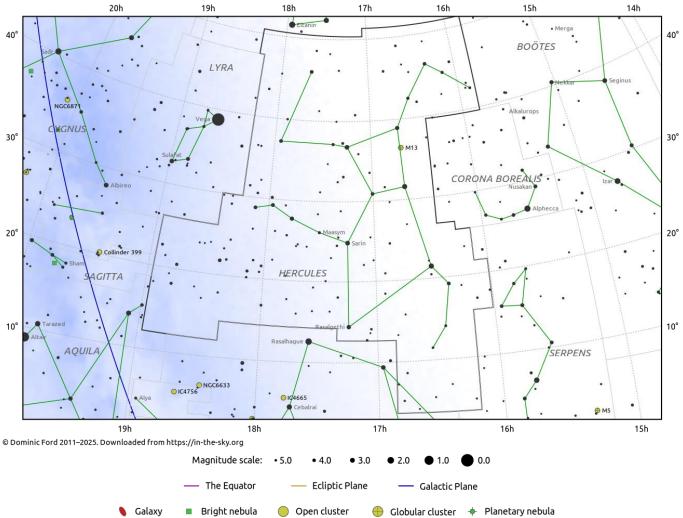
# Hercules (Her)

Evening Visibility: **May - July** Online Information: **Hercules** 

More Online Information: Rho Her, M-13, NGC-6207, Messier-92, Marsic, STAR-07, NGC-6210, 56 Her,

Sarin, Rasalgethi, 95 Her, STAR-24

# <u>In-The-Sky.org</u> Constellation Map

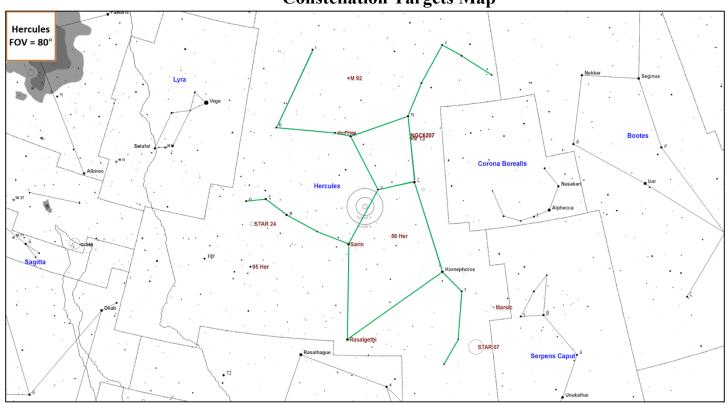


Hercules is the fifth largest constellation in the sky and is named after the hero in Greek mythology. Hercules is positioned at the head of the constellation Draco, the mythical dragon Hercules was tasked to kill in his adventures. Hercules is the home to three globular clusters, Messier 13 being the most famous and the most celebrated globular cluster in the northern hemisphere. While Messier 92 isn't as popular it is also an exceptional globular that should not be missed.

#### **Constellation Highlights**

- Messier 13 (GC) Best globular cluster in the northern hemisphere.
- Messier 92 (GC) Another excellent globular cluster.
- Marsic (MS-3) An excellent triple star system.

**Constellation Targets Map** 

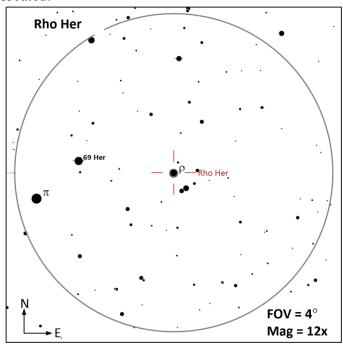


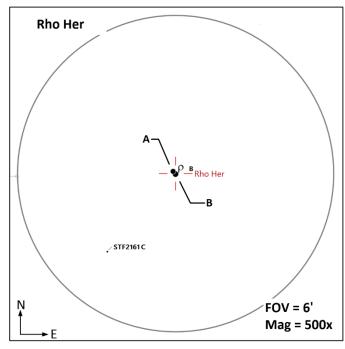
### **Objects Summary**

Object (Type)	Ref	Aliases	Stats
Rho Her (DS)	<u>1, 2</u>		<b>AB</b>   M=4.5, 5.4   Sep=4.0"   PA=321°
		HD-157778, STF-2161, ρ Her, 75 Her	
M-13 (GC)		NGC-6205, Great Hercules Cluster	M = 5.8   Size = 20'   SB = 21.7
NGC-6207 (G)		UGC-10521, PGC-58827	$  M = 11.7   Size = 3 \times 1.2'   SB = 22.6  $
M-92 (GC)		NGC-6341	M = 6.4   Size = 14'   SB = 21.4

