

Constellation Guide

Constellation: Ophiuchus (Oph)

Evening Visibility: **May – July**

Opposition: June

Latitude Visibility: **+80° to -80°**

Online Information: | [In-The-Sky.org](https://www.in-the-sky.org) | [Constellation Guide.com](https://www.constellation-guide.com) |

Constellation Targets

- **Region 1, Lower Constataion Targets:** [Rho Oph](#), V Oph, [M-107](#), B-44, NGC-6235, [M-62](#), [M-19](#), [NGC-6284](#), [NGC-6287](#), [NGC-6293](#), [B-59](#), [NGC-6309](#), [NGC-6304](#), [36 Oph](#), [NGC-6316](#), B-64, [NGC-6325](#), [Omicron Oph](#), [M-9](#), [NGC-6342](#), [B-68](#), B-70, [B-72](#), [NGC-6356](#), [NGC-6355](#), TR-26, [NGC-6369](#), TW Oph, [B-78](#), [NGC-6401](#)
- **Region 2, Upper Constataion Targets:** [M-12](#), [M-10](#), [NGC-6366](#), [Rasalhague](#), [M-14](#), [NGC-6426](#), [IC-4665](#), CR-350, [Barnard's Star](#), [67 Oph](#), CR-359, NGC-6517, [Tau Oph](#), [Bull of Poniatowski](#), [70 Oph](#), [NGC-6572](#), [NGC-6633](#), TY Oph

Mythology/Back Story

This constellation is commonly associated with Asclepius, the son of Apollo who was raised by Chiron, a wise centaur, and learned how to bring people back to life. from a snake (Serpens). Asclepius eventually was struck down by Zeus because Hades complained to Zeus that he was worried that the flow of souls to the underworld would dry up if Asclepius could bring man back to life. After striking down Asclepius, Zeus placed Asclepius into the sky to honor him.

Rho Ophiuchi Cloud Complex

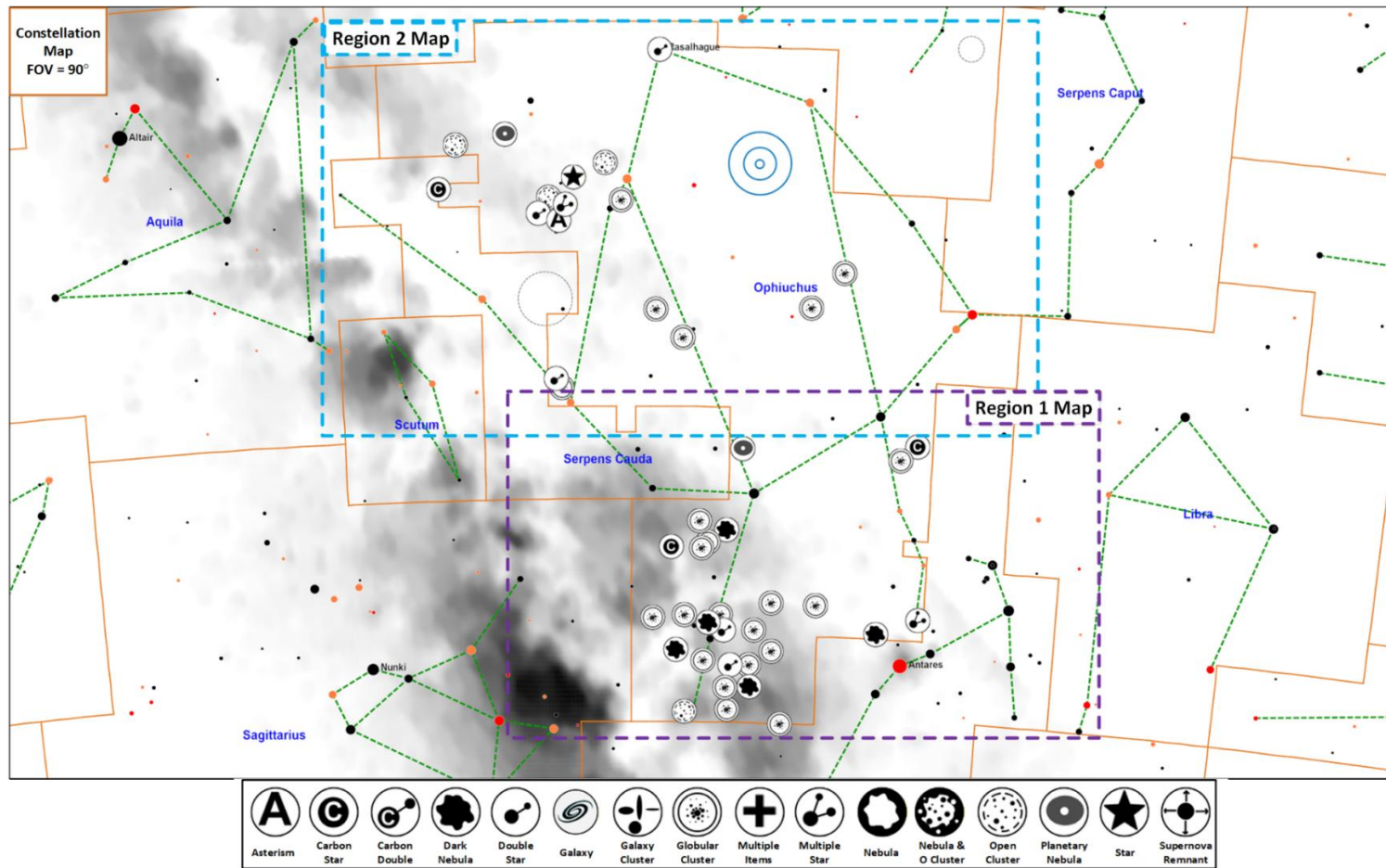
A complex star forming region in our sky covering an angular area of 4.5° x 6.5° and spanning multiple constellations. located 460 light years away, this is one of the closest star-forming regions to earth. This complex contains two major regions of dense gas and dust and is estimated to have about 3,000 solar masses in material. This is a region of star formation where over 400 protostars have been identified.

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Constellation Highlights

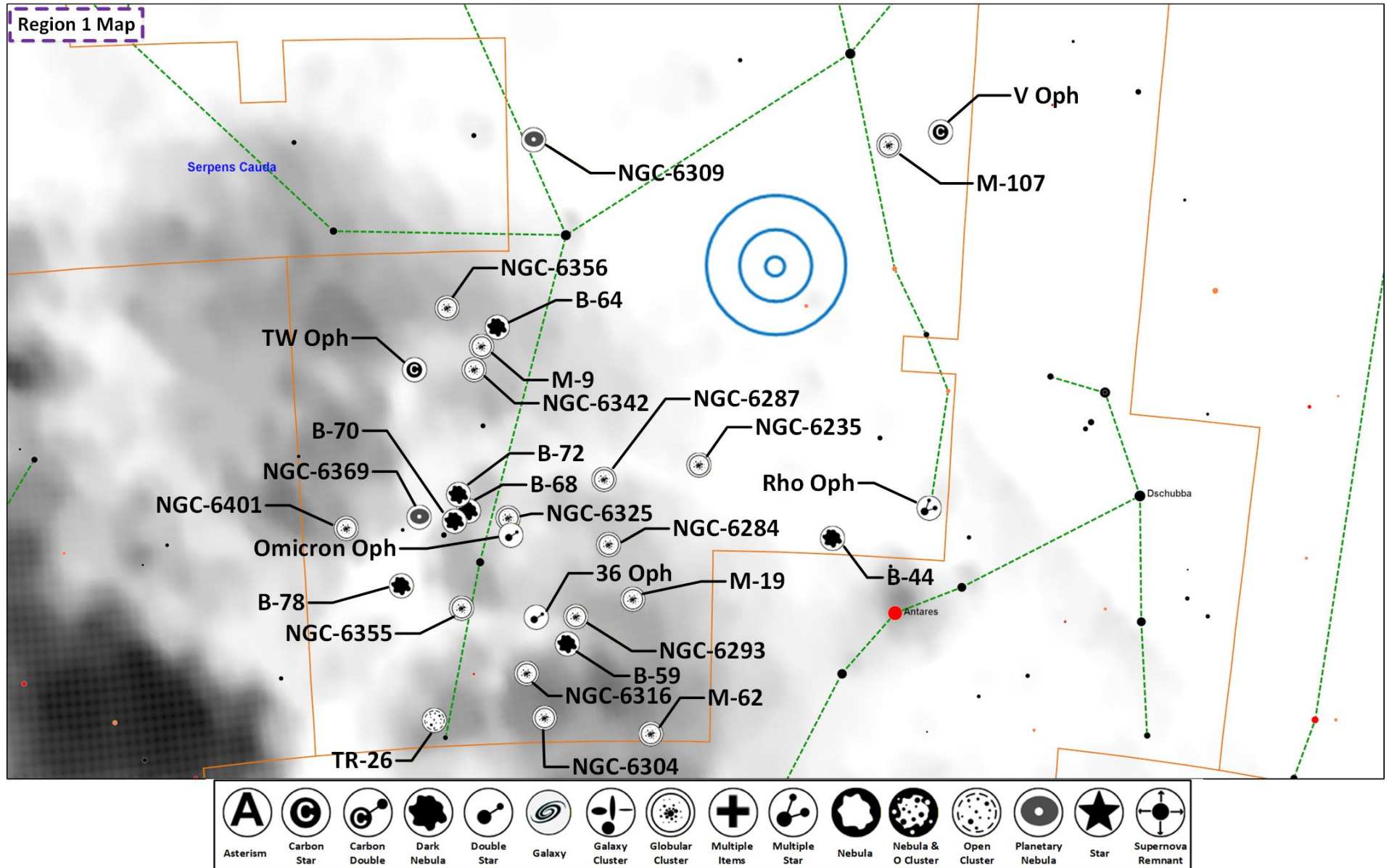
There are many objects in this constellation including 16 globular clusters with magnitude greater than 10th magnitude. This is due to the fact that this area of sky is looking just over the galaxy center in the area where globular clusters are known to swarm.

- **67 Oph** (MS-5) – Nice system with many components
- **TY Oph** (CS) – Dark orange to red star
- **M-10** (GC) – One of the brighter GC in Ophiuchus
- **Omicron Oph** (DS) – A colorful Double star system
- **70 Oph** (DS) – Colorful double.
- **M-19** (GC) – A rare oblong globular
- **NGC-6633** (OC) – A nice open cluster



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Region 1: Lower Constellation Targets



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Object (Type)	Links	Gear	Aliases	Stats
Rho Ophiuchi (MS-5)	1 , 2	B, T	SAO-184382; HIP 80473; 5 Oph; HR 6113; HD 147934; ADS 10045; WDS 16256-2327; STF 2166	AB Mag=5.1,5.7 Sep=3" PA=335° mBortle=9 mApt=50mm Period=2400y Spec=B2/3V, B2V Color=blue-white, blue-white AC Mag=5,7.3 Sep=151" mBortle=9 mApt=50mm Spec=B2/3V, B5V Color=blue-white, blue-white AD Mag=5,6.8 Sep=156" PA=253° mBortle=9 mApt=50mm Spec=B2/3V, B3/4V Color=blue-white, blue-white CF Mag=5.8,11.7 Sep=4.8" PA=207° mBortle=9 mApt=102mm Spec=B5V, ? Color=blue-white, ?
V Ophiuchi (CS)		B, T	SAO-159916; HIP 80550; V Oph, BD-12 4510; HD 148182; HDS 2325; WDS 16267-1226; TYC 5634-0769-1	Magnitude Range= 7.3 to 8.9 Period=8.1y Spec=C5,2-C7,4e (C-N:4) BV=+5.6 Color=deep red
Messier 107 (GC)	1	T	NGC-6171, C 1629-129, GCl 44, Crucifix Cluster	Mag=7.93 Size=13.0' SB=22.1 mBortle=6 mApt=50mm MC=X
Barnard 44 (DN)		B, T	LDN 1712; B-44; FeSt 1-418; IREC 506	Size=90'x09' mBortle=4 mApt=50mm Opacity=5
NGC-6235 (GC)		T	ESO 586-SC5	Mag=9.97 Size=5.0' SB=22.1 mBortle=5 mApt=70mm MC=X
Messier 62 (GC)	1	B, T	M-62; Flickering Globular; NGC-6266; ESO 453-SC14; C 1658-300; GCl 51	Mag=6.45 Size=15.0' SB=21.0 mBortle=9 mApt=50mm MC=IV
Messier 19 (GC)	1	B, T	M-19; NGC-6273; ESO 518-SC7; GCl 52	Mag=6.77 Size=17.0' SB=21.6 mBortle=7 mApt=50mm MC=VIII
NGC 6284 (GC)	1	T	Mel 162; GCl 53; ESO 518-SC9; 2MASX J17042874-2445512	Mag=8.83 Size=6.2' SB=21.4 mBortle=7 mApt=50mm MC=IX
NGC 6287 (GC)	1	T	Mel 163; GCl 54; ESO 518-SC10	Mag=9.35 Size=4.8' SB=21.4 mBortle=7 mApt=50mm MC=VII
NGC 6293 (GC)	1	T	Mel 164; GCl 55; VDBH 215	Mag=8.22 Size=8.2' SB=21.4 mBortle=8 mApt=50mm MC=IV
Barnard 59 (DN)	1	B, T	B-59; LDN 1746; TGU H25 P5; [DB2002b] G357.08+7.19; Pipe Nebula	Size=15' mBortle=4 mApt=50mm Opacity=6
NGC 6309 (PN)	1	T	HD 155752; PK 9+14.1; Box Nebula	Mag=11.5 Size=0.26' SB=17.2 mBortle=9 mApt=70mm MC=Butterfly (quadrupolar)
NGC 6304 (GC)	1	T	GCl 56; Bennett 90; ESO 454-2; ESO 454-SC 002; GC 4275; h 3670; I 147; VDBH 216	Mag=8.2 Size=8.0' SB=21.4 mBortle=8 mApt=50mm MC=VI

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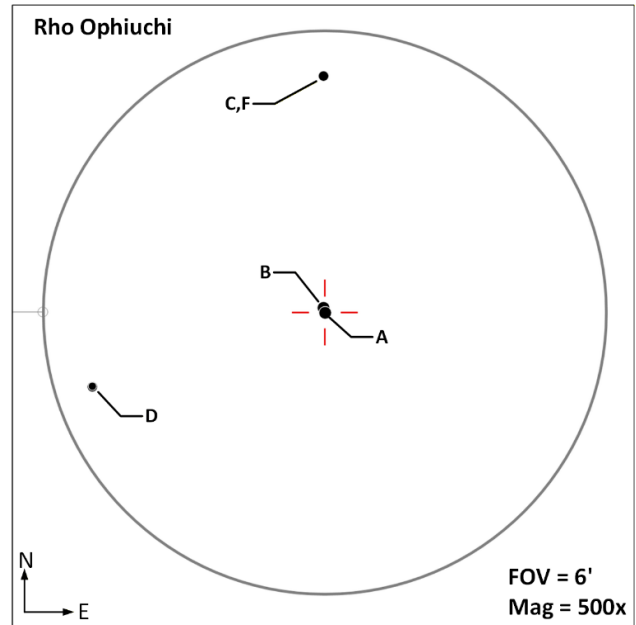
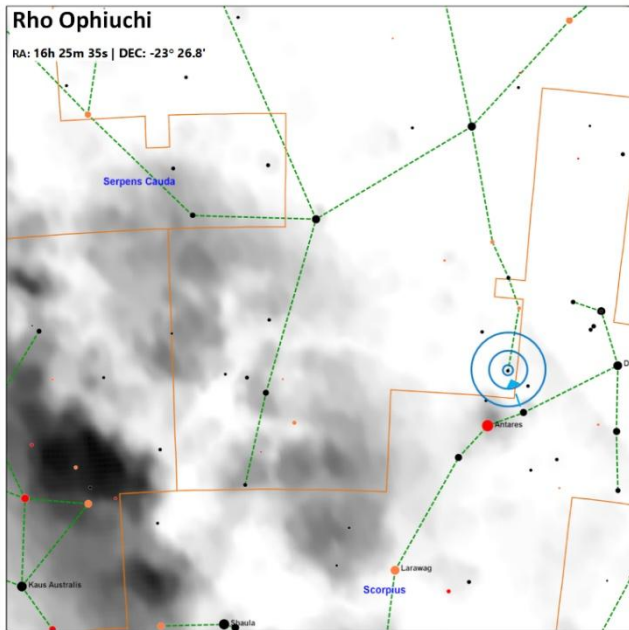
Object (Type)	Links	Gear	Aliases	Stats
36 Ophiuchi (MS-4)	1 , 2	B, T	SAO 185198; HIP 84405; HD 155886; HR 6402; ADS 10417; Guniibuu	AB Mag=5.1,5.1 Sep=5.1" PA=138° mBortle=9 mApt=50mm Period=470.9y Spec=K2V, K1V Color=orange, orange AC Mag=5.1,7.8 Sep=295.0" PA=342° mBortle=9 mApt=50mm AD Mag=5.1,7.8 Sep=295.0" PA=342° mBortle=9 mApt=50mm
NGC 6316 (GC)	1	T	GCl 57; VDBH 219	Mag=8.4 Size=5.4' SB=20.7 mBortle=9 mApt=50mm MC=III
Barnard 64 (DN)		T	B-64; LDN 173	Size=6'x7.8' mBortle=4 mApt=50mm Opacity=6
NGC 6325 (GC)	1		GCl 58; ESO 519-SC11	Mag=10.3 Size=4.1' SB=22.0 mBortle=5 mApt=70mm MC=IV
Omicron Oph (DS)	1 , 2	T	SAO 185237; HIP 84625; o Oph; 39 Ophiuchi; HD 156350; HR 6425; ADS 10442; CD-24°13255; CCDM J17180-2417; WDS J17180-2417	AB Mag=5.2,6.6 Sep=10.7" PA=355° mBortle=9 mApt=50mm Spec=G8III, F6IV-V Color=orange, yellow-white
Messier 9 (GC)	1	T	M-9; NGC-6333; Mel 167; GCl 60; GC 4287; h 1979; h 3677; BD-18 4488; GCRV 9989; FAUST 4082	Mag=7.7 Size=12.0' SB=21.7 mBortle=7 mApt=50mm MC=VIII
NGC 6342 (GC)	1	T	GCl 61; ESO 587-SC6	Mag=9.7 Size=4.4' SB=21.5 mBortle=7 mApt=50mm MC=IV
Barnard 68 (DN)	1	B, T	B-68; LDN 57; [CB88] 82	Size=4' mBortle=4 mApt=60mm Opacity=6
Barnard 70 (DN)		B, T	B-70; LDN 54	Size=3'x1' mBortle=4 mApt=150mm Opacity=4
Barnard 72 (DN)	1	B, T	B-72; LDN 66; Snake Nebula	Size=37'x17' mBortle=4 mApt=50mm Opacity=6
NGC 6356 (GC)	1	T	Mel 171; GCl 62; BD-17 4794	Mag=8.2 Size=10.0' SB=21.9 mBortle=6 mApt=50mm MC=II
NGC 6355 (GC)	1	T	GCl 63; ESO 519-SC15	Mag=9.1 Size=4.2' SB=20.9 mBortle=9 mApt=50mm
Trumpler 26 (OC)		T	Tr-26; Collinder 331; CR-331; Ha15; Lund 753; OC1 1032; C1725-294	Mag=12.0 Size=7' mBortle=? mApt=?mm MC=II2p
NGC 6369 (PN)	1	T	PK 2+5.1; Little Ghost Nebula	Mag=11.4 Size=0.5' SB=18.5 mBortle=9 mApt=70mm MC=Round (bright ring)
TW Ophiuchi (CS)		B, T	TW Oph, HIP85617	Magnitude Range= 4.8 to 12.5 Spec=C5,5 (C-N5) BV=+4.2 Color=deep red
Barnard 78 (DN)	1	B, T	B-78; Prancing Horse; LDN 42; Pipe Nebula (Bowl)	Size=200'x140' mBortle=4 mApt=50mm Opacity=5

