

Constellation Guide

Libra (Lib)

Evening Visibility: **April – June**

Opposition: May

Latitude Visibility: **+65° to -90°**

Online Information: | In-The-Sky.org | Constellation Guide.com |

Constellation Targets

Struve 1962, [Iota 1 Librae](#), Merrill 2-1, [NGC-5897](#), [Zubeneschamali](#), NGC-5878, NGC-5812, 18 Librae, [NGC-5792](#), [Zubenelgenubi](#), [Mu Librae](#)

Mythology/Back Story

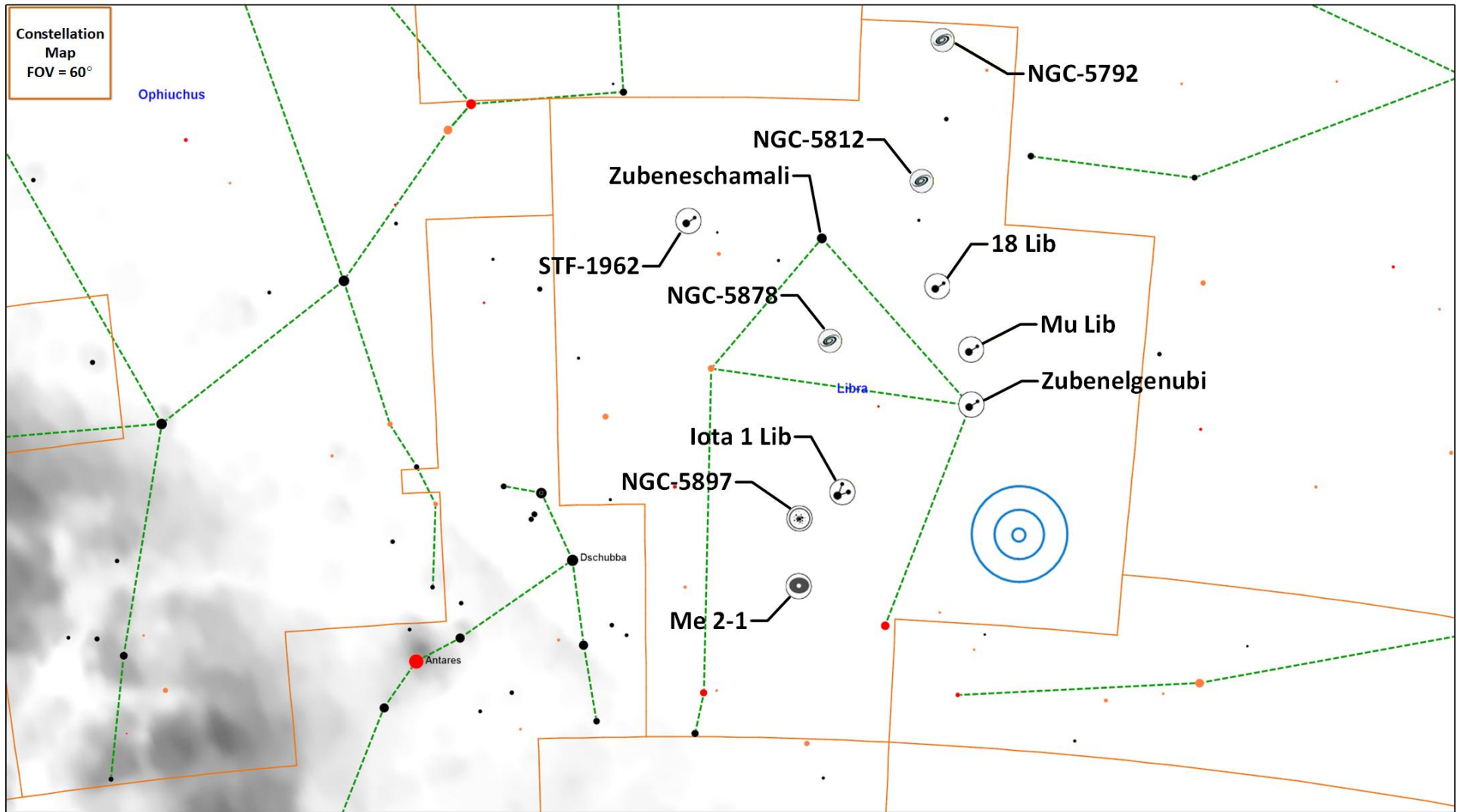
Libra is Latin for ‘Scales’ and is associated with Virgo holding the scales of justice. This is the only zodiac constellation named after an inanimate object. Originally, the ancient Greeks knew this constellation as the ‘Claws of the scorpion’, part of the Scorpius constellation. The Romans made it into a separate constellation in the time of Julius Ceasar. The two brightest stars Zubenelgenubi and Zubeneschamali are Arabic for the southern claw and the northern claw respectively, showing the link to the origins of the constellation where it was associated with Scorpius.

Constellation Highlights

Libra does not have a high concentration of deep sky objects and most of the ones it does have are more appropriate for larger aperture telescopes. There are a few multiple star systems that may be worth checking out.

