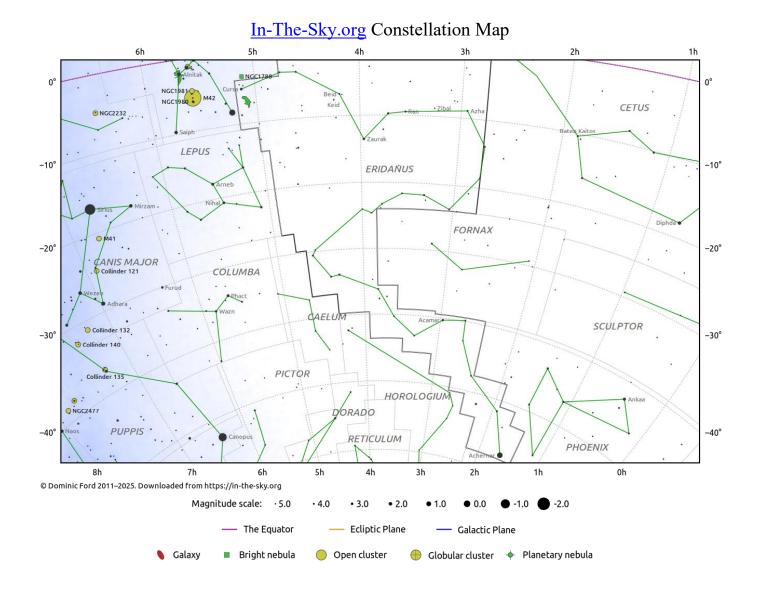
# Eridanus (Eri)

**Evening Visibility: October - December** 

Online Information: **Eridanus**More Online Information: **SY** Eri

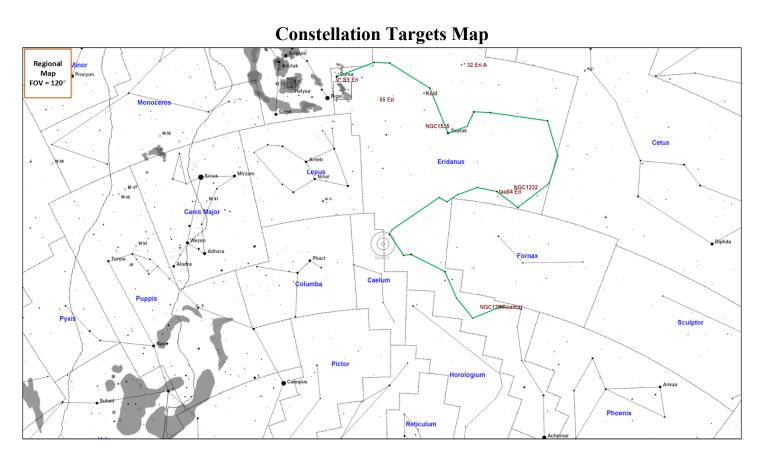
, 55 Eri, Keid, NGC-1535, 32 Eri, Tau4 Eri, NGC-1232, Acamar, NGC-1291



Eridanus is the sixth largest constellation. It represents a mythical river that Phaethon fell while trying to drive the chariot of his fathers Helios the sun god. Although the constellation is long and meanders from Taurus in the north to Hydrus in the south, it is often overlooked because is quite faint and has few bright stars. The constellation contains no Messier objects.

#### **Constellation Highlights**

- 32 Eri (MS-3): In the top 22 colorful double star systems list. This is a triple star system.
- **Keid** (MS-3): Triple star system that should be able to separate even in binoculars. Star Trek fans suspect this may be the system of the planet Vulan (however no planets have been discovered in this system).