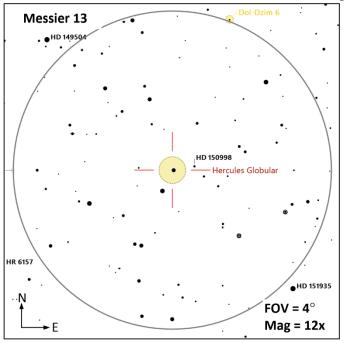
Object (Type)	Ref	Aliases	Stats
Marsic (MS-3)	<u>1</u> , <u>2</u>	SAO-101951, HIP-79043, Kappa Her, 7	<b>AB</b>   M=5.1, 6.2   Sep =27"   PA=14°
		Her, HR-6008, HD-145001, κ Her, Marfik,	AC   M=5.1, 13.4   Sep=63"   PA=212°
		Maasym	AB is Optical, AC is physical
STAR-07 (AS)	<u>1</u>	Zig Zag, Wiggly line of 8 <sup>th</sup> & 9 <sup>th</sup> Mag stars	M=8   Size = 96' x 15'
, ,	_		SAO-102069, HIP 88348, HIP-79858
NGC-6210 (PN)	<u>1</u>	Turtle Nebula, ARO 5	M = 9.0   Size = 0.2'   SB = 14.1
56 Her (DS)	1	SAO-084692, HIP 82780, HR 6292, HD	<b>AB</b>   M=6.1, 10.8   Sep=18"   PA=91.6°
, ,	_	152863, STF 2110, ADS 10259	
Sarin (MS-4)	<u>1</u> , <u>2</u>	SAO-084951, HIP-84379, Delta Her, 65	<b>AB</b>   M=3.1, 8.3   Sep =14"   PA =291°
		Her, HR-6510, HD-156164	AC   M=3.1, 10.4   Sep=174"   PA=353°
			<b>AD</b>   M=3.1, 10.6   Sep=193"   PA=90°
			(Optical system no stars related)
Rasalgethi (CS, DS)	<u>1, 2</u>	SAO-102680, HIP-84345, Alpha Her, 64	<b>AB</b>   M=3.5, 5.4   Sep=5"   PA=231°
		Her, HR-6406, HD-156014, α Her	
95 Her (CS, DS)	<u>1</u> , <u>2</u>	SAO-085648, HIP-88267, HR-6730, HD-	<b>AB</b>   M=4.8, 5.2   Sep=6.4"   PA=255°
		164669, STF-2264, ADS-10993	
STAR-24 (AS)		Ruby Ring	Size = 25'
			Ref Star: SAO-085678

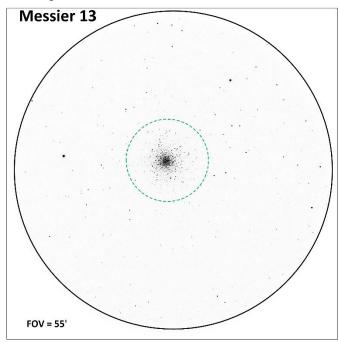
**Rho Her** (DS | AB | M = 4.5, 5.4 | Sep = 4.0" | PA = 321° |) – This is a double star system. The primary star is actually also a double, but with a separation 0.3" will not be resolved in most telescopes. This star is located right next to Pi Herculis, one of the four stars forming the keystone of Herculis so should be pretty easy to located.



