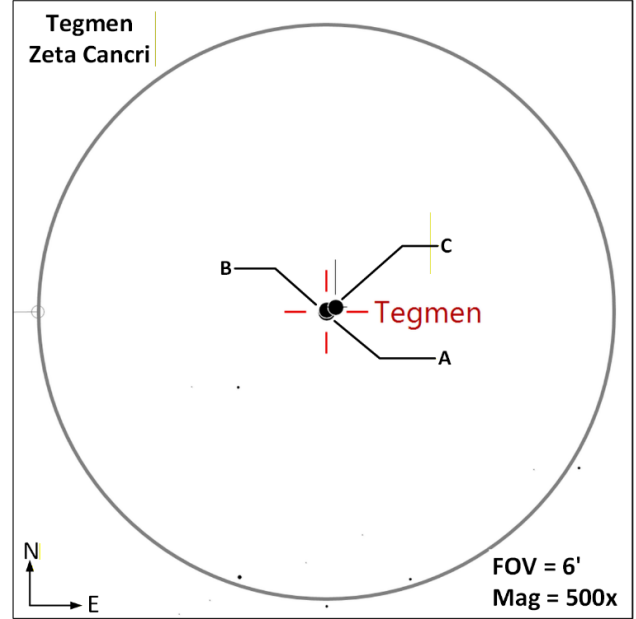
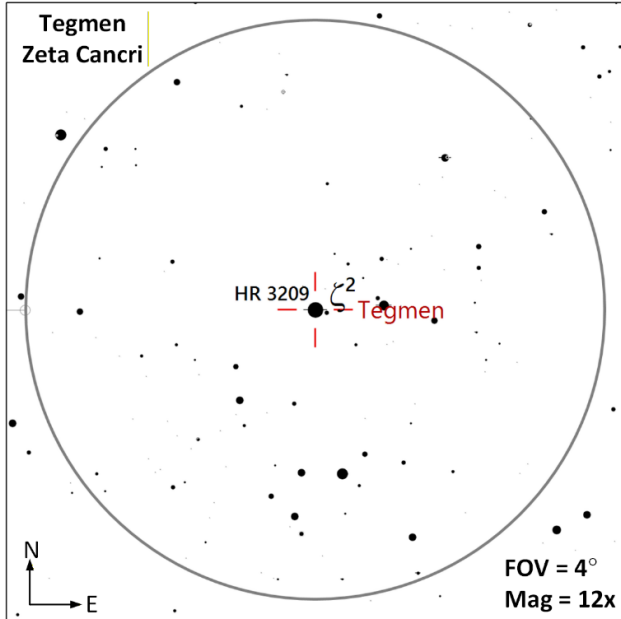


Theta Cancri (DS | Mag Range = Unknown | Period = Unknown || **AB** | 5.5, 11.8 | Sep=74.5" | PA 62° |) – This is an optical double. The A component is 415 ly from earth and a red giant and eruptive variable star whose magnitude varies with an irregular period. This pair appears as a red/white pair of stars.