- **Iota 1 Librae** (MS-3) – Triple system
- **Zubeneschamali** (VS) – Rare greenish colored star
- **NGC-5897** (GC) – May be more of a target for larger telescopes
- **Zubenelgenubi** (DS) – Wide double good for binoculars and small telescopes

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Asterism	Carbon Star	Carbon Double	Dark Nebula	Double Star	Galaxy	Galaxy Cluster	Globular Cluster	Multiple Items	Multiple Star	Nebula	Nebula & O Cluster	Open Cluster	Planetary Nebula	Supernova Remnant

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Constellation Objects Summary

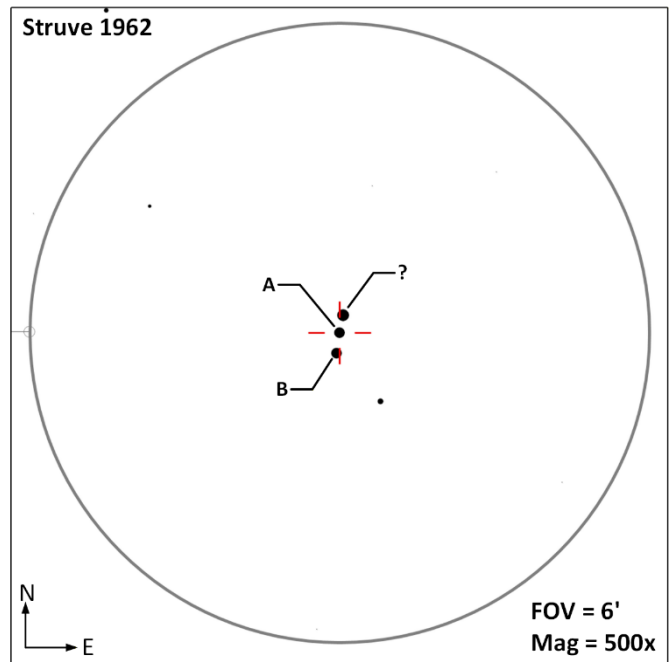
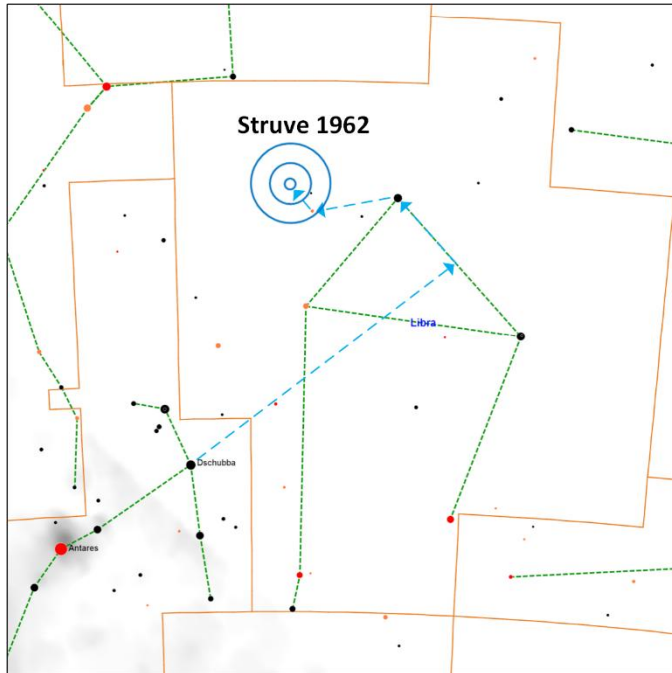
Object (Type)	Links	Gear	Aliases	Stats
Struve 1962 (DS)	1	B,T	SAO-140671, HIP 76602, HR 5815, HD 139460, STF 1962, ADS 9728, BD -08 4031, ADS 9728, WDS 15387-0847, TYC 5596-1232-1, SACDBL1179	AB M=6.4, 6.5 Sep=11.7" PA=188° Color=Yellow-White, Yellow-White Spec= F8V, F8V
Iota1 Librae (MS-3)	1 , 2	B, T	SAO-159090, HIP 74392, 24 Lib, HR 5652, HD 134759, H 6, ADS 9532, WDS15122-1948, ι ¹ Lib	AB M=4.5, 10.9 Sep=58" PA=111° Color= Yellow, Purple Spec=A0pSi BC M=10.9, 11.4 Sep=2.1" PA=13° Color= Yellow Spec=G5IV
Merrill 2-1 (PN)		T	Me 2-1, Y-C 2-18, He 2-126, Sa 2-12, StWr 4-2, Wray 16-176, ARO 88, PK 342+27.1, PN G342.1+27.5, ESO 514-12, VV 72	M=11.0 Size=0.1' SB=14.6
NGC-5897 (GC)	1	T	ESO 582-SC2, GCl 33, C 1514-208	M=8.5 Size=6.3' SB=21.1 MC=XI
Zubeneschamali (VS)	1	B, T	SAO-140430, 27 Lib, HR 5685, HD 135742, Zuben Elschemali, Zubenesh, Beta Librae, β Librae, The Northern Claw	M= 2.6 Color=Greenish Spec=B8V
NGC-5878 (G)		T	UGCA 403, PGC 54364, MCG -2-39-6, IRAS 15109-1405	M=11.5 Size= 3.5'x1.4' SB=21.9 MC=Sb
NGC-5812 (G)		T	UGCA 398, PGC 53630, MCG -1-38-16	M=11.2 Size=2.3'x2.0' SB=21.5 MC=E1
18 Librae (DS)	1	B, T	-158946, HIP 73310, HR5582, HD132345, STF1894, WDS14589-1109, ADS 9456,	AB M=6.0, 9.8 Sep=19.9" PA=38° Color= Yellow-Orange Spec=K2III-IV AC M=6.0, 11.4 Sep=175" PA=42°
NGC-5792 (G)	1	T	UGC 9631, PGC 53499, MCG 0-38-12, CGCG 20-38, IRAS 14557-0053	M=12.1 Size=6.9'x1.7' SB=23.4 SB=SAB(rs)b
Zubenelgenubi (DS)	1 , 2	B, T	SAO-158840, HIP 72622, 9 Lib, HR 5531, HD 130841, SHJ 186, Zuben Elgenubi, Kiffa Australis, Elkhiffa Australis, Lanx Australis, Alpha Librae, α ² Lib, Southern claw	AB M=2.7, 5.2 Sep=231" PA=314° Color=White, Yellow-White Spec= A3IV, F4IV
Mu Librae (DS)	1 , 2	T	SAO-158821, HIP 72489, 7 Lib, HR 5523, HD 130559, BU 106, ADS, 9396, μ Lib	AB M=5.6, 6.6 Sep=1.9" PA=8.4° Period=614y Color= White, White Spec=A1pSrCrEu