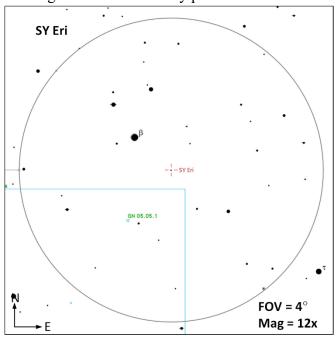


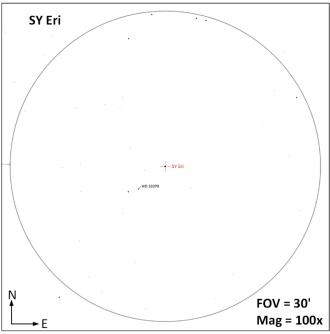
### **Objects Summary**

Object (Type)	Ref	Aliases	Stats
SY Eri (CS)	1	SAO-131832, HIP 24025, HD 33404, CGCS875	Mag Range = 9.0 – 10   Period = 96 days
55 Eri (DS)	1	SAO-131443, HIP 21986, HR 1506, HD 30021, STF 590, ADS 3409, 55 Eridani	<b>AB</b>   M=6.7, 6.8   Sep=9.3"   PA=318 °
Keid (MS-3)	<u>1</u> , <u>2</u>	SAO-131063, HIP 19849, HR 1325, HD 26965, Omicron2 Eridani, Vulcan, 40 Eri, STF 518, ADS 3093, o Eri	<b>A, BC</b>   M=4.4, 9.3   Sep=83"   PA=102°   <b>AC</b>   M=4.4, 11.2   Sep=78"   PA=98 °   <b>BC</b>   M=9.5, 11.2   Sep=7.7"   PA=327°

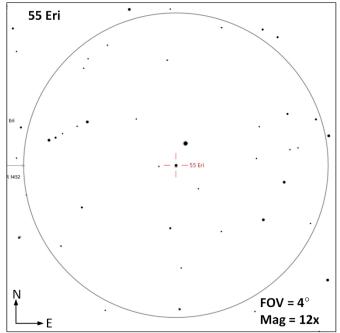
Object (Type)	Ref	Aliases	Stats
NGC-1535 (PN)	1	Cleopatra's Eye, ARO 22, VV 19	M=10.5   Size=0.7' x 0.6'   SB= 18.4
32 Eri (MS-3)	1	SAO-1330806, HIP 18255, HR 1212, HE 24555, STF 470, ADS 2850, w Eri	AB   M=4.8, 5.9   Sep=6.9"   PA=349 °   AC   M=4.8, 10.5   Sep=165"   PA=5 °
Tau4 Eri (MS-3)	<u>1</u> , <u>2</u>	SAO-168460, HIP 15474, HR 1003, HD 20720, 16 Eri, Angetenar, τ Eri	AB   M=3.9, 9.5   Sep=5.8"   PA=290 °   AC   M=3.9, 11.3   Sep=38"   PA=123 °
NGC 1232 (G)	1	PGC 11819, Arp 41, Eye of God Galaxy	M=10.9   Size=7.4' x 6/5'   SB = 23.9
Acamar (DS)	<u>1</u> , <u>2</u>	SAO-216113, HIP 13847, HR 897, HD 18622, θ Eri, Dalim	A, B   M=3.2, 4.1   Sep=8.2"   PA=90 °
NGC 1291 (G)	1	PGC 012209, NGC 1269	M=9.4   Size=9/8' x 8.1'   SB = 23.0

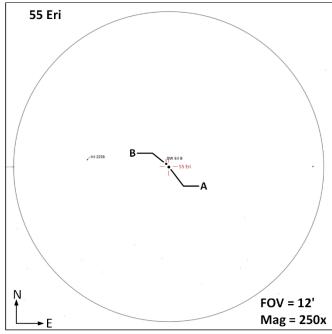
**SY Eri** (CS | Mag Range = 9.0 - 10 | Period = 96 days |) – A carbon star that ranges in brightness from 9.0 - 10.0 magnitude over a 96-day period. Some observers report the star appears pumpkin in color.



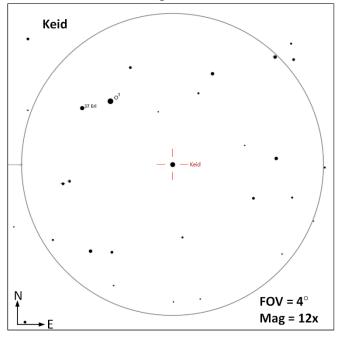


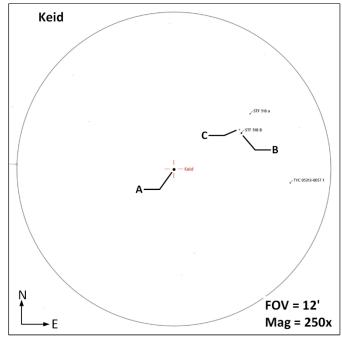
**55** Eri (DS | AB | M=6.7, 6.8 | Sep=9.3" | PA=318 ° |) – This system is noted as another colorful yellow and blue double star system of nearly identical brightness. This system is 2,100 ly from earth.