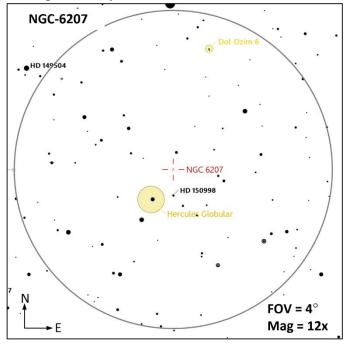


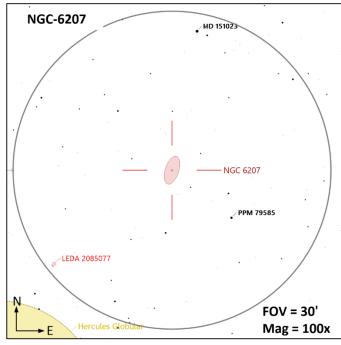
Messier 13 (GC | M = 5.8 | Size = 20' | SB = 21.7 |) – The Great Hercules Cluster is the best globular cluster in the northern hemisphere this globular is a great target for binoculars and telescopes. Located 2/3 between Eta Her and Zeta Her, the two stars that form the west edge of the square of Hercules.



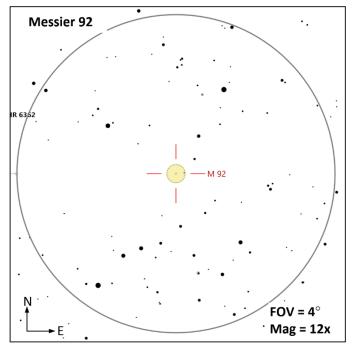


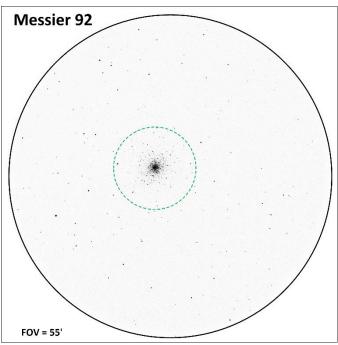
**NGC-6207** (G | M = 11.7 | Size = 3 x 1.2' | SB = 22.6 |) – A pretty dim small galaxy, but place within  $\frac{1}{2}$ ° northeast of M-13 it is worth checking to see if you can locate this galaxy. Most likely only visible in larger telescopes or very dark skies.



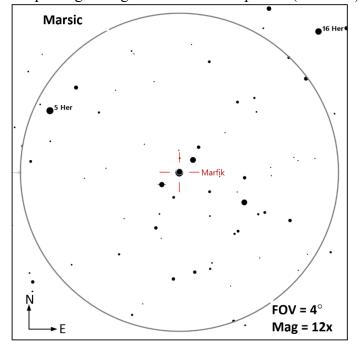


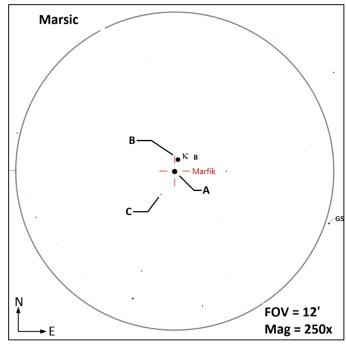
**Messier 92** (GC | M = 6.4 | Size = 14' | SB = 21.4 |) — While not as popular as M 13 this is another very nice globular cluster a bit smaller than M-13. This is still a nice globular. M-92 can be located by forming a triangle between it and Rho Her with Eta Her.



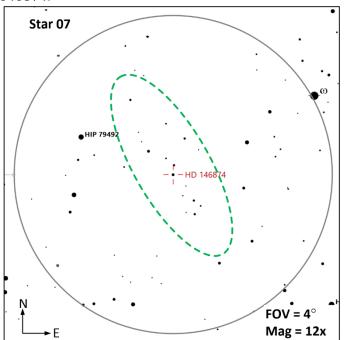


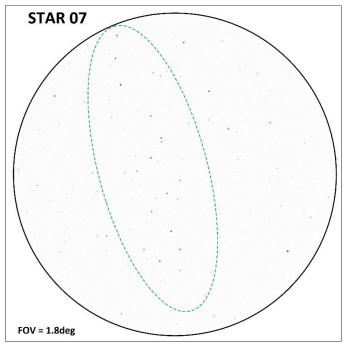
**Marsic** (MS-3 **AB** | M=5.1, 6.2 | Sep =27" | PA=14° || **AC** | M=5.1, 13.4 | Sep=63" | PA=212° |) – Kappa Herculis is classified as a multiple star system with three components. However, the AB component is an optical double while the AC component is a physical pair. Locate this star system by extending an imaginary line passing through Sarin and Komephoros (Beta Her) about 7°.