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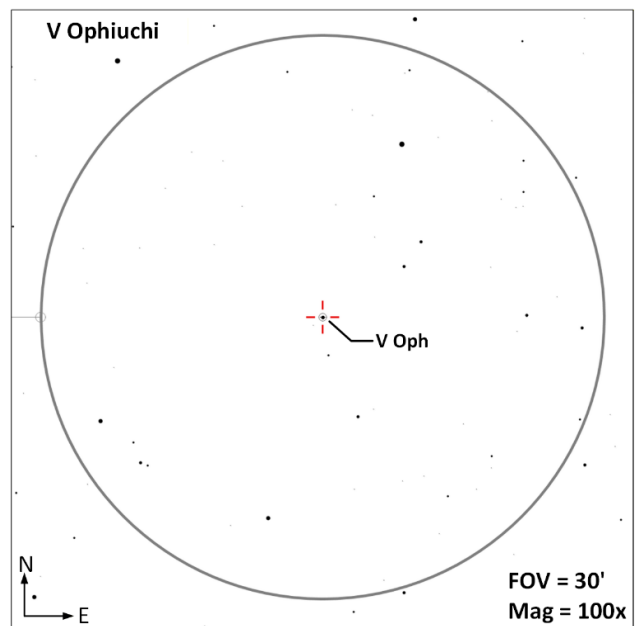
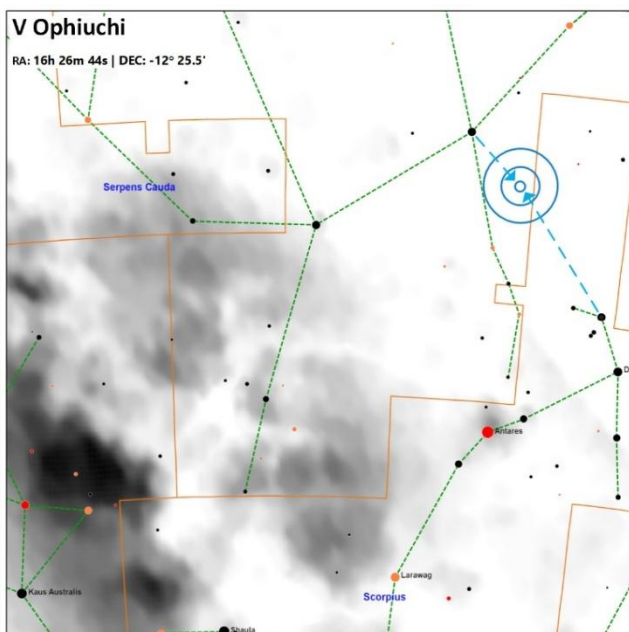
Object (Type)	Links	Gear	Aliases	Stats
NGC 6401 (GC)	1	T	GCl 73	Mag=9.4 Size=4.8' SB=21.5 mBortle=7 mApt=50mm

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Rho Ophiuchi (MS-5 || **AB** | Mag=5.1,5.7 | Sep=3" | PA=335° | mBortle=9 | mApt=50mm | Period=2400y | Spec=B2/3V, B2V | Color=blue-white, blue-white || **AC** | Mag=5,7.3 | Sep=151" | mBortle=9 | mApt=50mm | Spec=B2/3V, B5V | Color=blue-white, blue-white || **AD** | Mag=5,6.8 | Sep=156" | PA=253° | mBortle=9 | mApt=50mm | Spec=B2/3V, B3/4V | Color=blue-white, blue-white || **CF** | Mag=5.8,11.7 | Sep=4.8" | PA=207° | mBortle=9 | mApt=102mm | Spec=B5V, ? | Color=blue-white, ?) This is a five-component star system located 451 light years away. There are a wide range of separations between different components of this system making it a good target for both binoculars and telescopes. This star system resides in the [Rho Ophiuchi cloud complex](#), one of the closest star forming regions to earth.

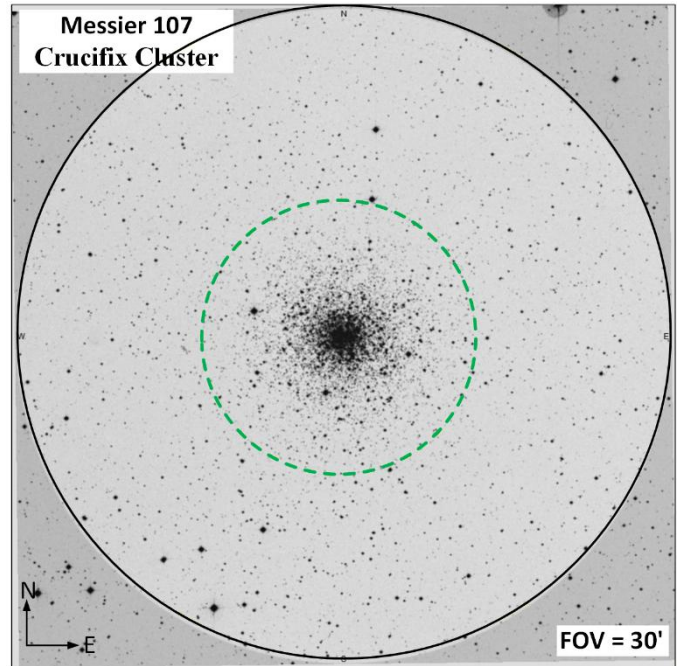
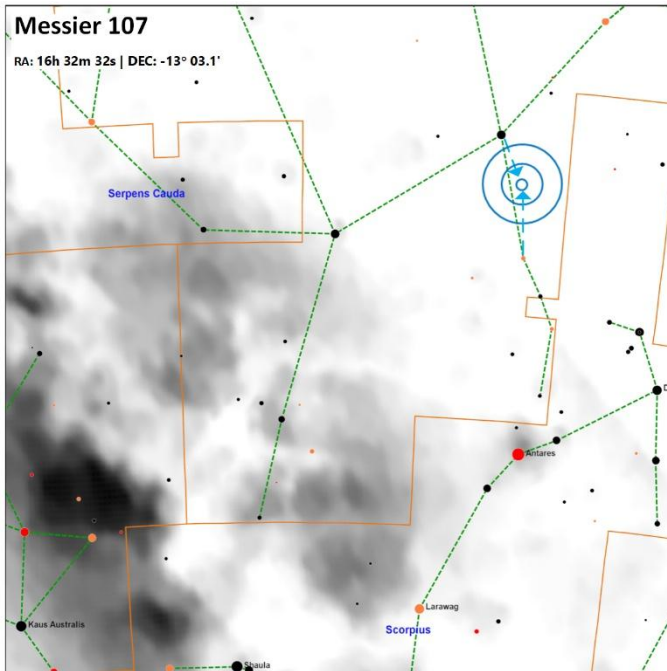


V Ophiuchi (CS || Magnitude Range= 7.3 to 8.9 | Period=8.1y | Spec=C5,2-C7,4e (C-N:4) | BV=+5.6 | Color=deep red) Located 775 light years away, this is a pulsating [Mira-type variable star](#) with a large range in magnitude over a period of about 300 days. Having a B-V color index of +5.6 this should be a distinctive red star.

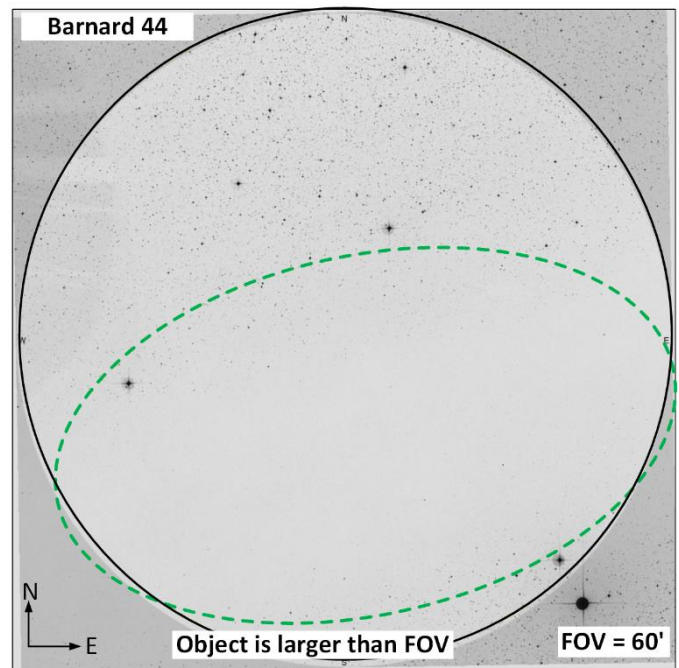
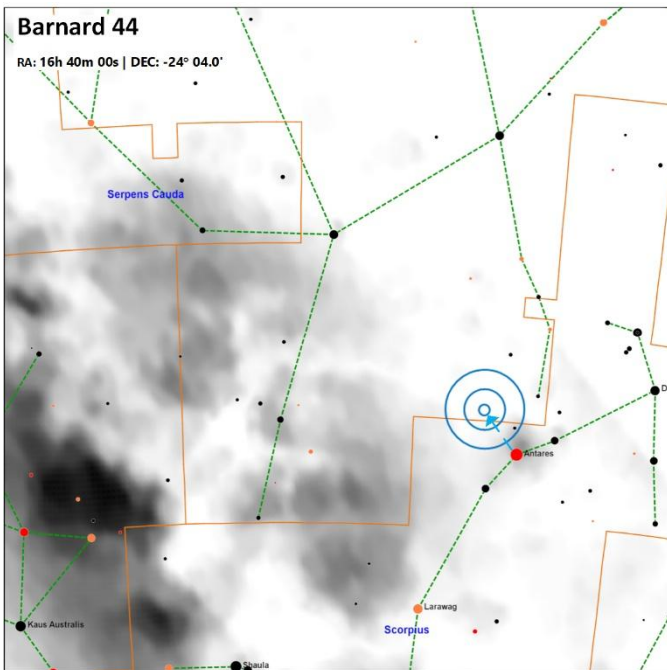


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Messier 107 (GC || Mag=7.93 | Size=13.0' | SB=22.1 | mBortle=6 | mApt=50mm | MC=X ||) This loose globular cluster is located 20,900 light years away with a diameter of 80 light years and estimated population of 50,000 stars. M 107 has been found to contain some dark, obscured regions in studies, an unusual occurrence in globular clusters.

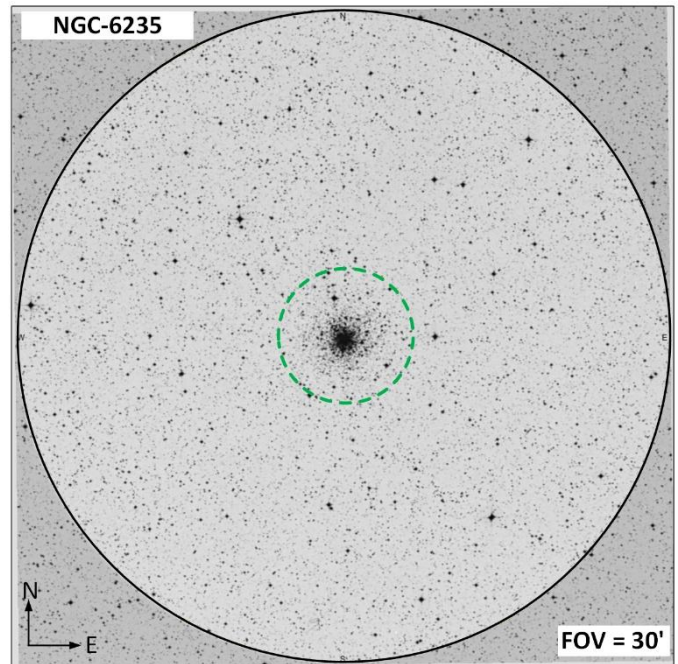
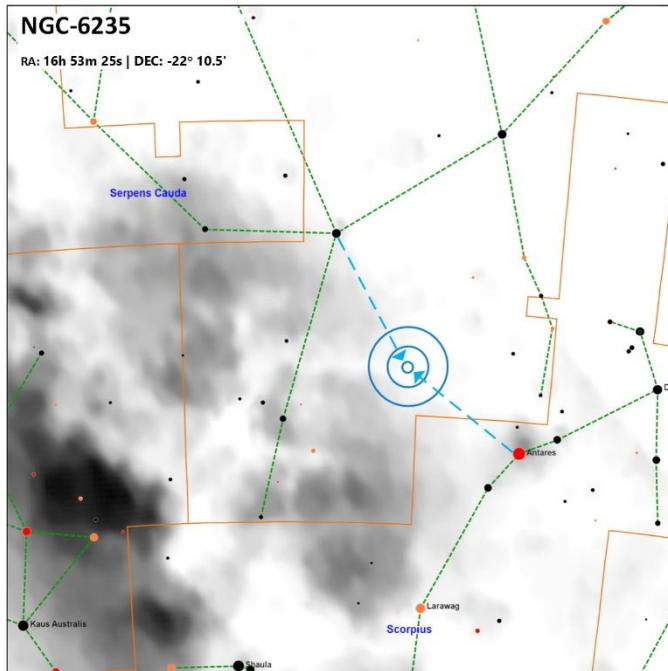


Barnard 44 (DN || Size=90'x09' | mBortle=4 | mApt=50mm | Opacity=5 ||) A dark nebula located in the [Rho Ophiuchi Cloud Complex](#). Having an Opacity rating of 5 this is close to as opaque as the nebula can get (6 being the darkest) and may be an interesting target for a wide field telescope or binoculars.

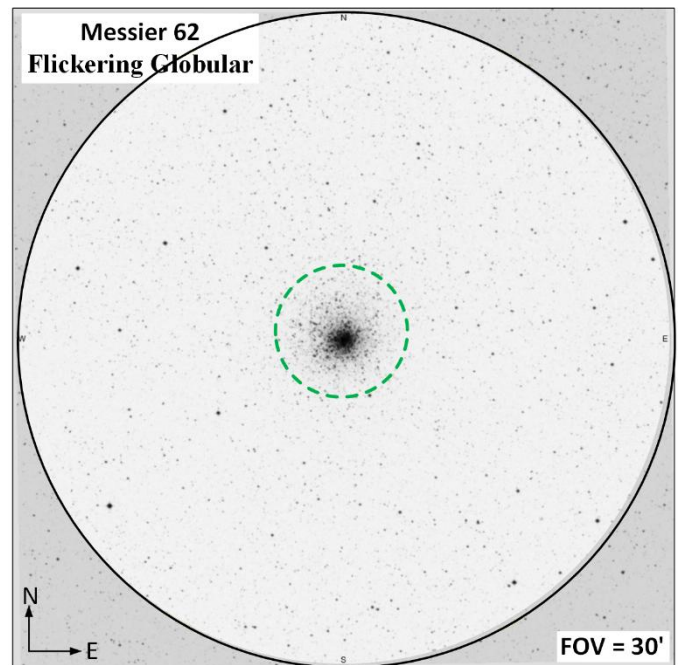
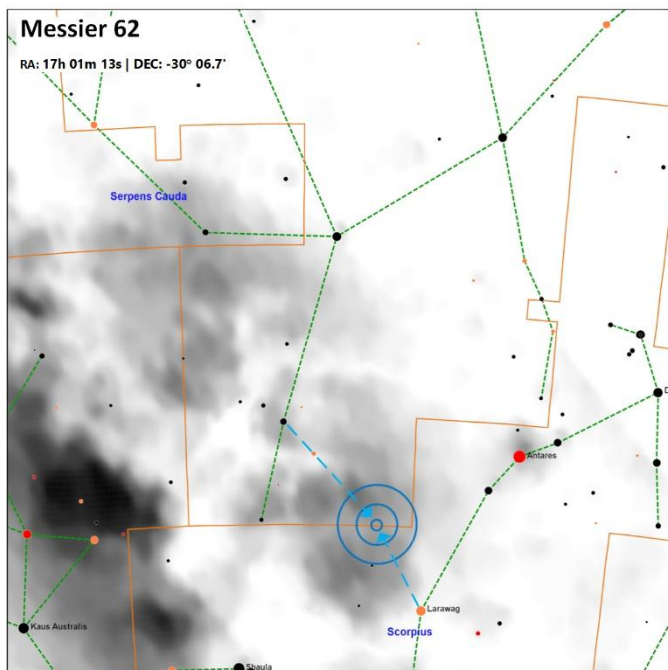


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NGC-6235 (GC || Mag=9.97 | Size=5.0' | SB=22.1 | mBortle=5 | mApt=70mm | MC=X |) Located 38,000 light years away this globular cluster has a diameter of 55 light years and has a Shapely-Sawyer concentration rating of “X” - Loose.