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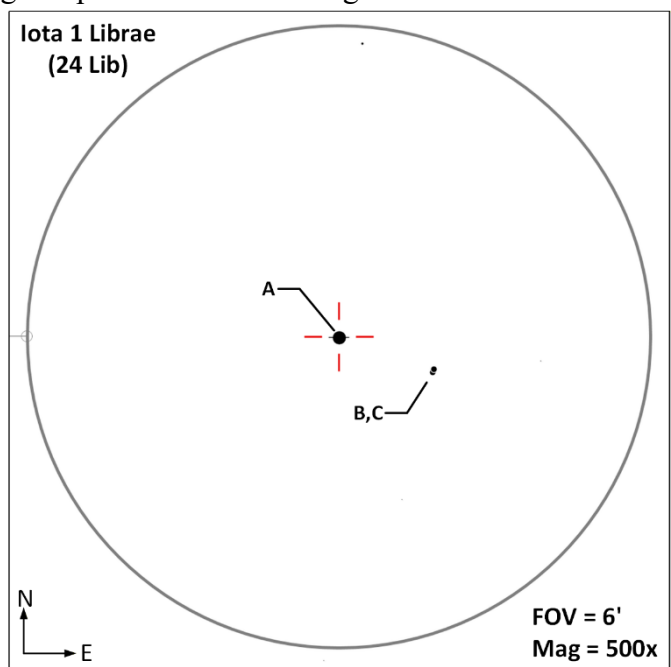
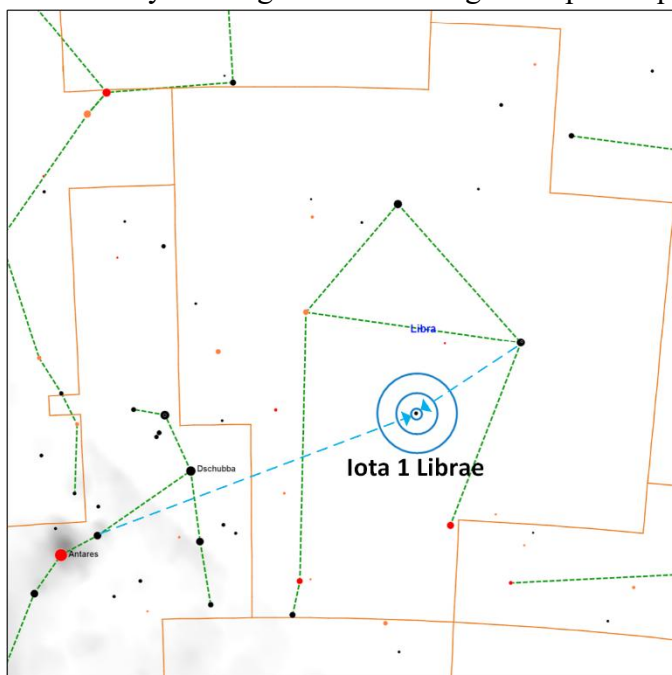
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Struve 1962 (MS-3 AB | M=6.4, 6.5 | Sep=11.7" | PA=188° | Color=Yellow-White, Yellow-White | Spec=F8V, F8V |) Evenly match stars located 80 light years away, that are easily separated in a small telescope. Reportedly the color appears paler in larger aperture telescopes. Not sure what to make of the 3rd star shown in the 500x view below, doesn't seem like it should be there, and does not appear in the Sky Safari view.

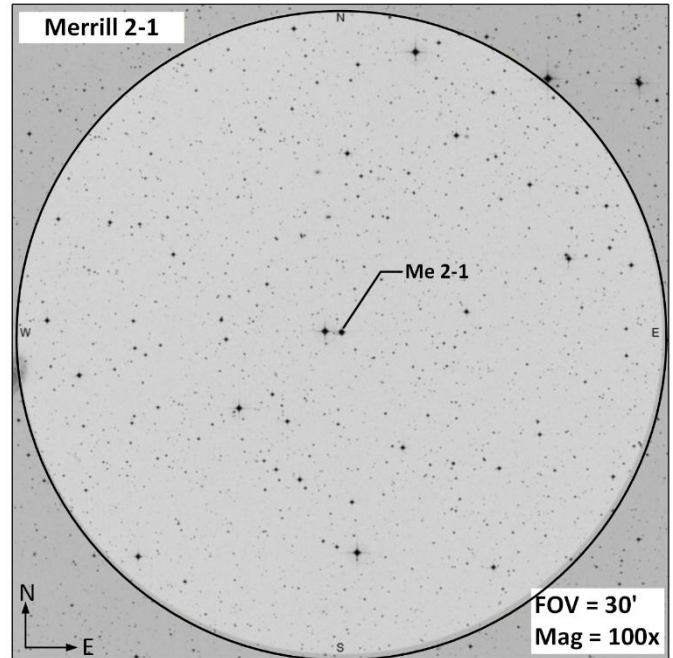
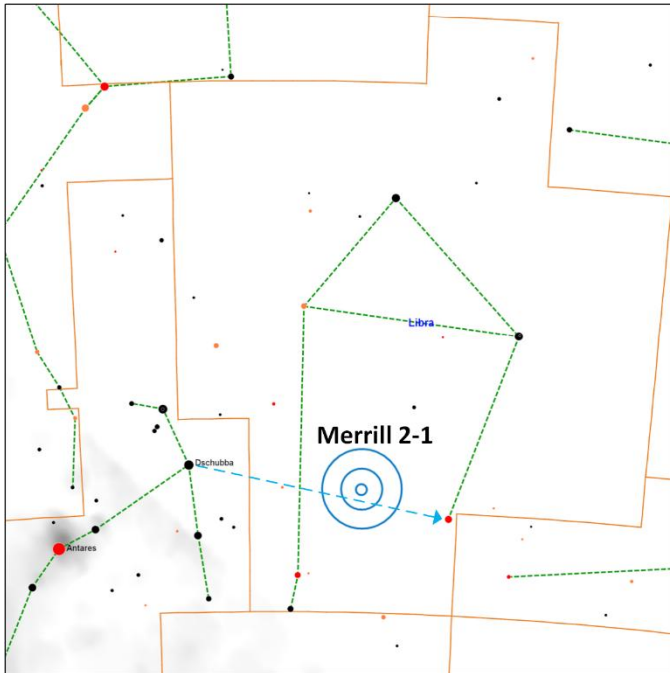