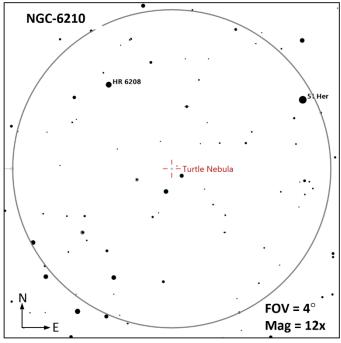


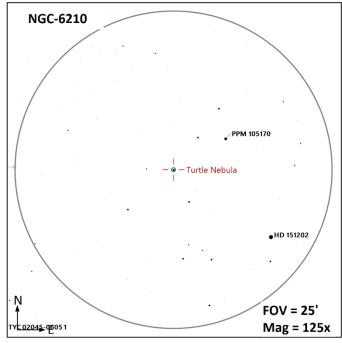
**STAR-07** (AS | M=8 | Size = 96' x 15' |) – Also known as "Zig Zag", a wiggly line 7 stars of magnitudes ranging between 8 and 9. This asterism is just north of the intersection between the two extended lines formed from (Cebalrai and Kappa Oph) and (Zeta Her and Komephoros). Ref Star = SAO-102069, HIP-79858, HD-146874.



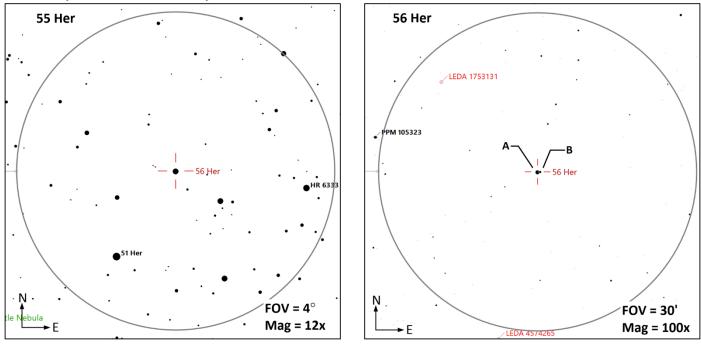


**NGC-6210** (PN | M = 9.0 | Size = 0.2' | SB = 14.1 |) – The Turtle nebula should appear as a blue-green disk in most telescopes. The planetary nebula is 6500 ly from earth.

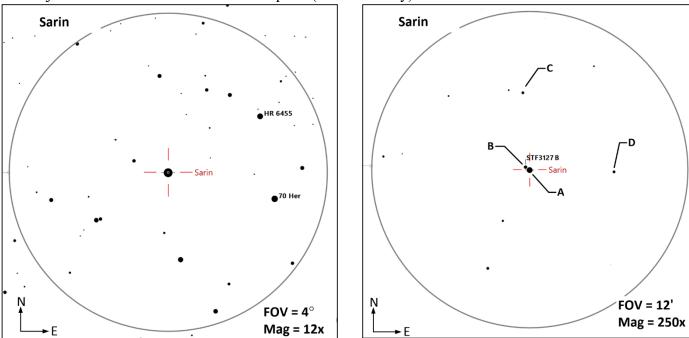




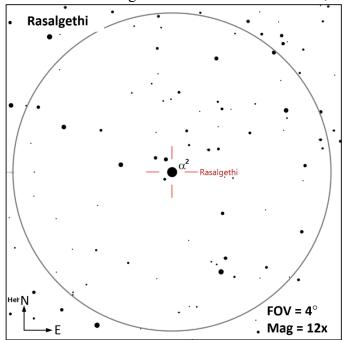
**56 Her** (DS **AB** | M = 6.1, 10.8 | Sep = 18.0" | PA = 91.6° |) – The primary is orange with a greenish secondary. This star system is located 450 ly from earth.