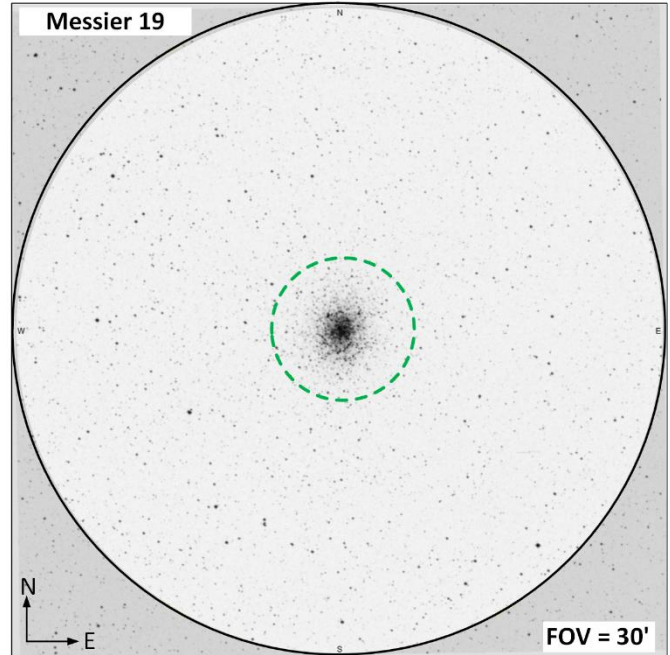
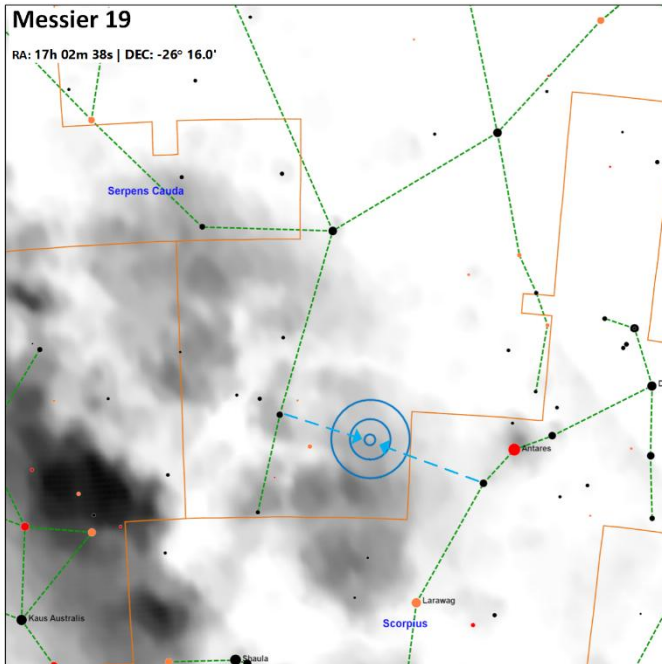


Messier 62 (GC || Mag=6.45 | Size=15.0' | SB=21.0 | mBortle=9 | mApt=50mm | MC=IV |) Located 21,500 light years away with a diameter of 100 light years. Located only 5,500 light years from the Galactic Center, it is one of the most massive and luminous globular clusters in the Milky Way estimated to have a mass of 1.2 million solar masses. It has been hypothesized this cluster may be host to an intermediate mass black hole. The Shapely-Sawyer concentration rating of “IV” - Intermediate rich concentrations.

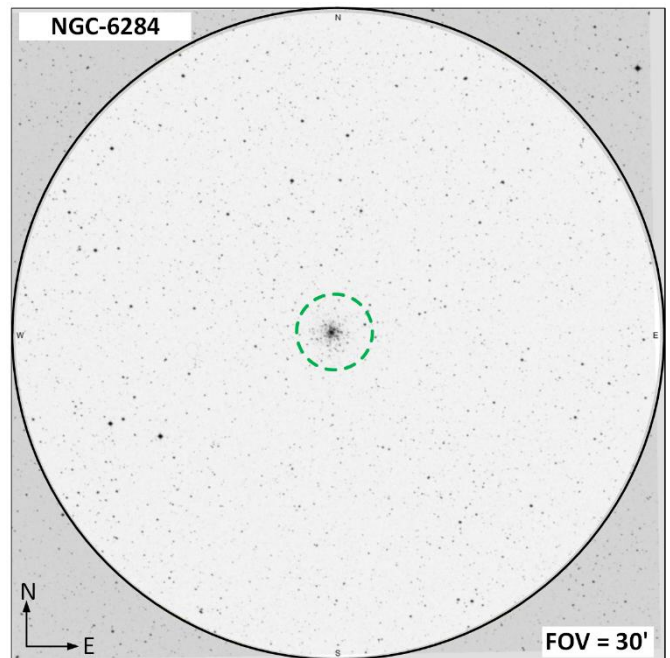
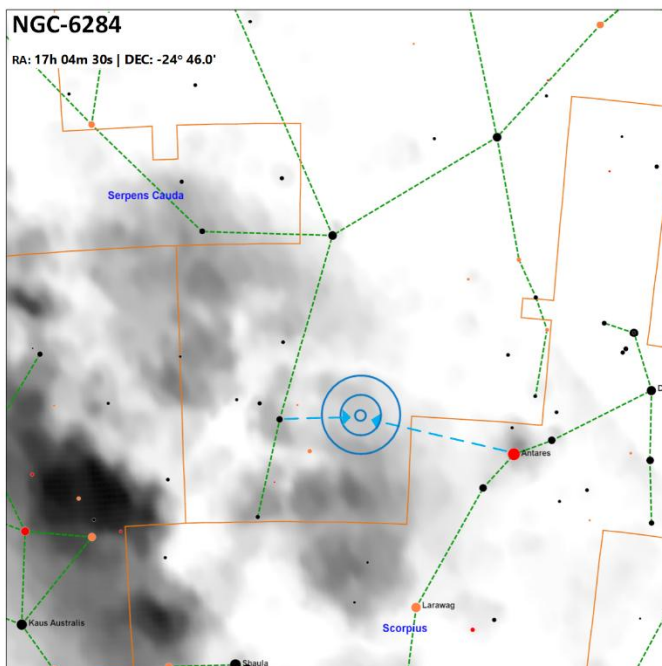


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Messier 19 (GC || Mag=6.77 | Size=17.0' | SB=21.6 | mBortle=7 | mApt=50mm | MC=VIII |) Located 28,700 light years away and is estimated to have a mass of 1.1 million solar masses and be about 11.9 billion years old. This appears to be one of the most oblate globular clusters known, but it is suspected that this appearance is due to presence of intervening gas and dust, when viewed in the IR spectrum the cluster shows almost no flattening. The Shapely-Sawyer concentration rating of “VIII” - Rather loosely concentrated towards the center.

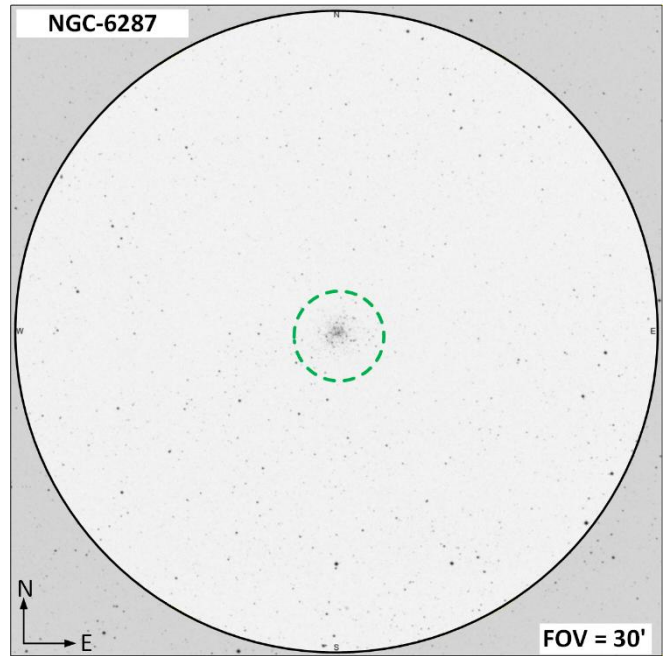
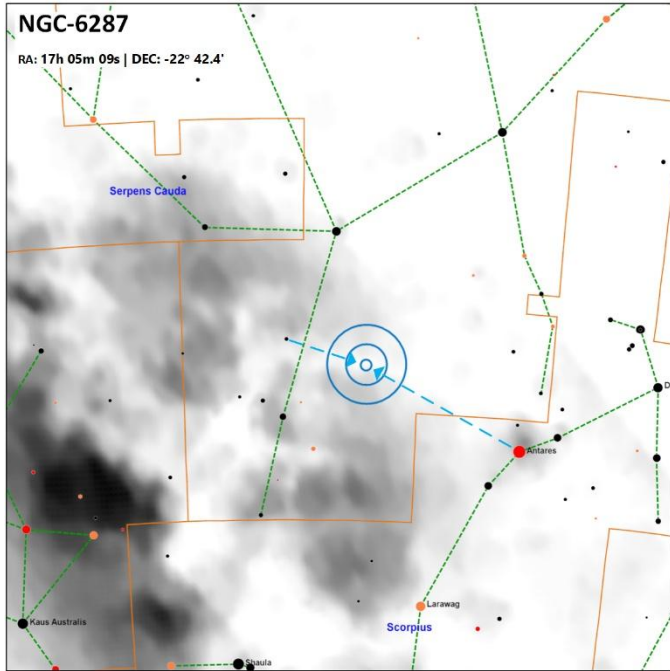


NGC 6284 (GC || Mag=8.83 | Size=6.2' | SB=21.4 | mBortle=7 | mApt=50mm | MC=IX |) Located 43,000 light years away with an estimated diameter for 90 light years. The Shapely-Sawyer concentration rating of “IX” - Loose towards the center.

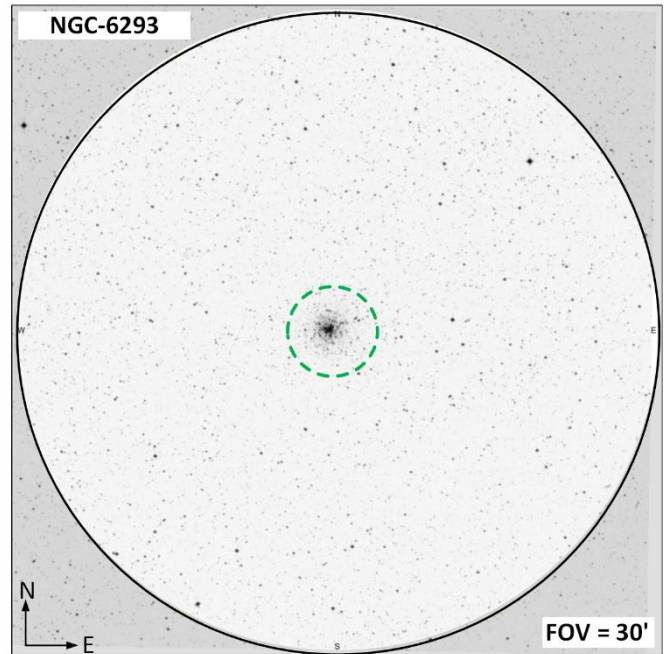
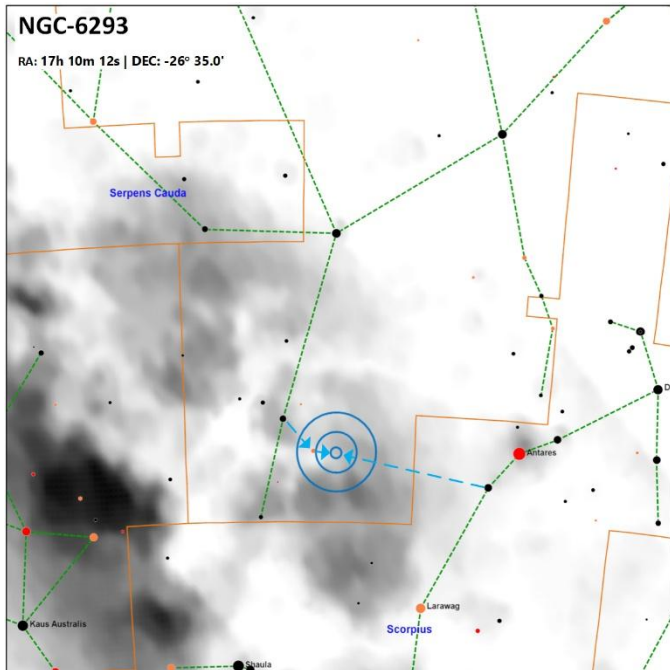


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NGC 6287 (GC || Mag=9.35 | Size=4.8' | SB=21.4 | mBortle=7 | mApt=50mm | MC=VII |) Located 30,300 light years away with an estimated diameter of 43 light years. The Shapely-Sawyer concentration rating of “VII” - Intermediate loose concentration.

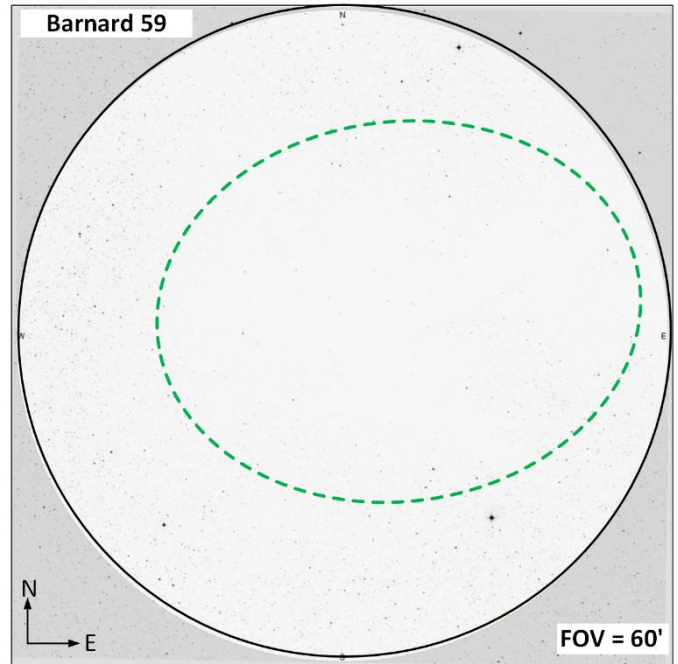
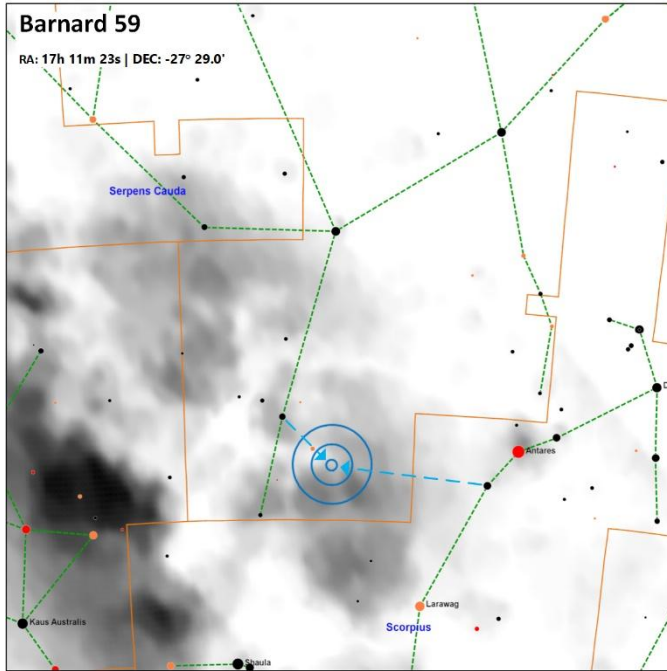


NGC 6293 (GC || Mag=8.22 | Size=8.2' | SB=21.4 | mBortle=8 | mApt=50mm | MC=IV |) Located between 31,000 to 52,000 light years away with an estimated diameter of 74 light years. The Shapely-Sawyer concentration rating of “IV” - Intermediate rich concentrations.