Iota 1 Librae (MS-3 AB | M=4.5, 10.9 | Sep=58" | PA=111° | Color= Yellow, Purple | Spec=A0pSi | | BC | M=10.9, 11.4 | Sep=2.1" | PA=13° | Color= Yellow | Spec=G5IV |) Located 380 light years away, the estimated average distance from the primary to the secondary is 6,729 AU. The B component is quite dim and composed of two closely orbiting stars measuring 2.1" apart requiring an aperture of 75 mm or greater to resolve.

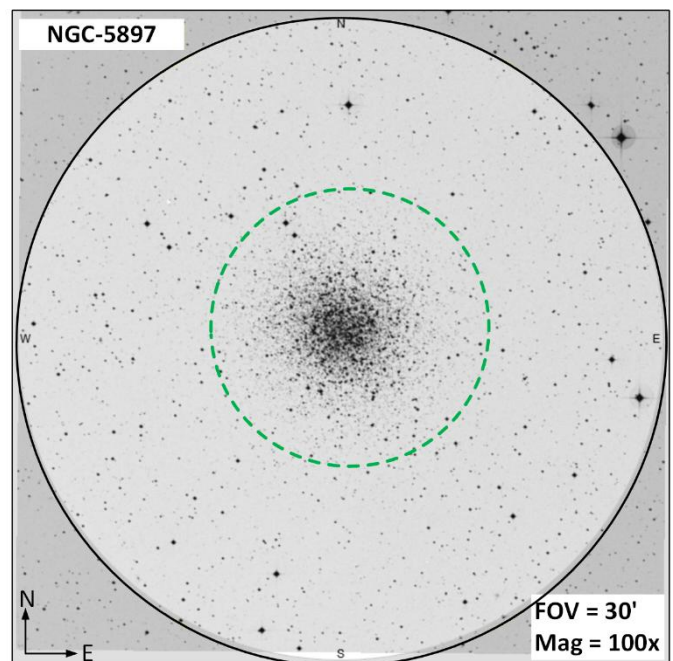
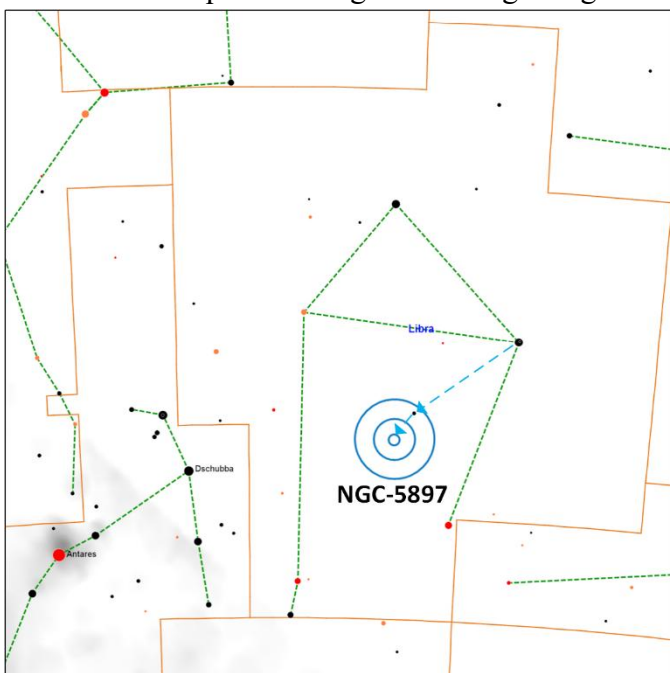


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Merrill 2-1 (PN | M=11.0 | Size=0.1' | SB=14.6 |) Using a nebula filter may help identify this object (an Oxygen filter may be even better). At an aperture of 10" at low magnification may enable the view to see a slight blue color on this small object.