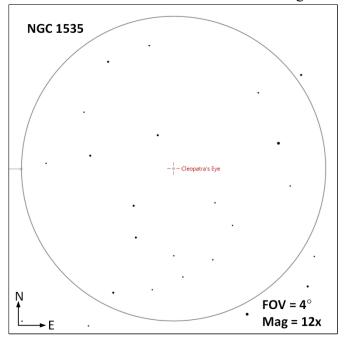


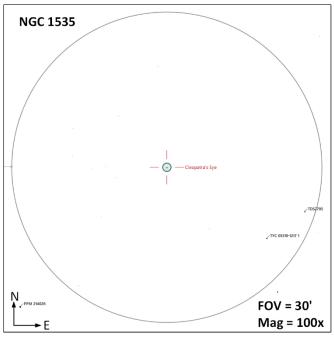
**Keid** (MS-3 **A, BC** | M=4.4, 9.3 | Sep=83" | PA=102° || **AC** | M=4.4, 11.2 | Sep=78" | PA=98° || **BC** | M=9.5, 11.2 | Sep=7.7" | PA=327° |) —The primary is a main sequence star, the B component is a white dwarf, the C component is a red dwarf. The two dwarfs orbit each other every 248 years. The white dwarf is quite dense; 1 cubic inch if this sun weighs two tons. The red dwarf star has 16% of the mass of our sun.



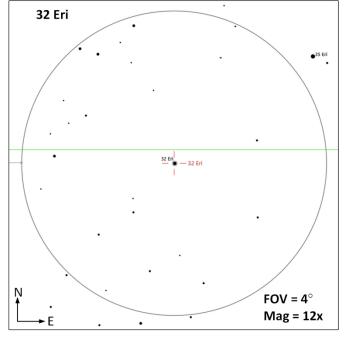


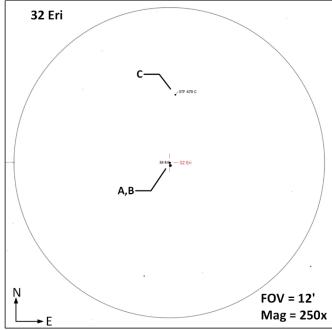
NGC-1535 (PN | M=10.5 | Size=0.7' x 0.6' | SB= 18.4 |) – Cleopatra's Eye is a planetary nebula approximately 5,400 ly from earth. This appears as a small blue disk in most telescopes and has two shells, an inner bright shell 20" with an outer dimmer shell measuring 35".



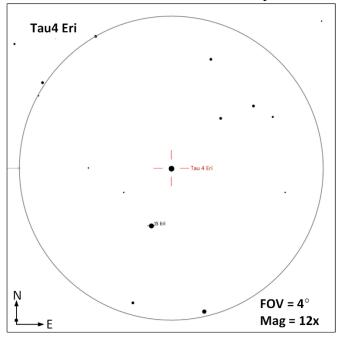


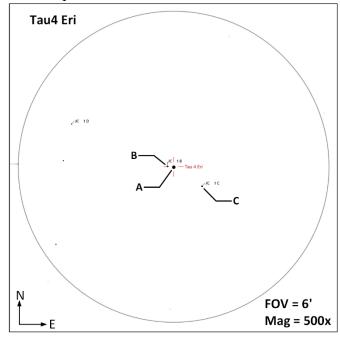
32 Eri (MS-3 AB | M=4.8, 5.9 | Sep=6.9" | PA=349 ° || AC | M=4.8, 10.5 | Sep=165" | PA=5 ° |) — Appears on the "22 Best Colored Double Stars" list, reportedly topaz-yellow and sea-green components. It is not currently known if the AB components are actually physically associated with each other. Research indicates the C component is not associated with the system.