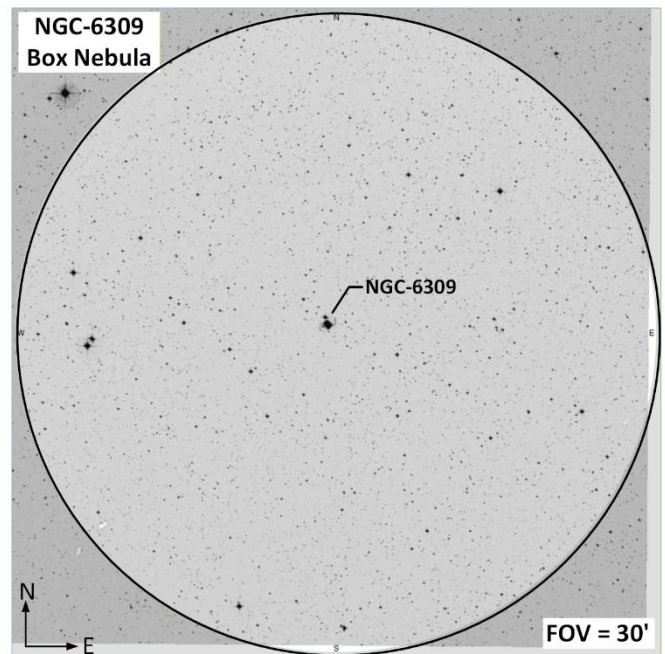
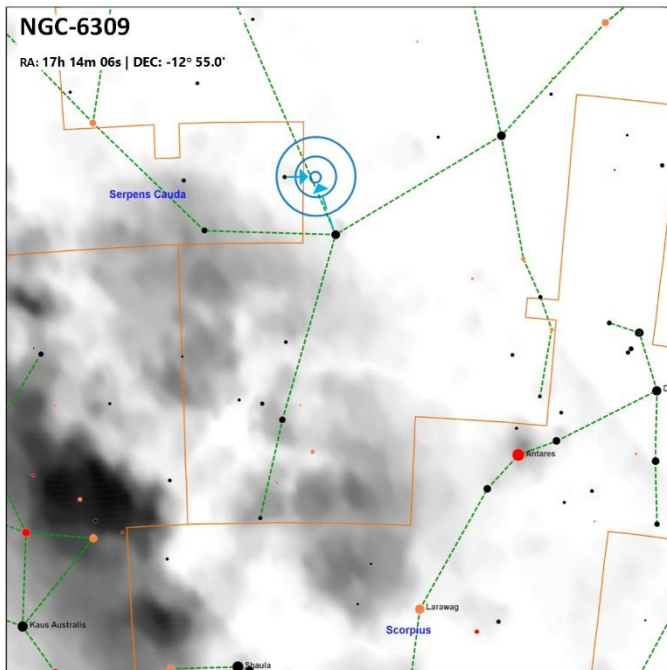


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Barnard 59 (DN || Size=15' | mBortle=4 | mApt=50mm | Opacity=6 |) The Pipe nebula is a part of the Dark Horse Nebula visible in dark skies with the naked eye. This dark nebula has an opacity rating of 5 and should make an excellent target for wide field telescopes and binoculars in dark skies.

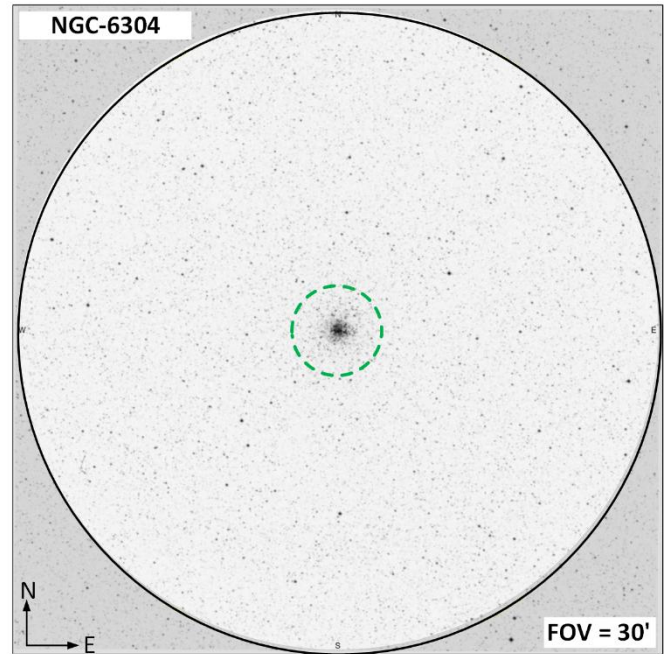
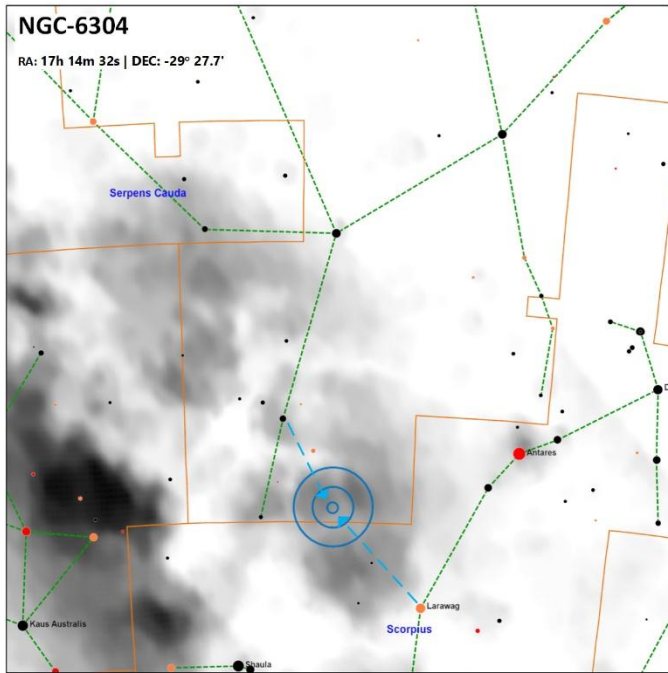


NGC 6309 (PN || Mag=11.5 | Size=0.26' | SB=17.2 | mBortle=9 | mApt=70mm | MC=Butterfly (quadrupolar) |) Planetary Nebula located about 6,500 light years away with a luminosity of about 1,800 times that of the Sun. This nebula has a Balick classification as Butterfly (quadrupolar) and has two pairs of lobes. Utilization of an OIII or H α filter may be helpful in viewing this object.

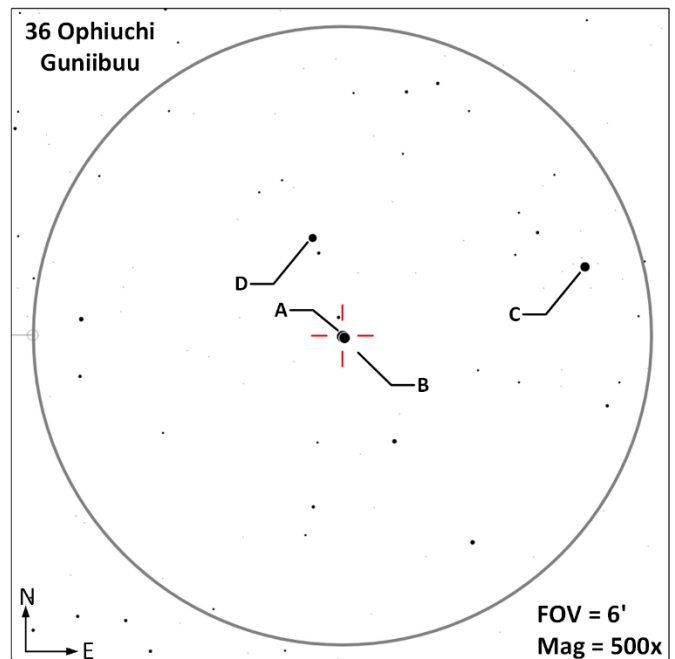
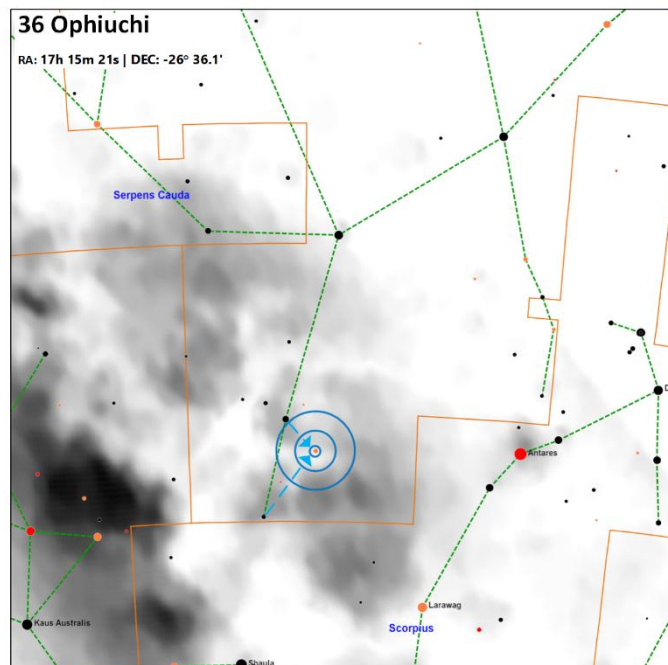


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NGC 6304 (GC || Mag=8.2 | Size=8.0' | SB=21.4 | mBortle=8 | mApt=50mm | MC=VI) Located 19,000 light years away with an estimated physical diameter of 45 light years. The Shapely-Sawyer concentration rating of “VI” - Intermediate mild concentration.

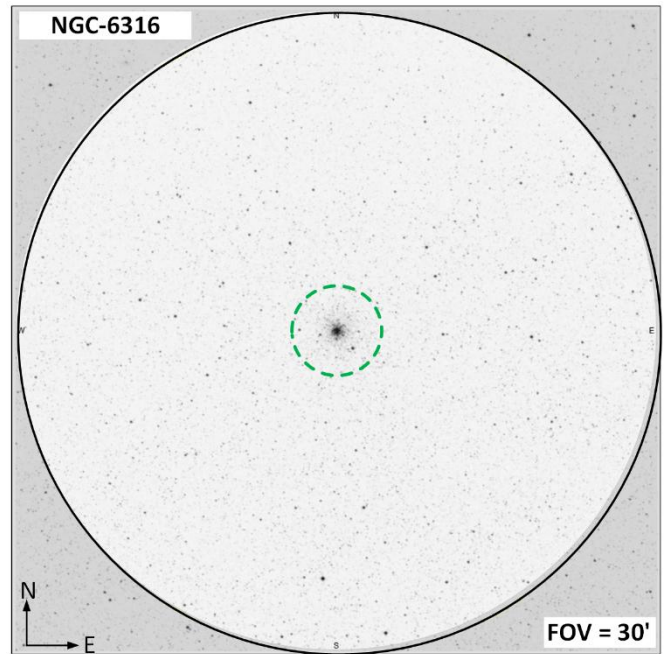
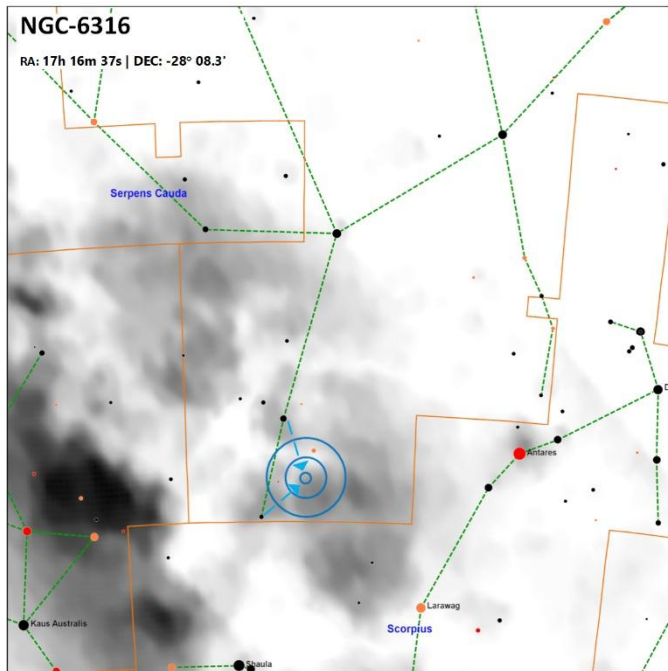


36 Ophiuchi (MS-4 || AB| Mag=5.1,5.1 | Sep=5.1" | PA=138° | mBortle=9 | mApt=50mm | Period=470.9y | Spec=K2V, K1V | Color=orange, orange || AC| Mag=5.1,7.8 | Sep=295.0" | PA=342° | mBortle=9 | mApt=50mm || AD| Mag=5.1,7.8 | Sep=295.0" | PA=342° | mBortle=9 | mApt=50mm) This quadruple star system is located 19.5 light years from earth. The “A” component is named Guniibuu. The AB pair have an orbital period of 471 years. The “AD” components are an optical pair. This star system resides in a rich field of view. Something to see in binoculars and a telescope.

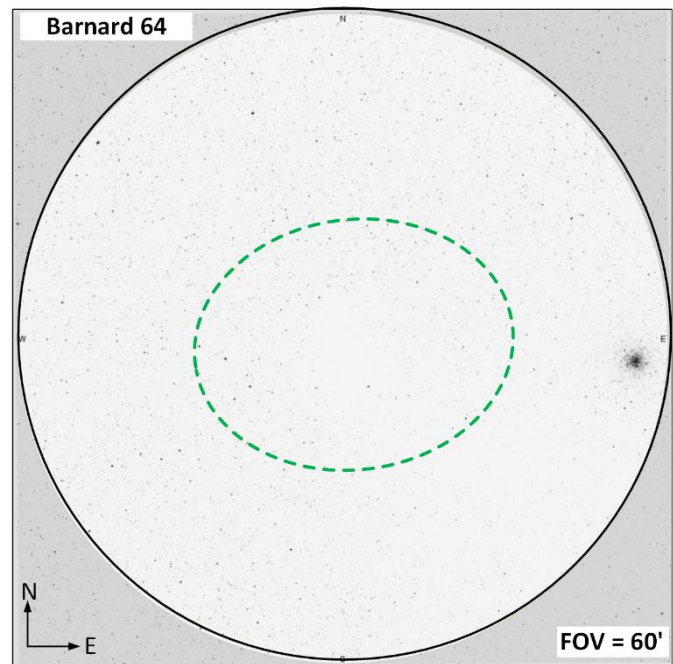
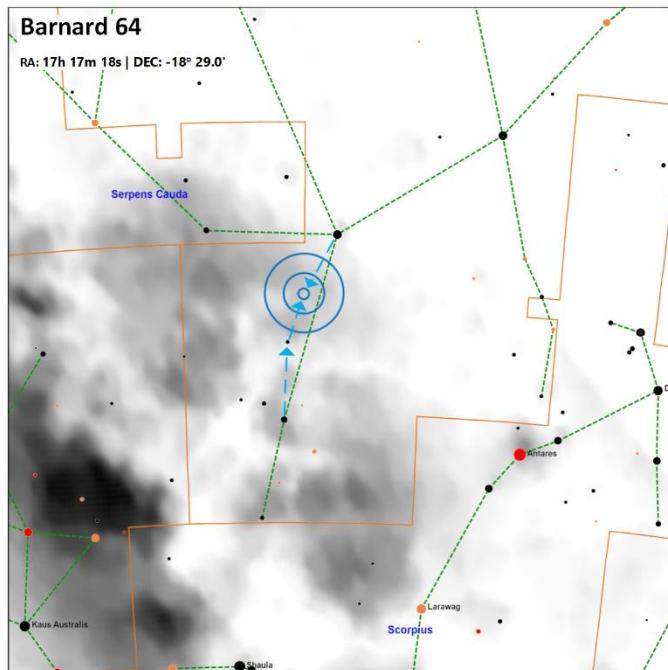


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NGC 6316 (GC || Mag=8.4 | Size=5.4' | SB=20.7 | mBortle=9 | mApt=50mm | MC=III |) Located 34,000 light years away with a physical diameter of about 53 light years. The Shapely-Sawyer concentration rating of “III” - Strong inner core of stars.