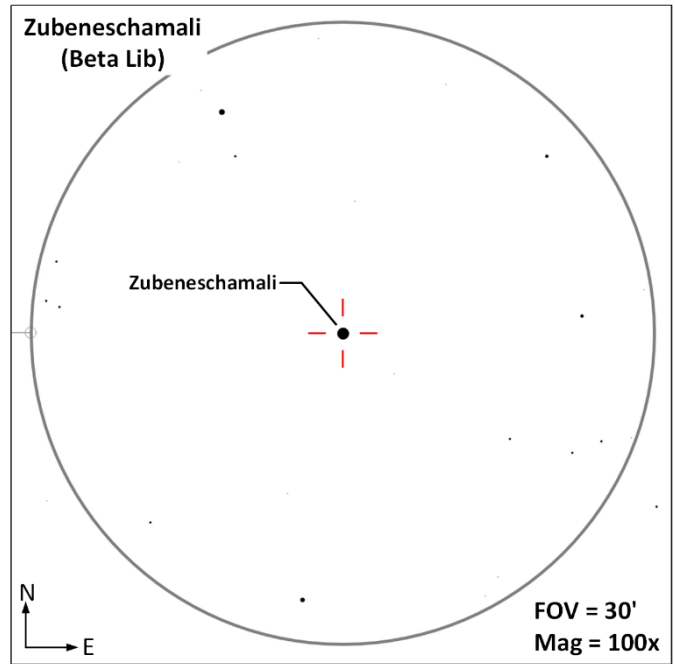
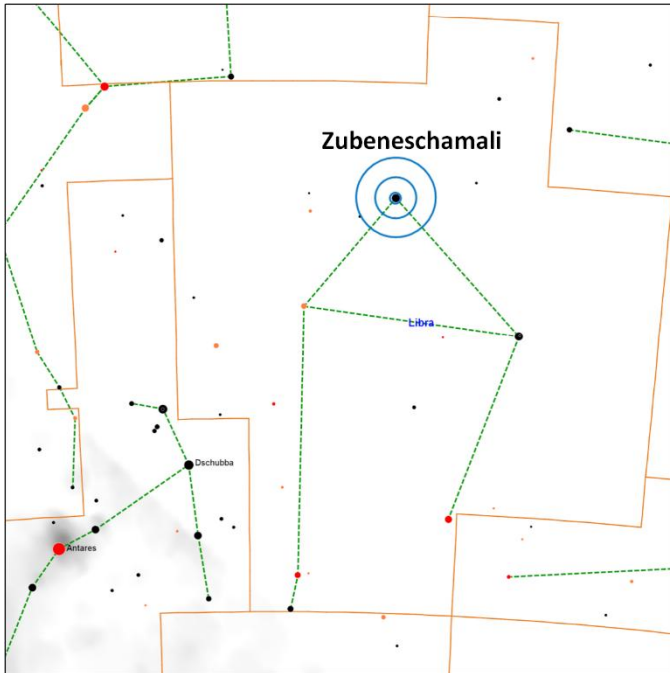


NGC-5897 (GC | M=8.5 | Size=6.3' | SB=21.1 | MC=XI |) A distant globular cluster, 41,000 light years away with a physical diameter of 170 light years. A type XI globular cluster, this is a low star density cluster. It is expected that this object formed in a time before the galaxy formed a disk and spiral arms. However, some of the star in this cluster are suspected of being younger, suggesting multiple star-forming epochs. An aperture of 13" or more is required to begin resolving this globular cluster.

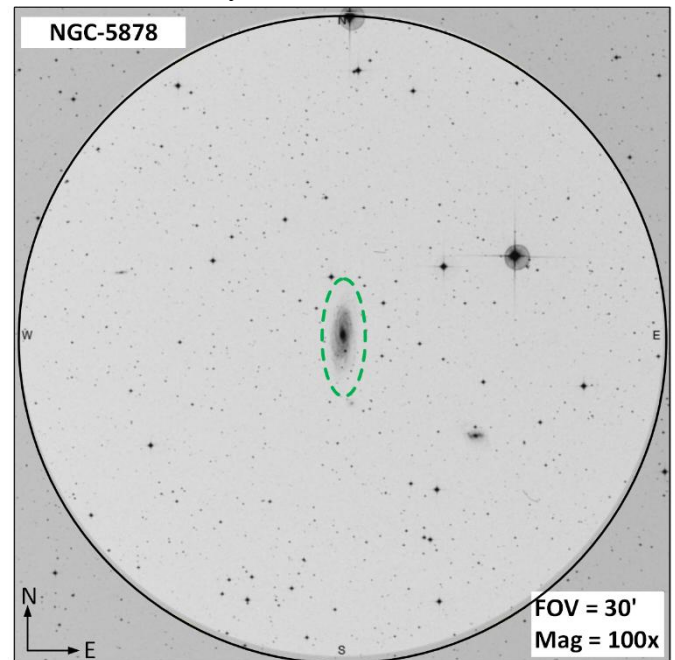
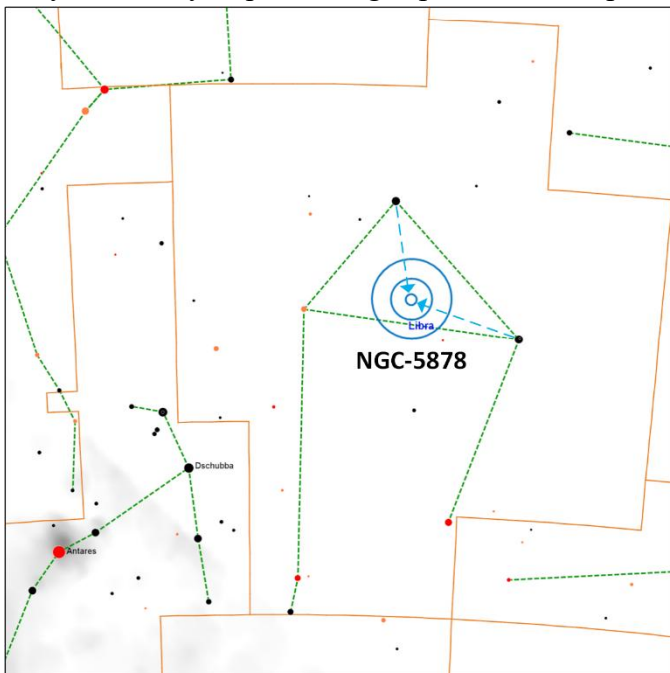


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Zubeneschamali (VS | M= 2.6 | Color=Greenish | Spec=B8V) The brightest star in Libra (even though it was given the β designation, leading one to think it was the 2nd brightest star in Libra), this star is known as one of the few naked eye stars that have a greenish tint to it. The star is located 185 light years away.