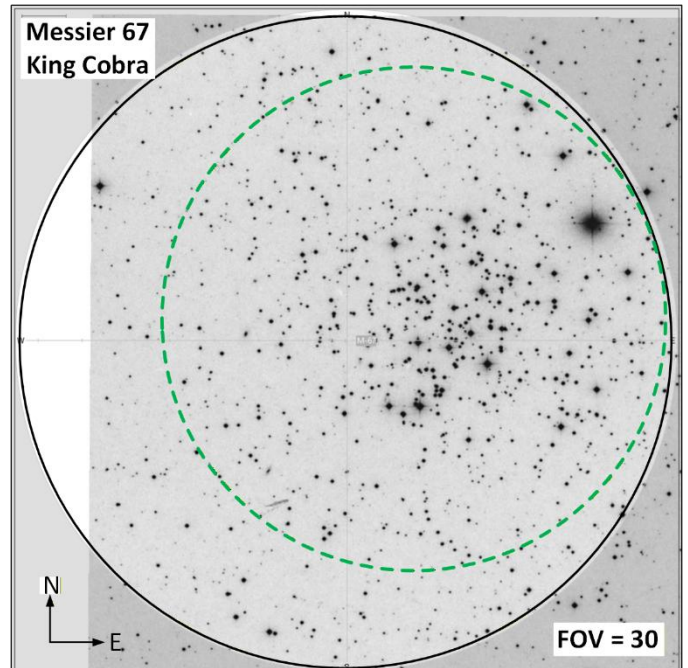
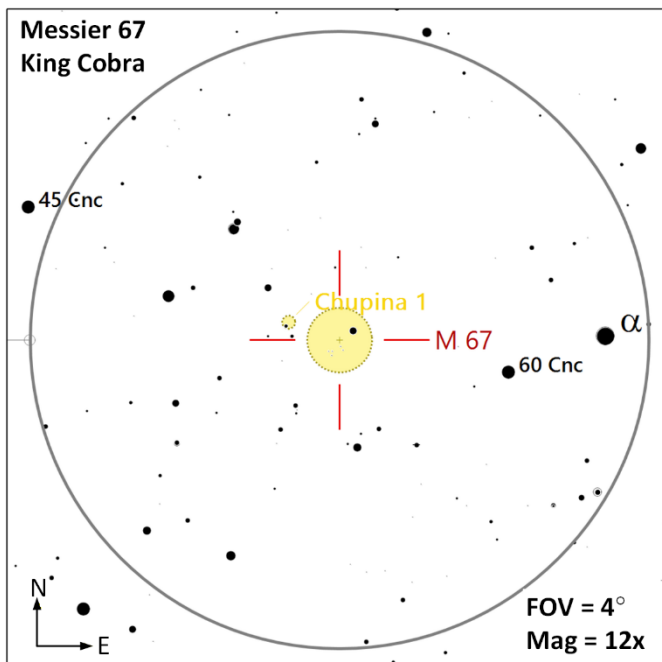


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Tegmen (MS-3 **AB** | M=5.3, 6.3 | Sep=1.1' | PA=349° || **AB, C** | M=4.9, 5.8 | Sep=6.3'' | PA=57° || **AC** | M=5.3, 5.8 | Sep=6.2'' | PA=61°) – This star system is composed of two binary star systems zeta1(A and B components) and zeta2(C component) orbiting each other 1,100 years. The AB components orbit each other every 60 years and may require a telescope with 150mm (6'') or more aperture to separate. This is delightful multiple star system to observe in both binoculars and telescopes; components appear yellow & Orange.

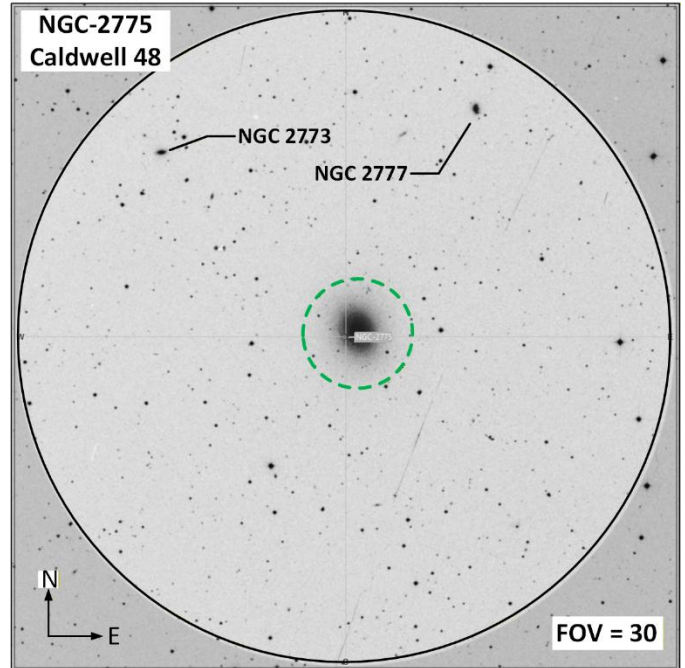
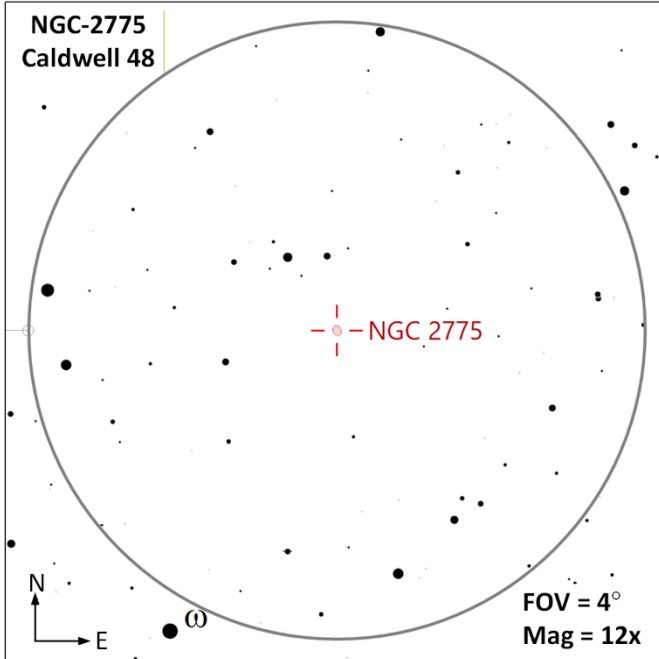