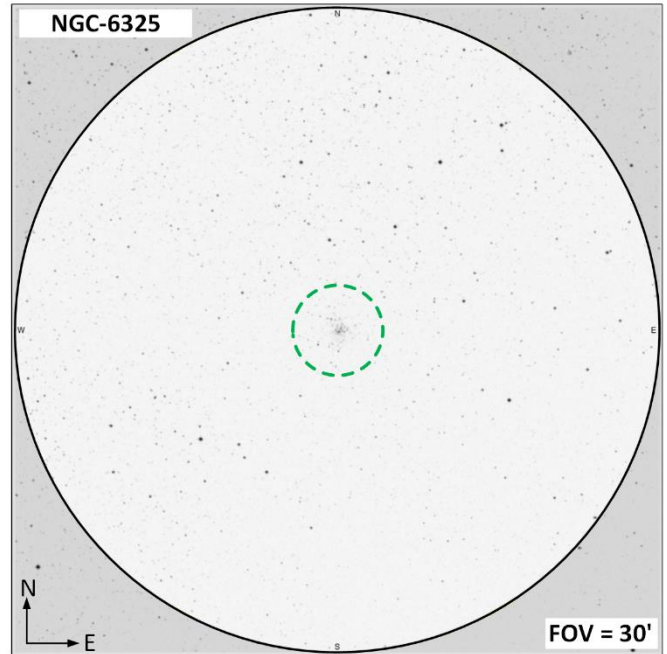
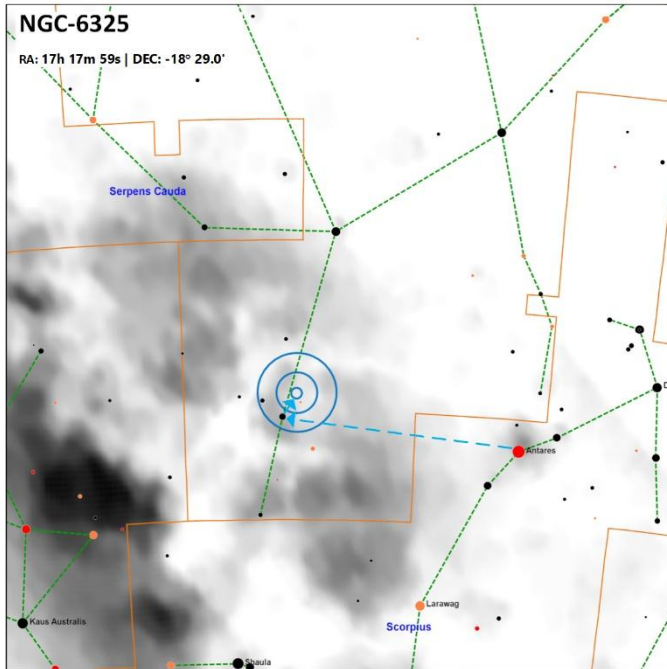


Barnard 64 (DN || Size=6'x7.8' | mBortle=4 | mApt=50mm | Opacity=6 |) This dark nebula is estimated to be 522 light years away with a physical diameter of 2 light years. This dark nebula has an opacity rating of 6 on this scale and should be a great target for a telescope.

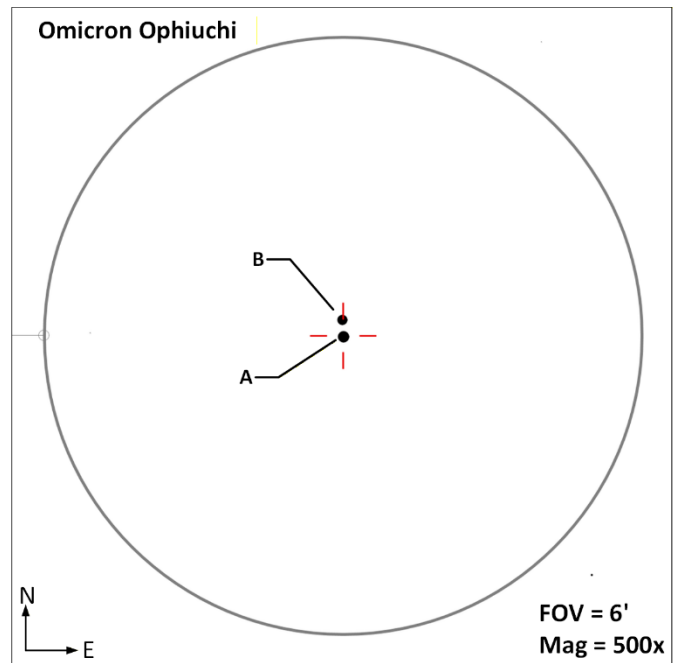
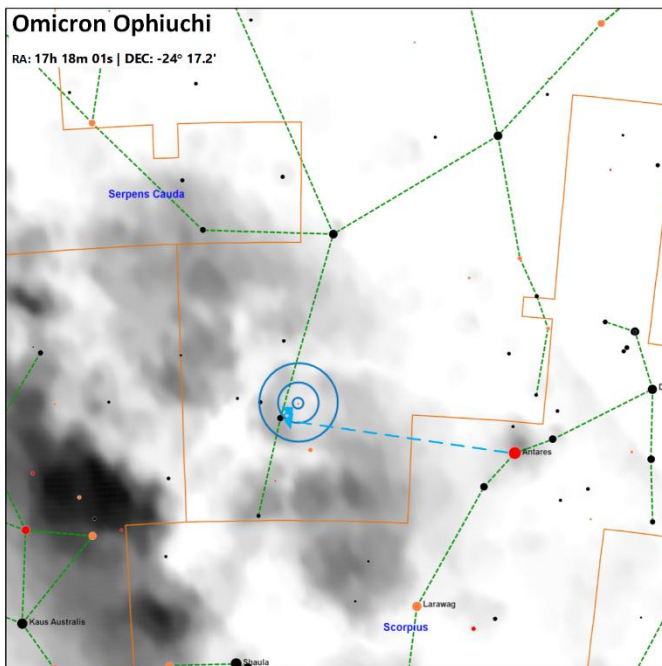


Constellation Guide

NGC 6325 (GC || Mag=10.3 | Size=4.1' | SB=22.0 | mBortle=5 | mApt=70mm | MC=IV) Located 25,000 light years away with an estimated physical diameter of 30 light years. The Shapely-Sawyer concentration rating of “IV” - Intermediate rich concentrations.

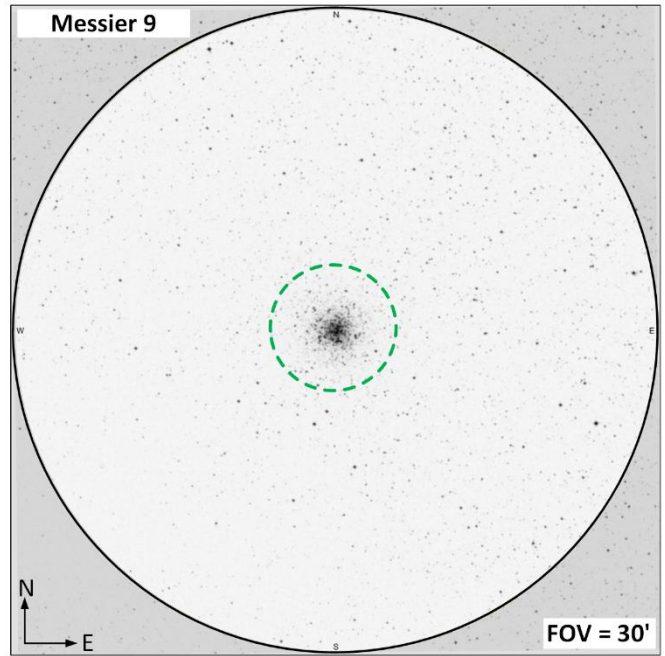
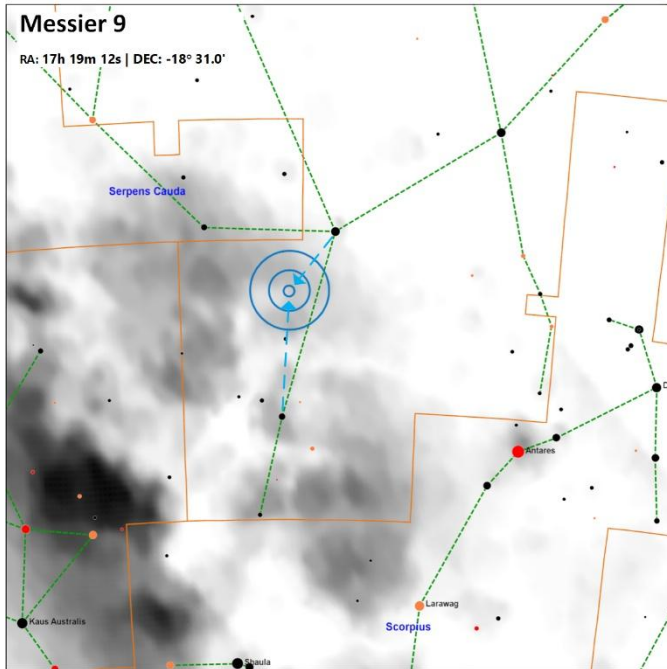


Omicron Oph (DS || AB| Mag=5.2,6.6 | Sep=10.7" | PA=355° | mBortle=9 | mApt=50mm | Spec=G8III, F6IV-V | Color=orange, yellow-white) Located 281 light years away. This pair form an orange and pale blue pair and is listed on the top 120 Colorful Stars list.

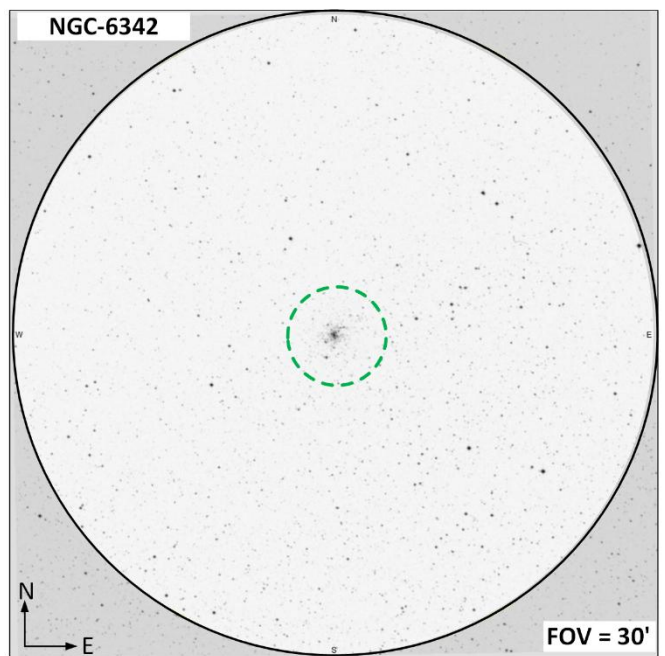
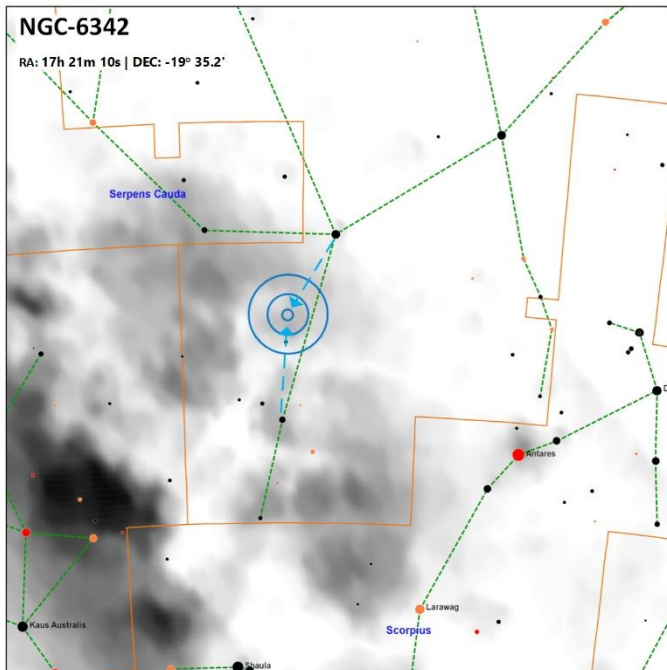


Constellation Guide

Messier 9 (GC || Mag=7.7 | Size=12.0' | SB=21.7 | mBortle=7 | mApt=50mm | MC=VIII |) Located 25,800 light years away and is superimposed on top of the dark nebula Barnard 64. The Shapely-Sawyer concentration rating of “VIII” - Rather loosely concentrated towards the center.

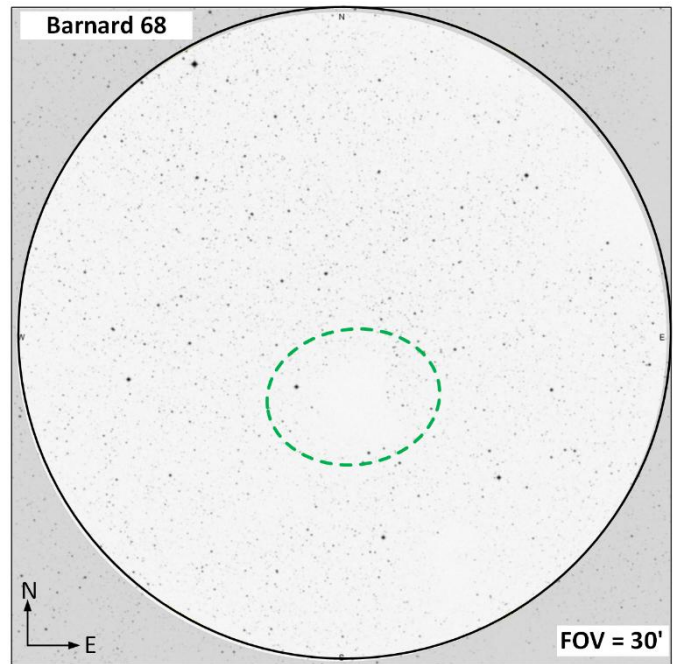
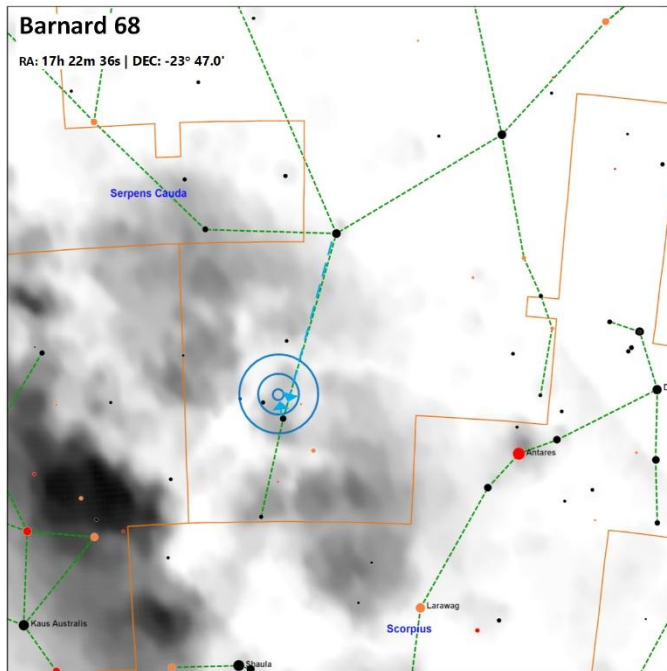


NGC 6342 (GC || Mag=9.7 | Size=4.4' | SB=21.5 | mBortle=7 | mApt=50mm | MC=IV |) Located 28,000 light years away with a physical diameter of 35 light years. This is classified as a metal-rich globular yet only has one generation of stars. The Shapely-Sawyer concentration rating of “IV” - Intermediate rich concentrations.

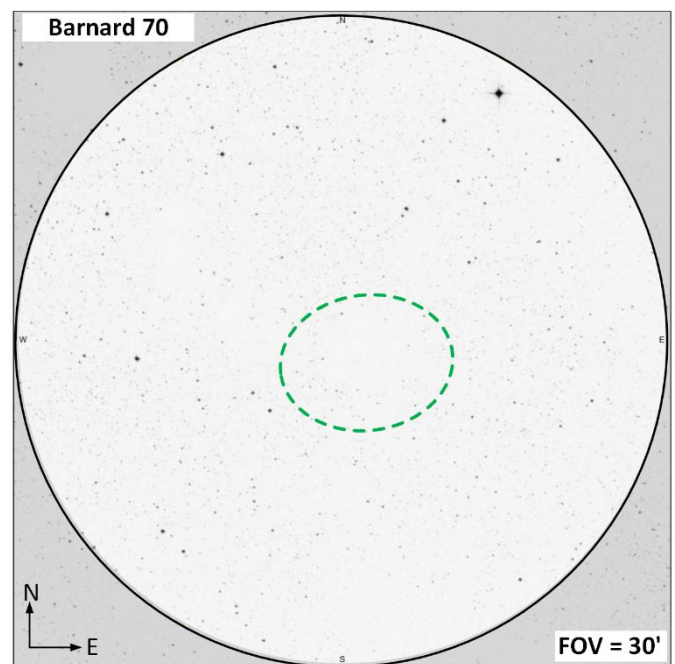
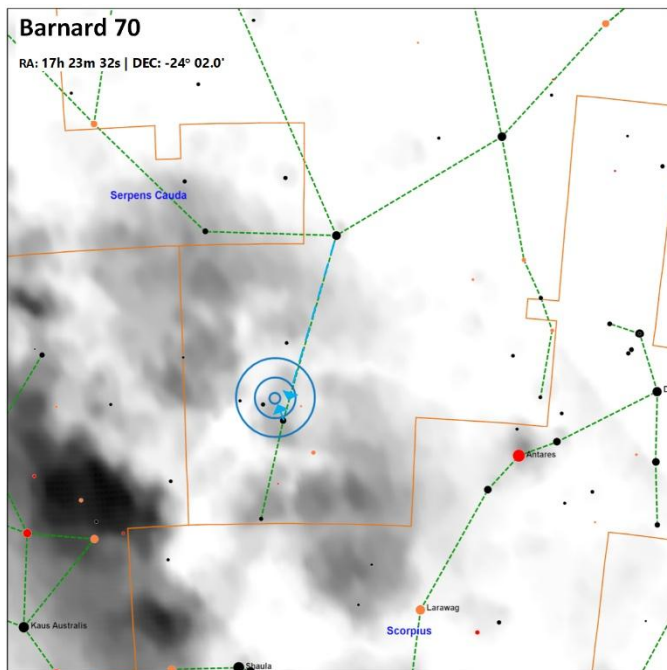


Constellation Guide

Barnard 68 (DN || Size=4' | mBortle=4 | mApt=60mm | Opacity=6) Estimated to be 522 light years away with a physical diameter of only one light year. This dark nebula has an opacity rating of “6” the most opaque value for a dark nebula.