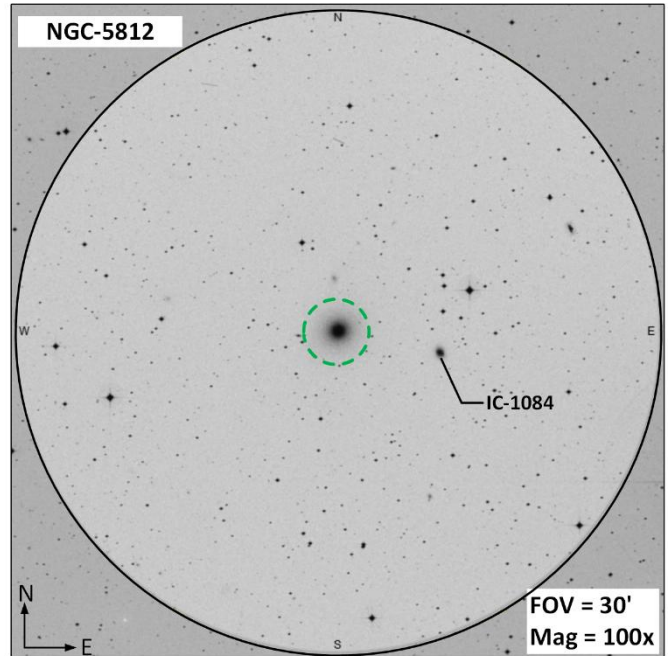
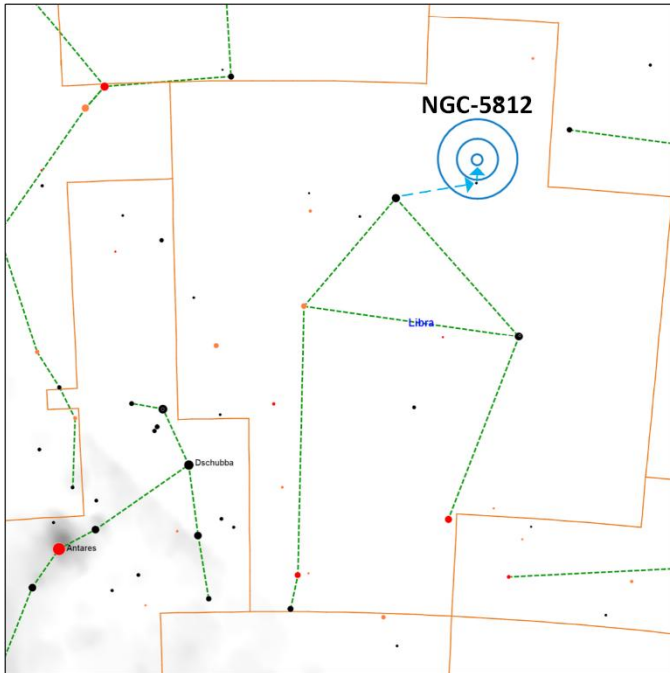


NGC-5878 (G | M=11.5 | Size= 3.5'x1.4' | SB=21.9 | MC=Sb) Located 99 million light years away, this galaxy will likely require a large aperture telescope and dark skies to see any detail.

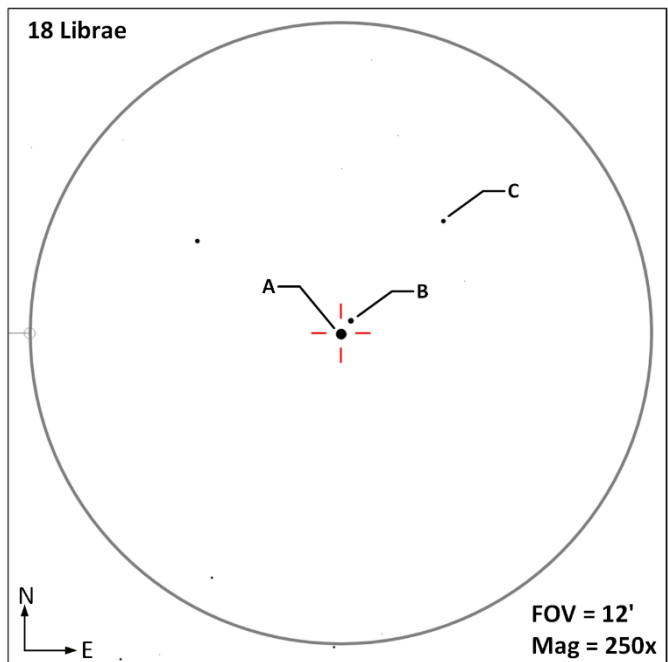
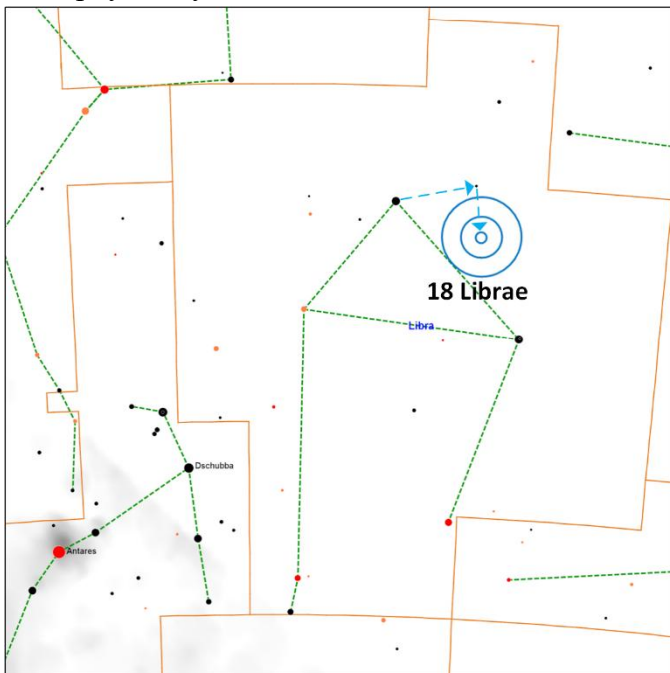


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NGC-5812 (G | M=11.2 | Size=2.3'x2.0' | SB=21.5 | MC=E1 |) Located 90 million light years away, this elliptical galaxy looks round in an 8" telescope.