Messier 67 (OC | M=6.1 | Size=30' | SB=22.1 | Stars=100+) – The King Cobra Cluster is estimated to be between 3.2 and 5 billion years old and estimated to be 2,600 to 2,900 ly from Earth. Currently it is suspected this cluster has over 500 members with an overall mass (for the cluster) of 1,400 solar masses. Binoculars show about 16 stars while telescopes may reveal 100 or more stars in this cluster.



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NGC-2775 (G | M=10.4 | Size=4.3'x3.3' | SB=21.9 |) – A is an unbarred spiral galaxy with a prominent ring structure (in photographs) 67 million ly from earth, morphological Classification of this galaxy is SA(r)ab. Faint galaxies NGC-2773 and NGC-2777 may appear in the same medium field of view. NGC-2777 is a companion galaxy while NGC-2773 is not associated with this galaxy



Constellation Guide

Observation Log: Cancer (Cnc)

Equipment Config A: _____ **Config B:** _____

Notes: _____

Date	Time	Config	Target	Notes

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Observation Log: Cancer (Cnc)

Equipment Config A: _____ **Config B:** _____

Notes: _____

Date	Time	Config	Target	Notes

Date	Time	Config	Target	Notes

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References, Resources and Tools used to create this document

The resources listed below were utilized to generate this document.

References

- Books
 - [Objects in the Heavens](#): Peter Birren
 - [Touring the Universe through Binoculars](#): Philip Harrington
 - [The Deep Sky](#): Philip Harrington
 - [Double and Multiple Stars and How to Observe Them](#): James Mullaney
 - Celestial Portraits: [Tom Polakis](#)
 - [Sky Spot](#) Books
 - Bright Telescopic Objects: Brent Watson
 - Select Double Stars: Brent Watson
 - Overlooked Objects: Bret Watson
- Asterisms
 - Astronomical League: [Asterisms observing program](#) List
 - Asterisms: Demeiza Ramakers
 - [Pattern Asterisms](#): John Chiravalle
 - Milwaukee Astronomical Society: [Binocular Asterisms](#)
 - Deep-Sky.co.uk: [Observing Asterisms](#) (David Ratlege)
- [Saguaro Astronomy Club](#)
 - Asterisms List
 - [110 Best of the NGC](#)
 - Red Stars List
- Online
 - [Wikipedia](#)
 - The Garden Astronomer: [Double, Multiple, and Special Star Observations List](#)
 - Sky & Telescope: [Colored Double Stars, Real and Imagined](#)
 - [In-The-Sky.org](#)
 - [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 2021
- [IrfanView](#) Version 4.72