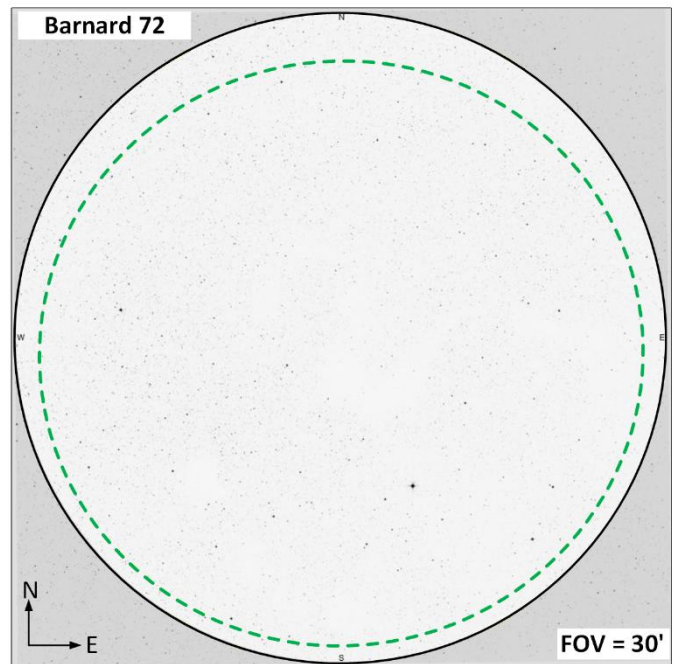
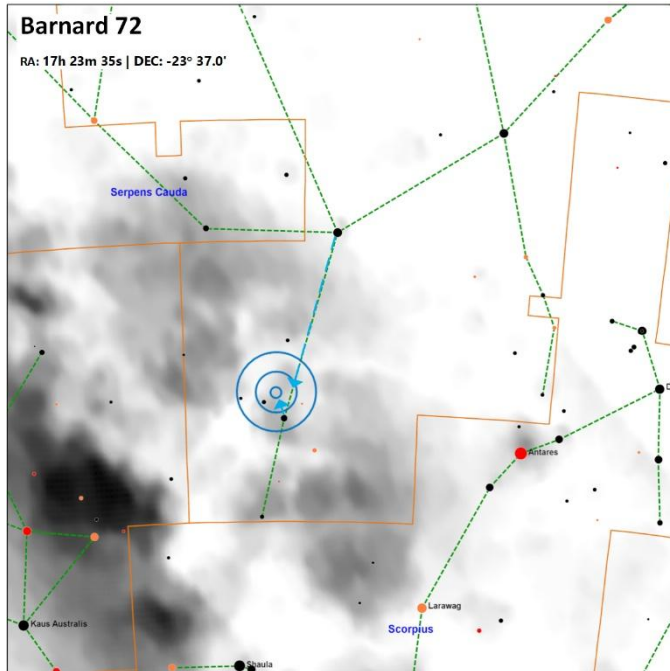


Barnard 70 (DN || Size=3'x1' | mBortle=4 | mApt=150mm | Opacity=4) Not much information is available on this dark nebula. This dark nebula has an opacity rating of “4” on a scale from 1 to 6.

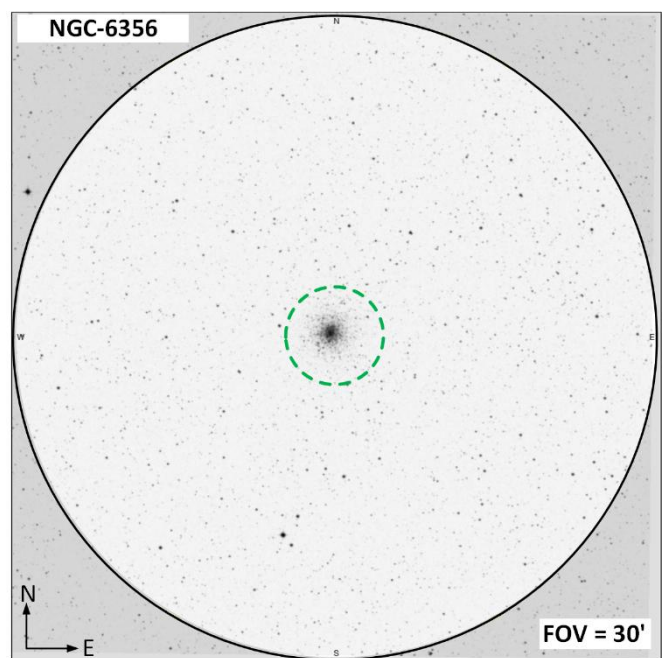
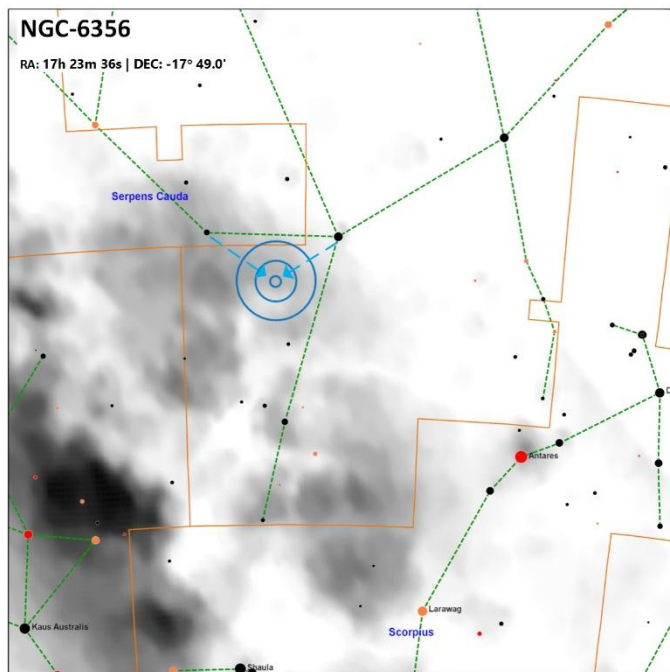


Constellation Guide

Barnard 72 (DN || Size=37'x17' | mBortle=4 | mApt=50mm | Opacity=6) Snake Nebula is named after its distinctive “S” shape and is located about 650 light years away and a few light years across. The opacity rating for this object is 6.

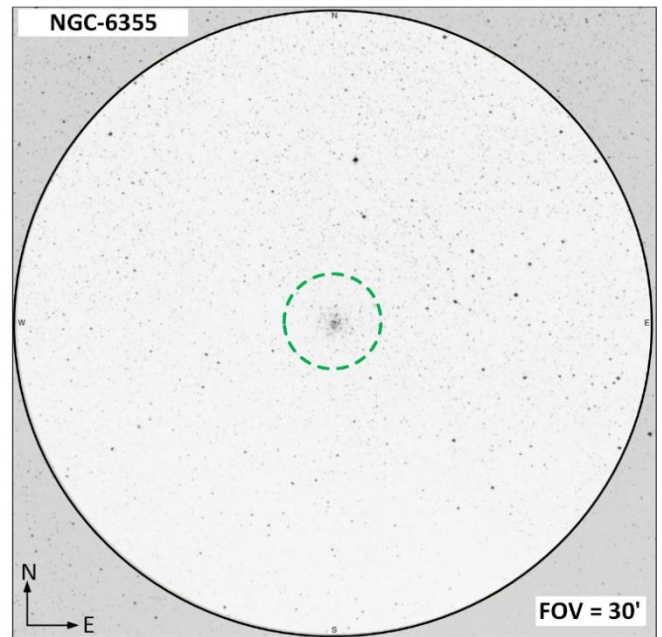
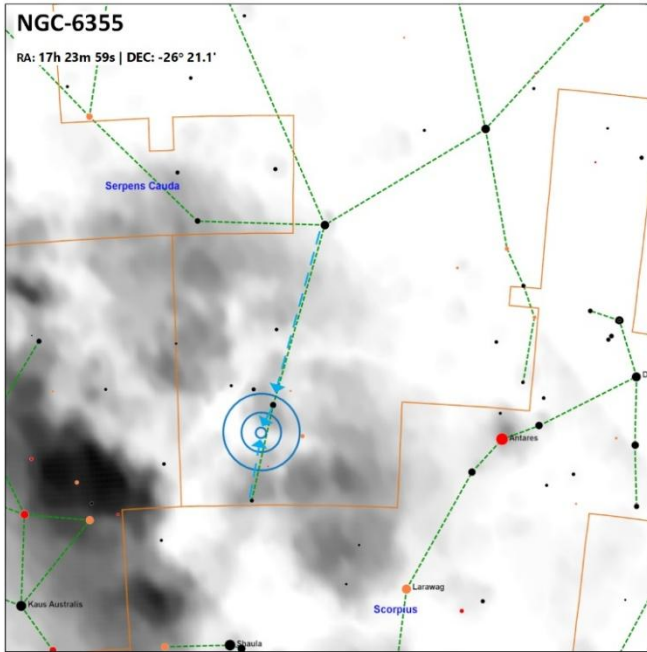


NGC 6356 (GC || Mag=8.2 | Size=10.0' | SB=21.9 | mBortle=6 | mApt=50mm | MC=II) Located 49,000 light years away with a physical diameter of 143 light years. The Shapely-Sawyer concentration rating of “II” - Dense central concentration.

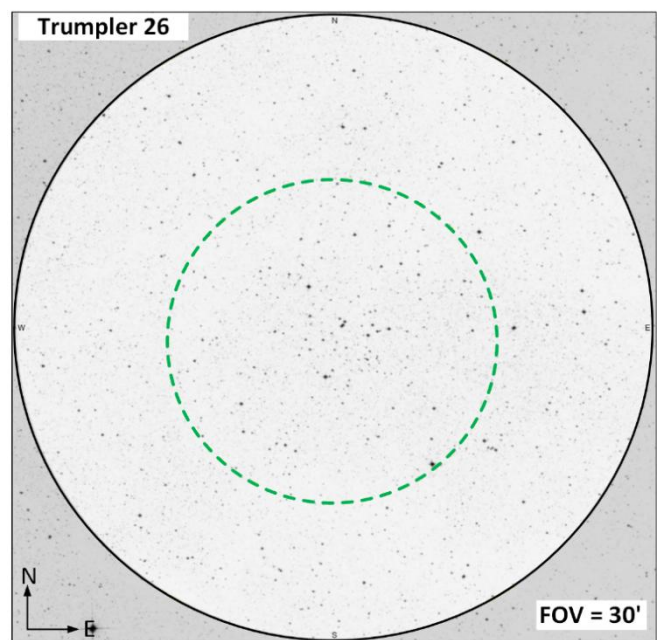
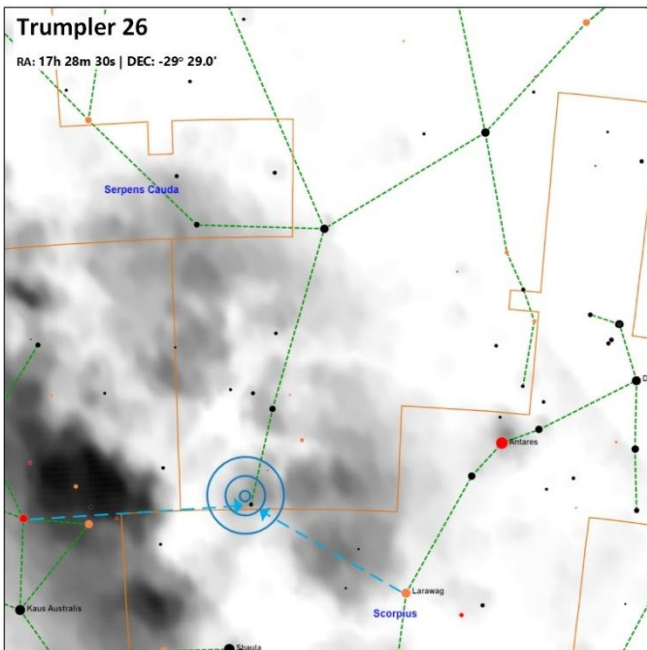


Constellation Guide

NGC 6355 (GC || Mag=9.1 | Size=4.2' | SB=20.9 | mBortle=9 | mApt=50mm |) Located 30,000 light years away with a physical diameter of 37 light years. This object was initially thought to be an open cluster when first discovered, but has been since identified as a globular cluster. Shapely-Sawyer concentration class for the object not provided.

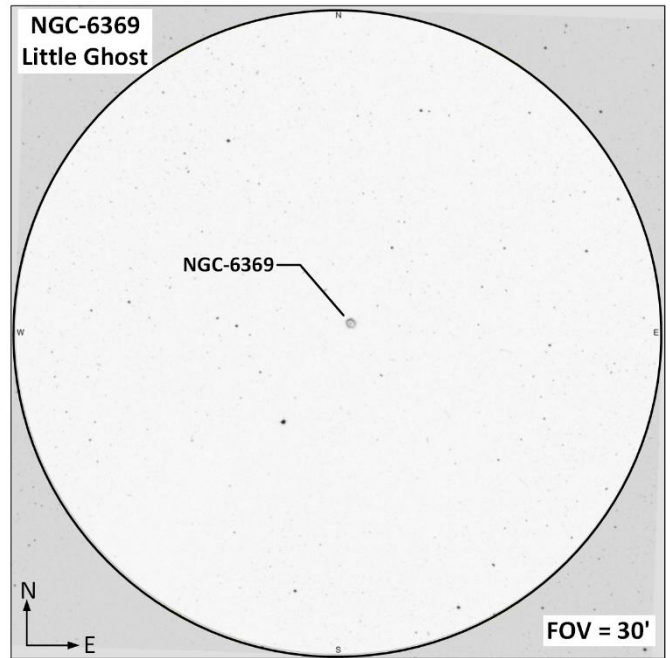
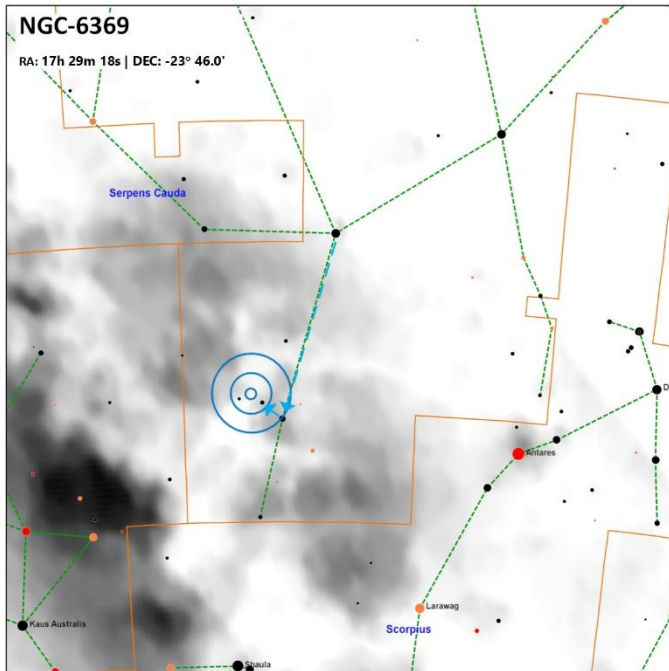


Trumpler 26 (OC || Mag=12.0 | Size=7' | mBortle=? | mApt=?mm | MC=II2p |) This open cluster is located 3,262 light years away with a physical diameter of 6 light years. It is classified as II- Detached cluster with little central concentration, 2-A medium range of brightness between the stars in the cluster, p-Poor clusters with less than 50 stars. Calculations indicate this object may be too dim to view with aperture of 150mm (6") or less, so mBortle and mApt values are not known.

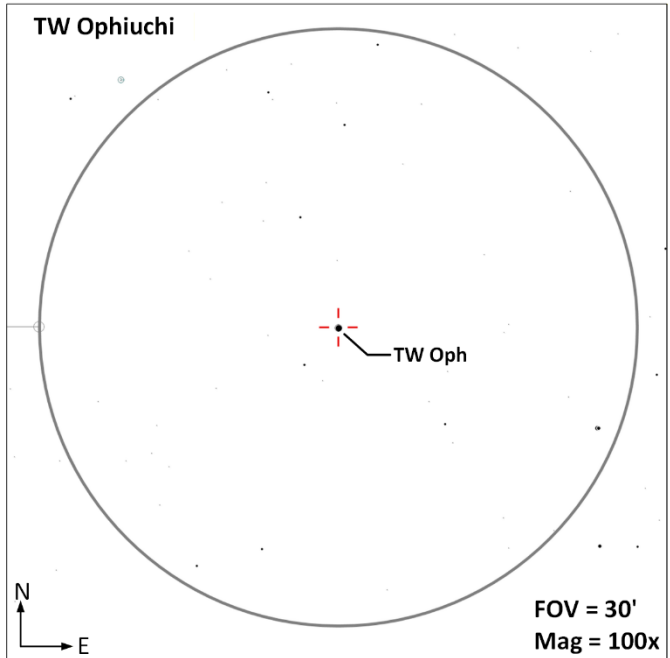
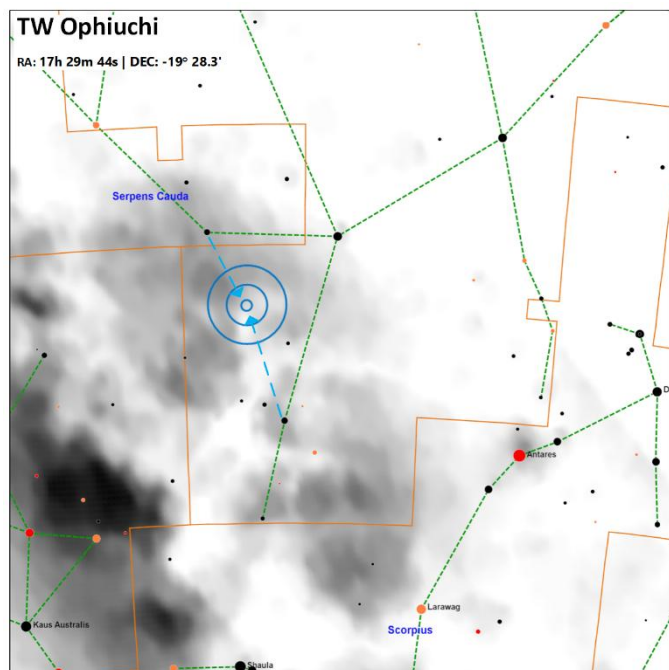


Constellation Guide

NGC 6369 (PN || Mag=11.4 | Size=0.5' | SB=18.5 | mBortle=9 | mApt=70mm | MC=Round (bright ring) |) The Little Ghost Nebula is not to be confused with the “Ghost Nebula” or “Ghost Head Nebula” and is located 4,900 light years away and has a physical diameter of 1 light year.