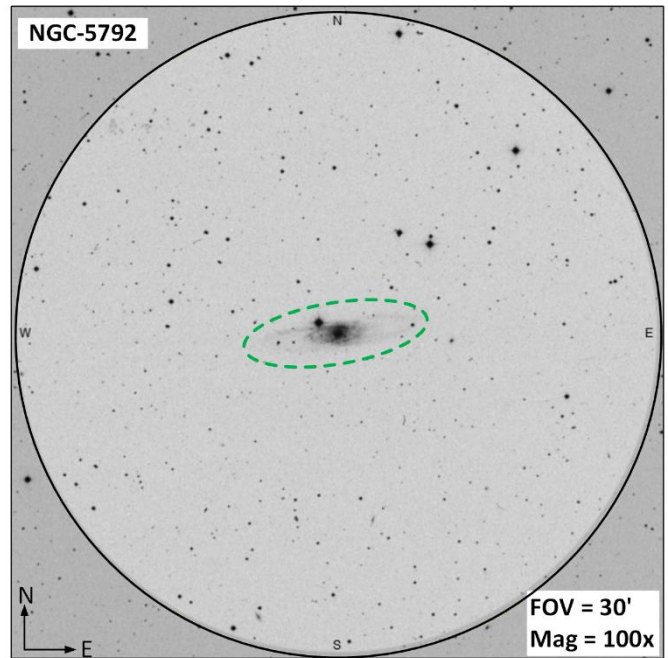
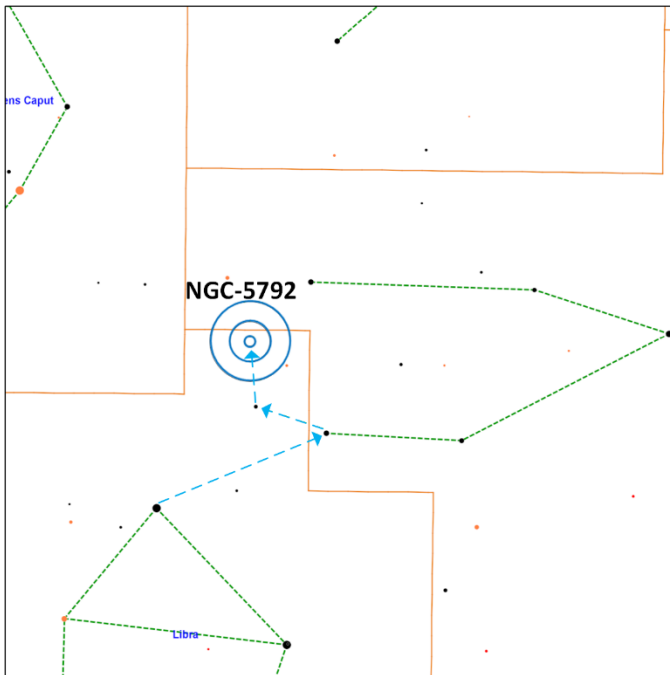


18 Librae (MS-3 AB | M=6.0, 9.8 | Sep=19.9" | PA=38° | Color= Yellow-Orange | Spec=K2III-IV || AC | M=6.0, 11.4 | Sep=175" | PA=42°) It is suspected that this is an optical multiple star system, where the stars are not physically associated with each other.

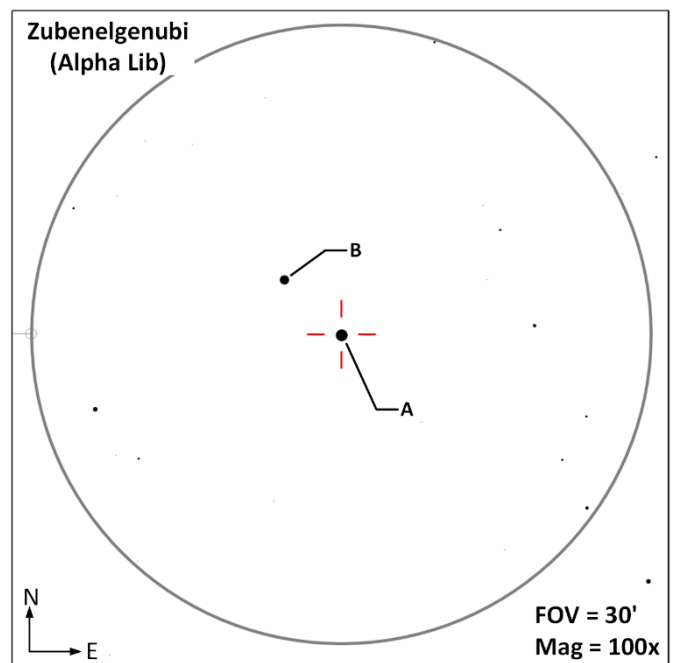
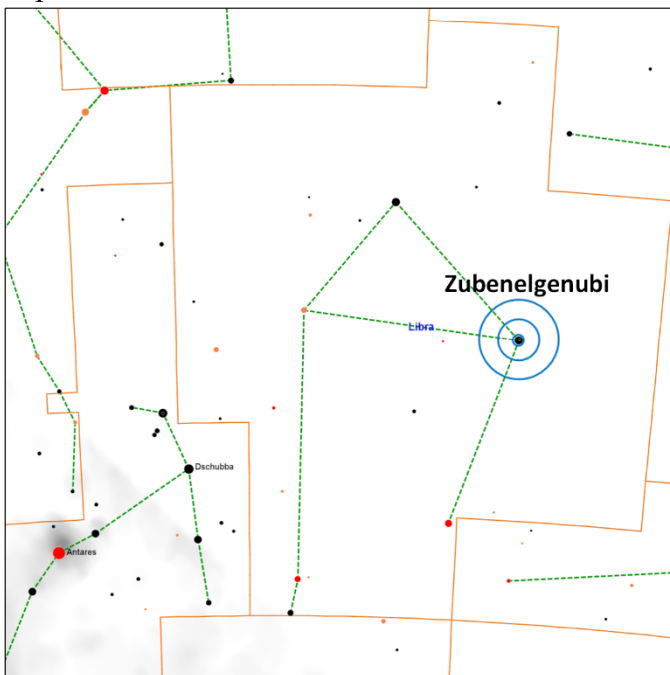