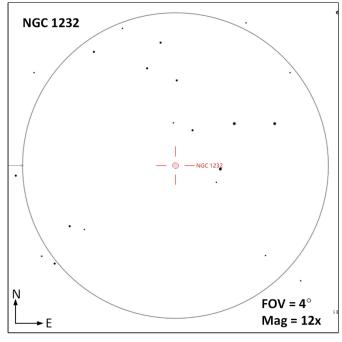


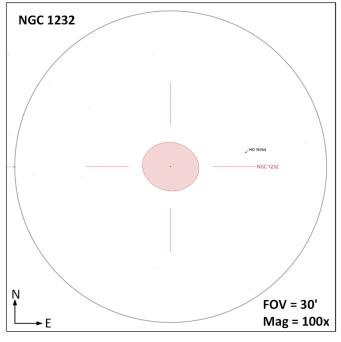
**Tau4** Eri (CS, MS-3 AB | M=3.9, 9.5 | Sep=5.8" | PA=290 ° || AC | M=3.9, 11.3 | Sep=38" | PA=123 ° |) – Located about 305 ly from earth. The A component is a carbon star; It is uncertain if the AB components are associated with each other and the C component is an optical companion.



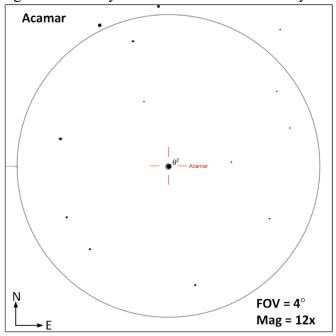


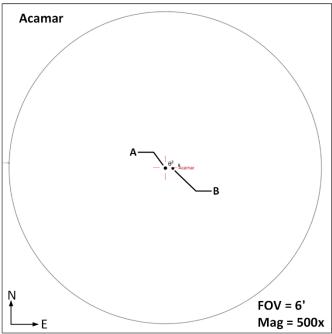
NGC 1232 (G | M=10.9 | Size=7.4' x 6/5' | SB = 23.9 |) – The Eye of God Galaxy is located 61 million light years away and 150,000 ly across.



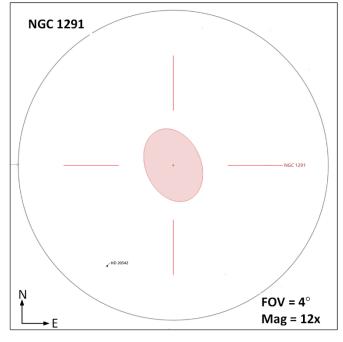


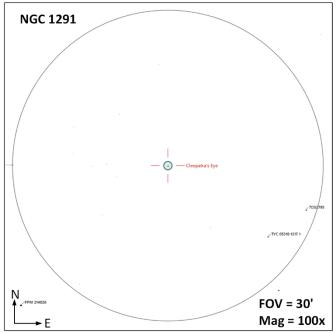
**Acamar** (DS **A**, **B** | M=3.2, 4.1 | Sep=8.2" | PA=90 ° |) – Listed in the "100 Showpiece Doubles" list. Also known as one of the gems of the southern sky. There is conflicting information as to if the A & B components are physically associated with each other. Both components appear white when viewing and are close in brightness. The system is estimated to be 164 ly from earth.





NGC 1291 (G | M=9.4 | Size=9/8' x 8.1' | SB = 23.0 |) – Known as a ring galaxy with an outer ring structure. The galaxy is located about 33 million ly away. This galaxy is a face-on galaxy with a prominent buldge.





#### References, Resources and Tools used to create this document

The resources listed below were utilize to generate this document.

#### References

- Books
  - Objects in the Heavens: Peter Birren
  - o <u>Touring the Universe through Binoculars</u>: Philip Harrington
  - o The Deep Sky: 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
  - o Asterisms List
  - o 110 Best of the NGC
  - 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
- <u>Cartes du Ciel</u> Version 4.3
- Sky Safari Pro 7
- Microsoft Office Home and business 2021 Word
- Microsoft Visio Professional 2021
- IrfanView Version 4.72