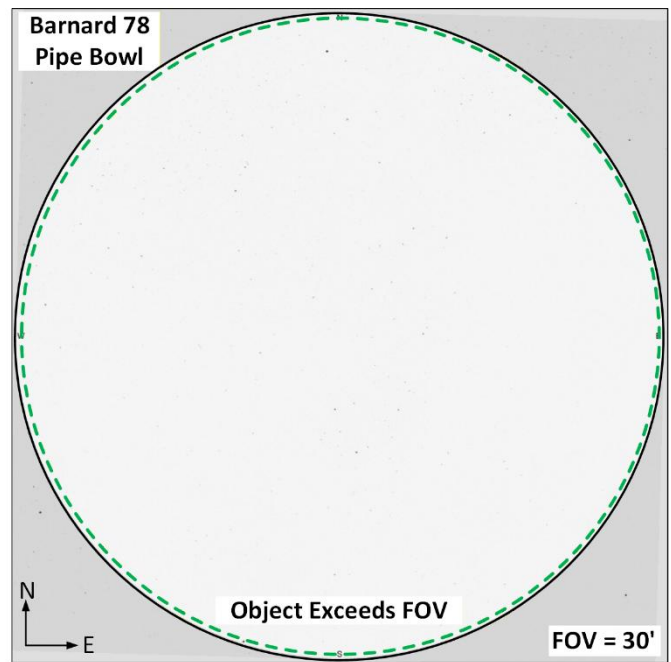
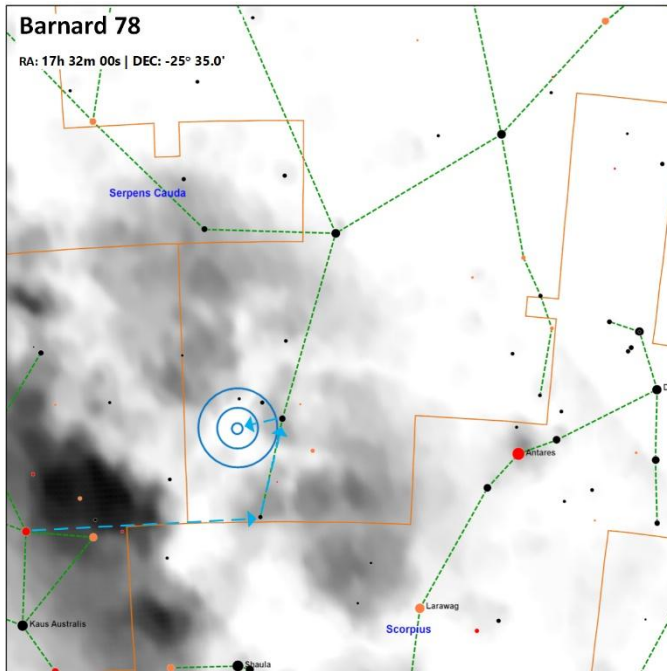


TW Ophiuchi (CS || Magnitude Range= 4.8 to 12.5 | Spec=C5,5 (C-N5) | BV=+4.2 | Color=deep red |) This carbon star is located 910 light years away and varies in magnitude between 11.6 to 13.8 over a period of 185 days. With a B-V color index of +4.58 this star should be quite red when viewed.

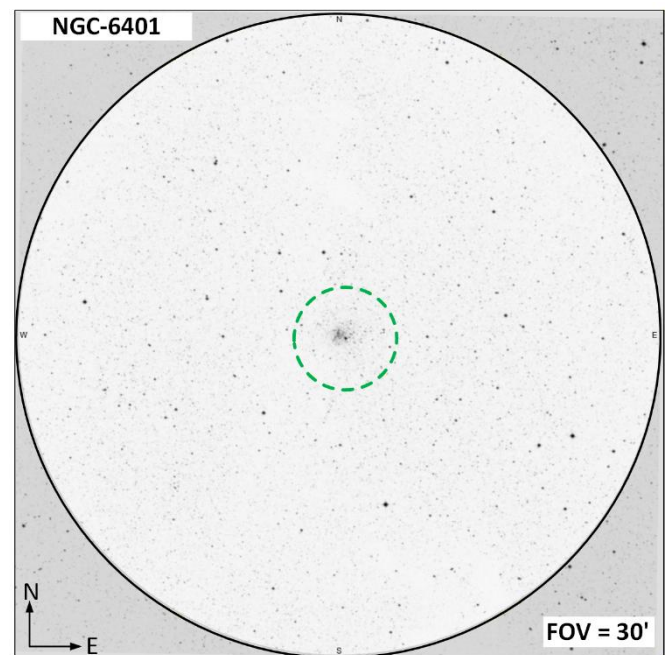
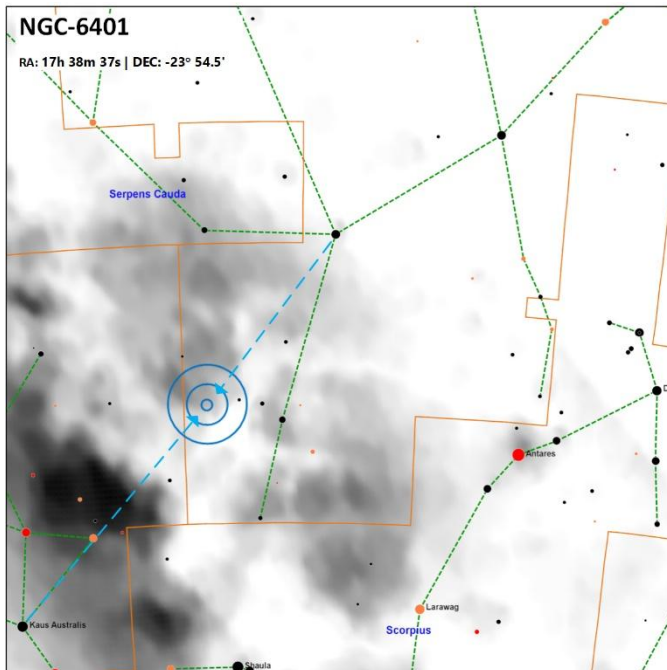


Constellation Guide

Barnard 78 (DN || Size=200'x140' | mBortle=4 | mApt=50mm | Opacity=5 |) The Pipe (Bowl) nebula is a large dark nebula that is part of the Dark Horse Nebula with an opacity rating of 5 on a scale of 1 to 6.



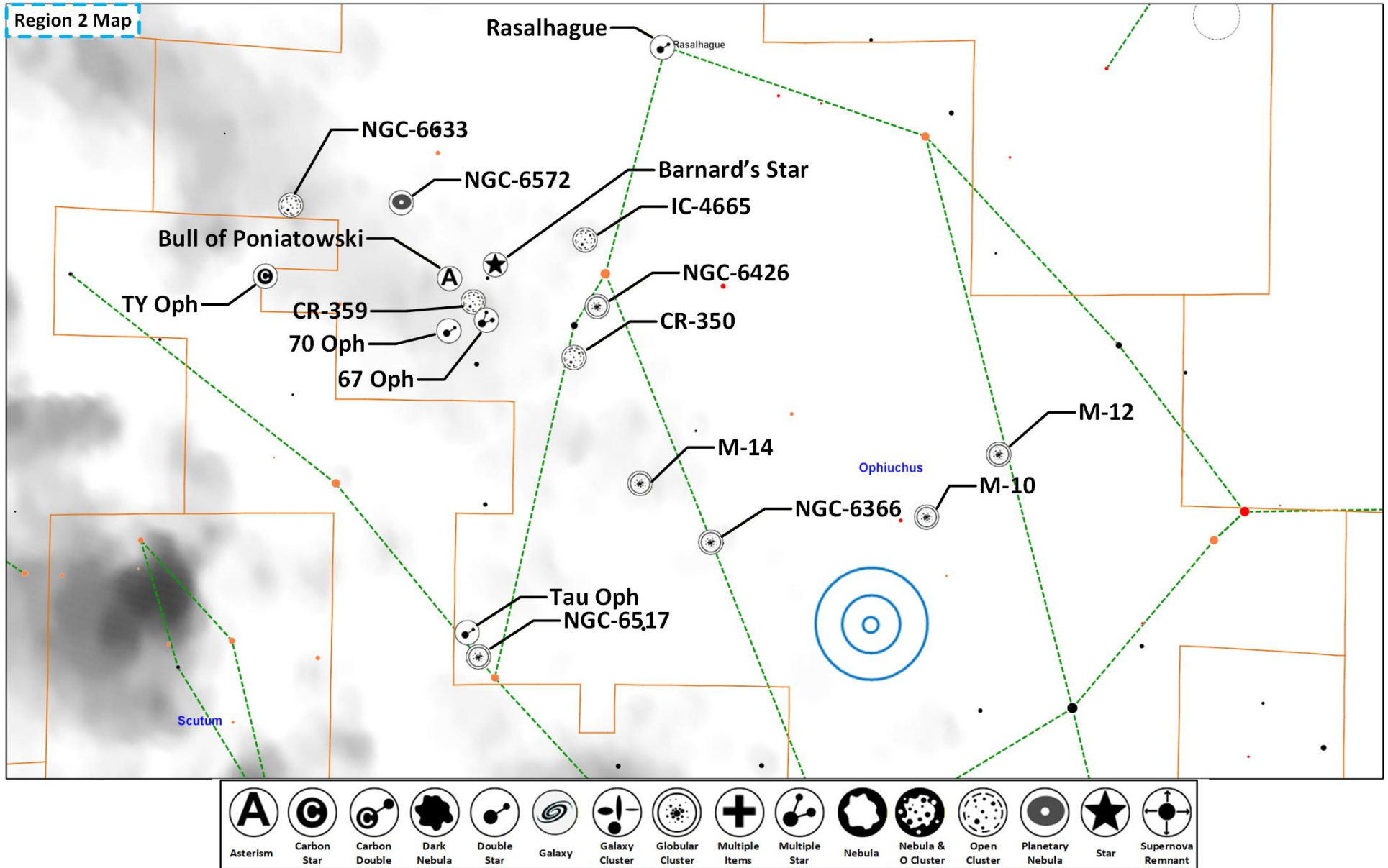
NGC 6401 (GC || Mag=9.4 | Size=4.8' | SB=21.5 | mBortle=7 | mApt=50mm |) Located 25,100 light years away with a physical diameter of 48 light years. This is a very old cluster with an estimated age of 13 billion years.



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Constellation Guide

Region 2: Upper Constellation Targets



Constellation Guide

Region 2: Upper Constellation Targets

Object (Type)	Links	Gear	Aliases	Stats
Messier 12 (GC)	1	B, T	M-12; Gumball Globular, NGC6218	Mag=6.7 Size=16.0' SB=21.3 mBortle=8 mApt=50mm MC=IX
Messier 10 (GC)	1	B, T	M-10; NGC-6254; GCl-49	Mag=6.6 Size=20.0' SB=21.7 mBortle=7 mApt=50mm MC=VII
NGC 6366 (GC)	1	T	GCl 65	Mag=9.2 Size=13.0' SB=23.4 mBortle=2 mApt=?mm MC=XI
Rasalhague (DS)	1 , 2	T	SAO-102932; HIP-86032; Alpha Ophiuchi; 55 Ophiuchi; HD 159561; HR 6556; BD+12 3252; FK5 656	AB Mag=2.1,5.0 Sep=0.8" PA=24° mBortle=? mApt=250mm Period=8.6y Spec=A5III, K5V Color=white, orange
Messier 14 (GC)	1	T	M-14; NGC6402	Mag=7.6 Size=11.0' SB=21.4 mBortle=8 mApt=50mm MC=VIII
NGC 6426 (GC)	1	T	GCl 76	Mag=11.0 Size=4.2' SB=22.8 mBortle=2 mApt=200mm MC=IX
IC 4665 (OC)	1	B, T	Collinder 349; Mel 179; Summer Beehive Cluster; Poseidon's Trident	Mag=4.2 Size=70' mBortle=9 mApt=50mm MC=III2p
Collinder 350 (OC)		B, T	Cr 350; Lund779; OCL75	Mag=6.1 Size=39' mBortle=9 mApt=50mm MC=III2m
Barnard's Star (Star)	1	B, T	HIP-87937; V2500 Oph; GJ 699; BD+04 3561a; LHS 57; LTT 15309; Proxima Ophiuchi; Velox Barnardi	Mag=9.6 Spec=M4V Color=red
67 Ophiuchi (MS-5)	1 , 2	B, T	SAO-123013, HIP-88192, HR 6714, HD164353, 67 Oph, ADS 10955	AB Mag=4.0,13.7 Sep=6.6" PA=196° mBortle=? mApt=250mm Spec=B5Ib, ? Color=blue-white, ? AC Mag=4.0,8.1 Sep=54.7" PA=143° mBortle=9 mApt=50mm Spec=B5Ib, B2V Color=blue-white, blue-white AE Mag=4.0,11.0 Sep=45.1" PA=180° mBortle=9 mApt=70mm CD Mag=4.0,12.5 Sep=6.2" PA=120° mBortle=4 mApt=150mm CE Mag=4.0,11.0 Sep=33.3" PA=226° mBortle=9 mApt=70mm
Collinder 359 (OC)		B	Cr-359; Mel186; Lund801; OCL84	Mag=3.0 Size=240' mBortle=9 mApt=50mm MC=III3m

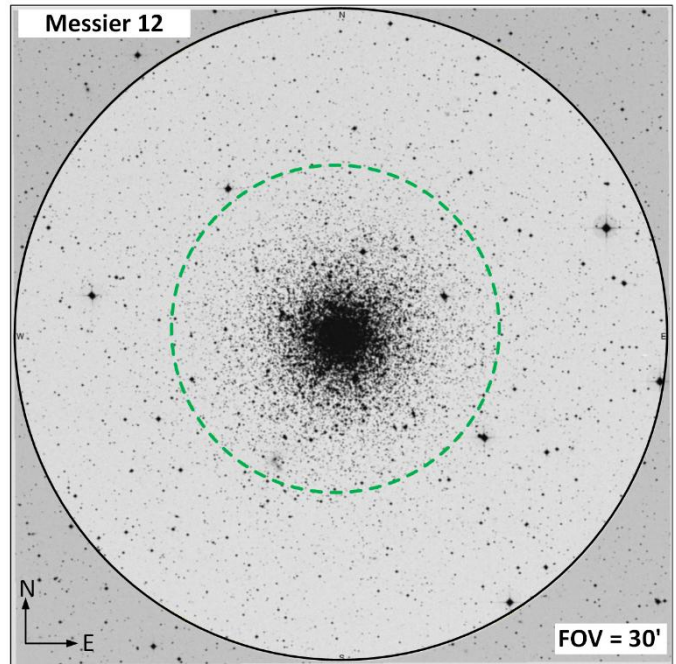
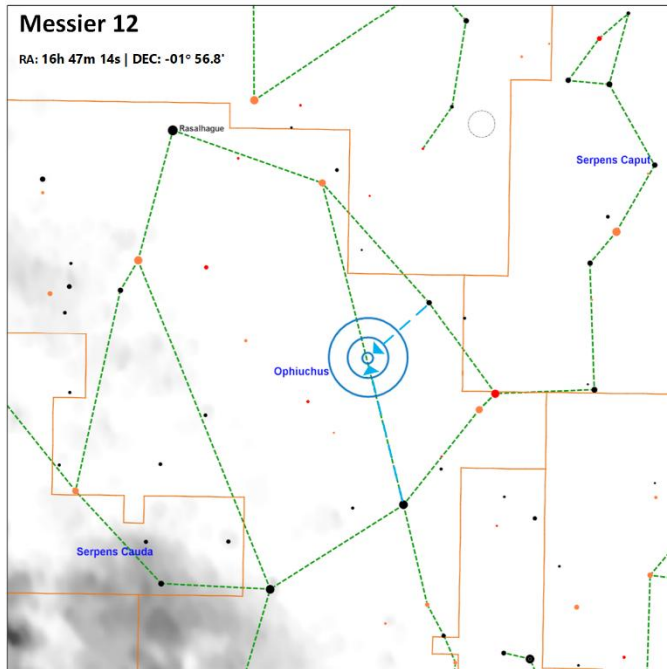
Constellation Guide