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NGC-5792 (G | M=12.1 | Size=6.9'x1.7' | SB=23.4 | SB=SAB(rs)b |) Located 70 million light years away this may be the finest galaxy for viewing in the Libra constellation. The galaxy appears elongated since it is viewed at an inclined angle. Still a 13" telescope only shows a faint nucleus and hints of the remaining galaxy.

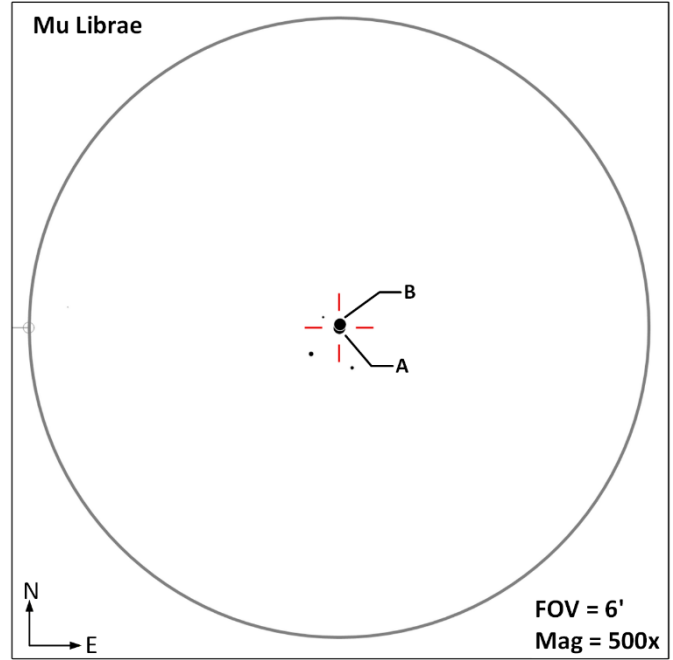
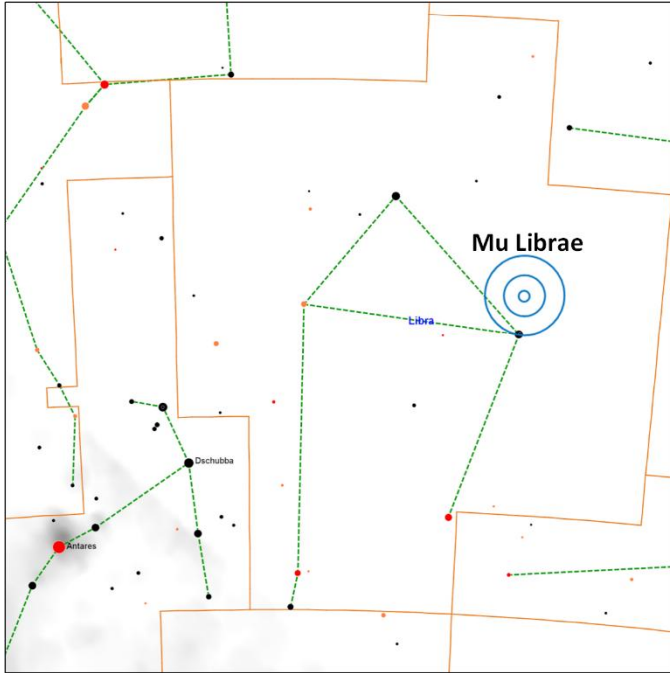


Zubenelgenubi (DS AB | M=2.7, 5.2 | Sep=231" | PA=314° | Color=White, Yellow-White | Spec= A3IV, F4IV |) Technically this is a quadruple star system where the two components α^1 Librae (B component) and α^2 Librae (A component) are [spectroscopic binaries](#). Oddly, α^2 is the brighter of the pair and considered the A component.



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Mu Librae (DS AB | M=5.6, 6.6 | Sep=1.9" | Period = 614 y | PA=8.4° | Color= White, White | Spec=A1pSrCrEu) A close pair of stars requiring an aperture of 75mm of aperture to resolve. This system is located 238 light years away with an estimated period of 614 years.



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Observation Log: Libra (Lib)

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

Notes: _____

Date	Time	Config	Target	Notes

Date	Time	Config	Target	Notes

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Observation Log: Libra (Lib)

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](#)
 - Star Clusters: Bret Archinal, Steve Hynes
 - [Sky Spot](#) Books
 - Bright Telescopic Objects: Brent Watson
 - Select Double Stars: Brent Watson
 - Overlooked Objects: Brent 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