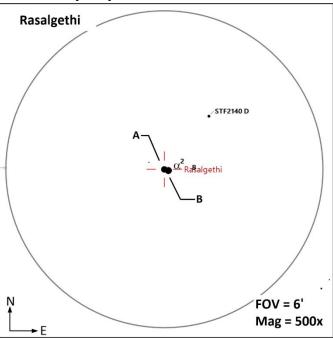


**Sarin** (MS-4 **AB** | M=3.1, 8.3 | Sep =14" | PA =291° || **AC** | M=3.1, 10.4 | Sep=174" | PA=353° || **AD** | M=3.1, 10.6 | Sep=193" | PA=90° |) – Delta Herculis is a five-star system. The primary component has close companion that will not be able to be resolved in most telescopes that is a binary system; this pair is notated as Aa, Ab. Further away are the B, C, & D components, it is believed these are optical companions. Easily located just of the four stars that form the square (the main body) of Hercules.

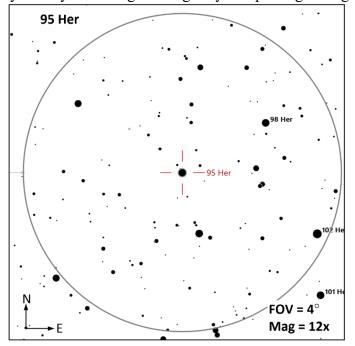


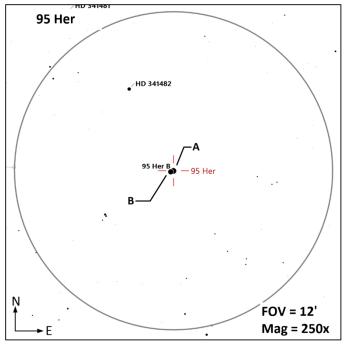
**Rasalgethi** (CS, DS **AB** | M = 3.5, 5.4 | Sep = 5" | PA =  $231^{\circ}$  |) – Alpha Herculis is the brightest star in the Hercules constellation. The primary component is a variable star ranging in brightness from 2.7 to 4.0 magnitude. These two stars are more than 500 AU apart with an estimated orbital period of 3,600 years. This star is one of the brighter stars in this constellation, so should be fairly easy to locate.



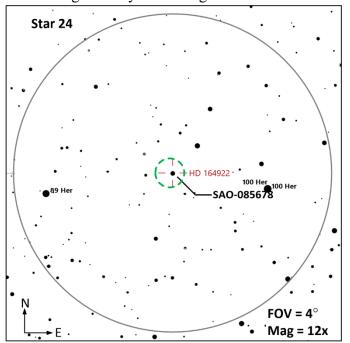


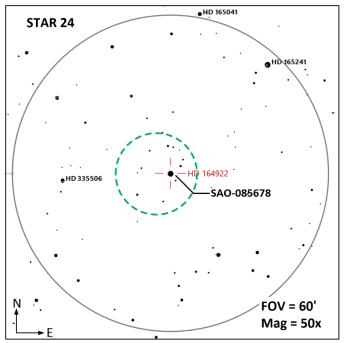
**95 Her** (CS, DS **AB** | M = 4.8, 5.2 | Sep = 6.4" | PA = 255° |) – Also called Bodu, this is a popular double star system with some reporting the primary as having a green tint with a red tint companion. Locate this star system by extending an imaginary line passing through Rho Her and Mu Her about  $7^{\circ}$ .





**STAR-24** (AS | Size = 25' |) – Also known as "Ruby Ring", this asterism is roughly oval in shape with a red star forming the ruby of the ring.





#### 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 Touring the Universe through Binoculars: Philip Harrington
  - o The Deep Sky: Philip Harrington
  - o <u>Double and Multiple Stars and How to Observe Them:</u> James Mullaney
  - o Sky Spot Books
    - Bright Telescopic Objects: Brent Watson
    - Select Double Stars: Brent Watson
    - Overlooked Objects: Bret Watson
- Asterisms
  - o Astronomical League: Asterisms observing program 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
- 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