Object (Type)	Links	Gear	Aliases	Stats
NGC 6517 (GC)		T	GCl 81	Mag=10.2 Size=4.0' SB=21.9 mBortle=5 mApt=70mm MC=IV
Tau Oph (DS)	1 , 2	T	SAO-142050; HIP-88404; HR 6733; HD 164761; ADS 11005; 69 Oph; GC 24565	AB Mag=5.3,6.0 Sep=1.4" PA=292° mBortle=9 mApt=102mm Period=280.0y Spec=F2V, F5V Color=yellow-white, yellow-white
Bull of Poniatowski (AS)	1	B	Taurus Poniatovii; Taurus Poniatowski; Poniatowski's Bull; [66, 67, 68, 70, 72] Oph	Size=210' Stars= 7
70 Ophiuchi (DS)	1 , 2	T	SAO-123107; HIP-88601; p Oph; HD 165341; HR 6752; ADS 11046; GJ 702; BD+02 3482; V2391 Oph	AB Mag=4.2,6.2 Sep=5.0" PA=140° mBortle=9 mApt=50mm Period=88.4y Spec=K0V, K4V Color=orange, orange-red
NGC 6572 (PN)	1	T	Emerald Nebula; Blue Racquetball Nebula; Turquoise Orb Nebula; Green Nebula	Mag=8.1 Size=0.25' SB=13.7 mBortle=9 mApt=50mm MC=Elliptical
NGC 6633 (OC)	1	B, T	Collinder 380; Mel 201; Tweedledum Cluster; Wasp Cluster; Captain Hook Cluster	Mag=4.6 Size=27' mBortle=9 mApt=50mm MC=III2m
TY Ophiuchi (CS)			J183123.29+042253., HD170831, Sky18310086	Magnitude Range= 6.5 to 9.8 Spec=C5,5 Color=red

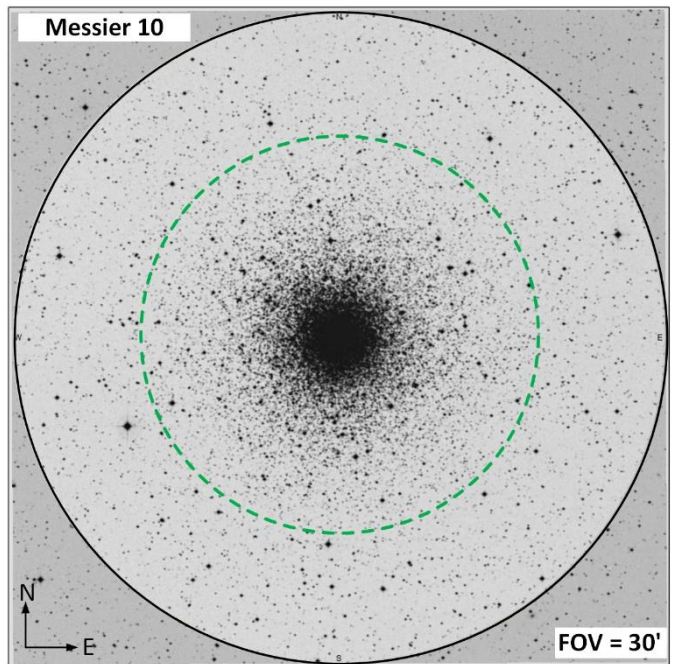
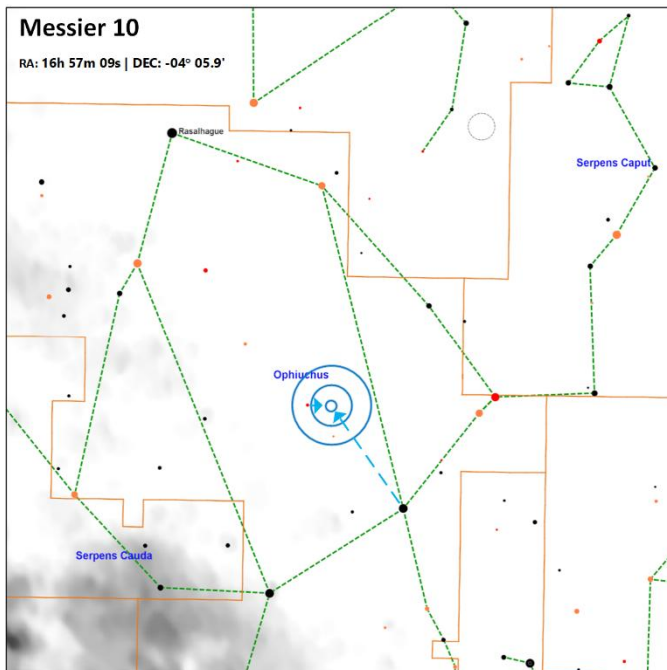
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Constellation Guide

Messier 12 (GC || Mag=6.7 | Size=16.0' | SB=21.3 | mBortle=8 | mApt=50mm | MC=IX |) Located 16,400 light years away with a physical diameter of 75 light years. The Shapely-Sawyer concentration rating of “IX” - Loose towards the center.

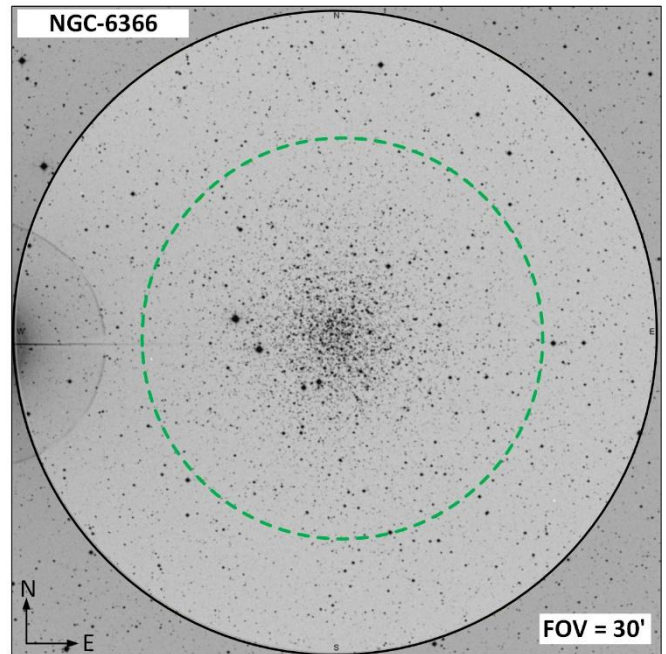
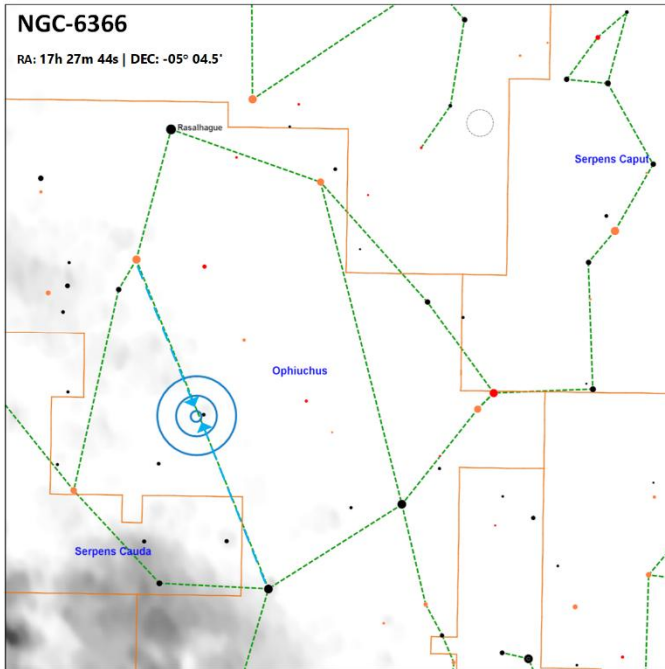


Messier 10 (GC || Mag=6.6 | Size=20.0' | SB=21.7 | mBortle=7 | mApt=50mm | MC=VII |) Located 14,000 light years away with a physical diameter 83 light years. This is one of the brighter globular clusters in this constellation and is rated as VII- Intermediate loose concentration.

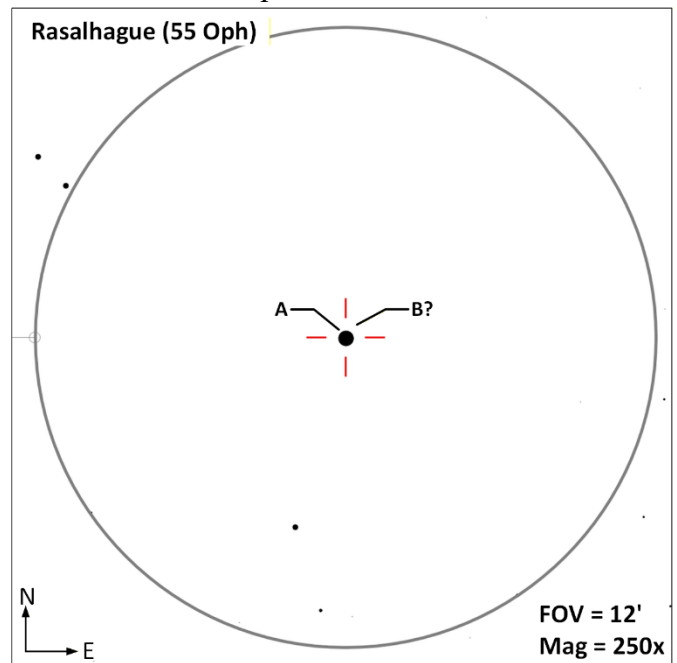
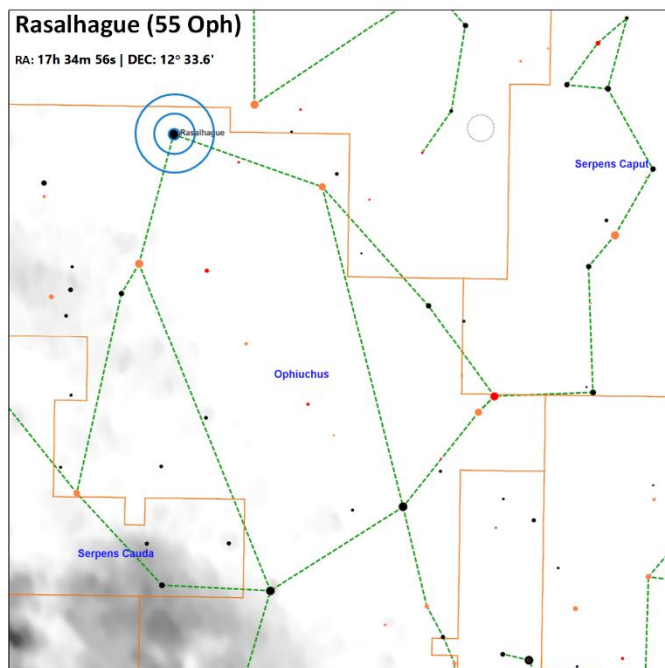


Constellation Guide

NGC 6366 (GC || Mag=9.2 | Size=13.0' | SB=23.4 | mBortle=2 | mApt=?mm | MC=XI |) Located 11,700 light years away with a physical diameter of 43 light years. The Shapely-Sawyer class is XI – Very loose towards the center.

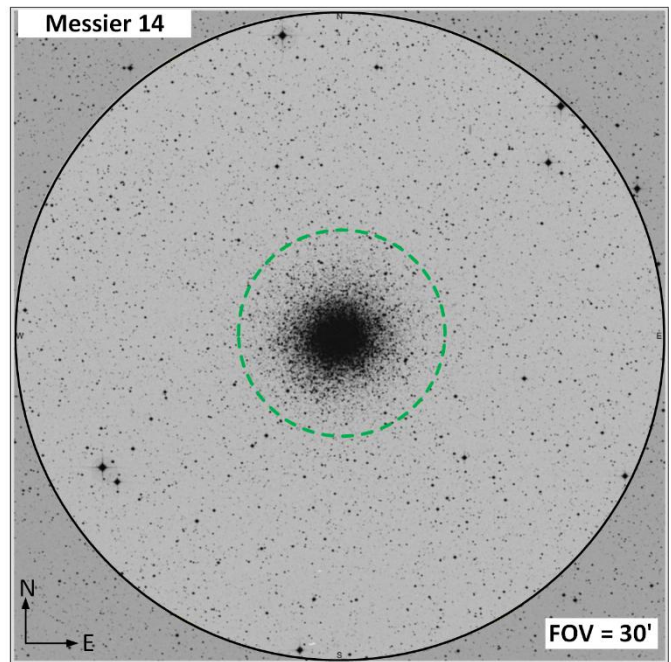
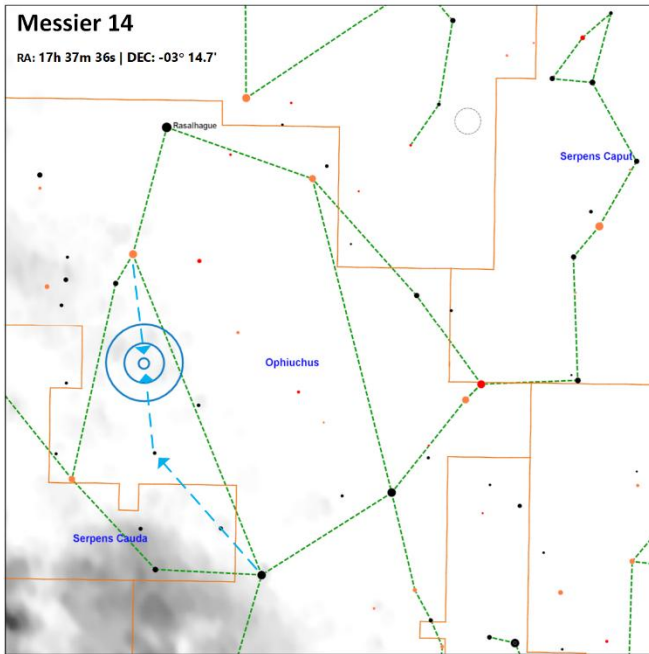


Rasalhague (DS | AB| Mag=2.1,5.0 | Sep=0.8" | PA=24° | mBortle=? | mApt=250mm | Period=8.6y | Spec=A5III, K5V | Color=white, orange |) The brightest star in the Ophiuchus constellation, this star system is located 48.6 light years away. The component pair orbit at a distance of about 7 AU from each other. mBortle uncalculated since it is based on a 6" scope and a minimum of 250mm is required to resolve this pair.

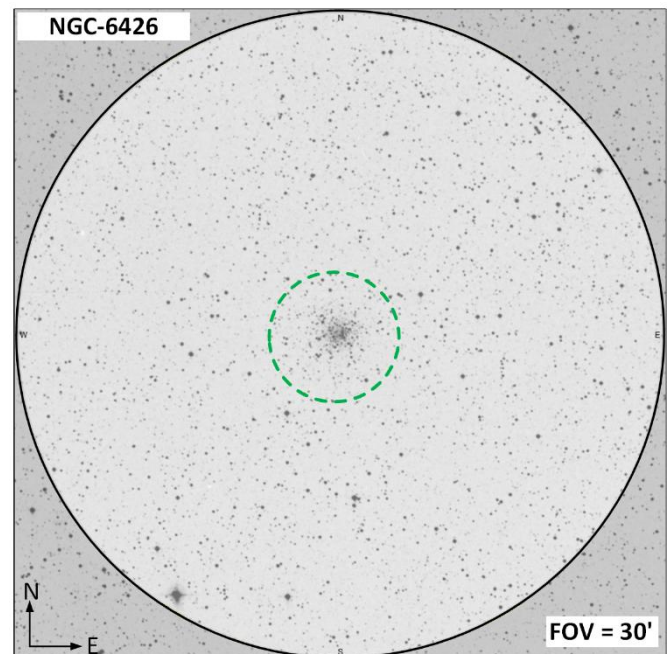
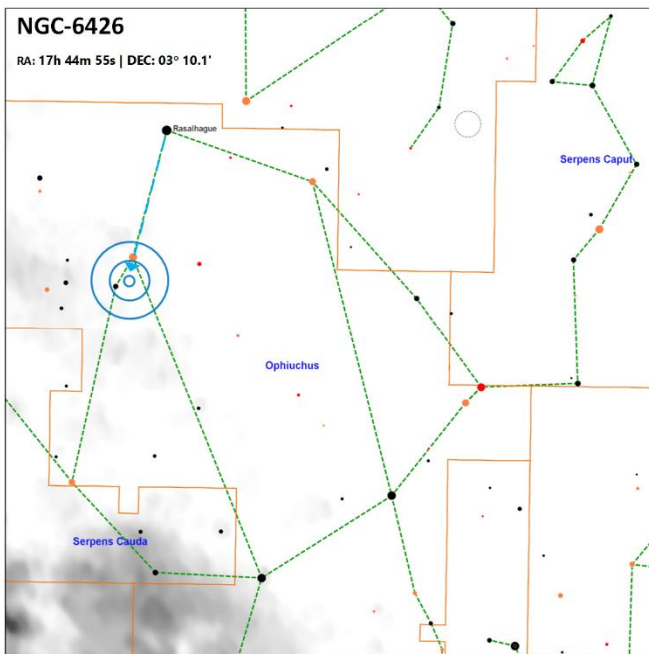


Constellation Guide

Messier 14 (GC || Mag=7.6 | Size=11.0' | SB=21.4 | mBortle=8 | mApt=50mm | MC=VIII |) Located 30,000 light years away with an estimated physical radius of 100 light years. Shapely-Sawyer Concentration class is VIII – Rather loosely concentrated towards the center.

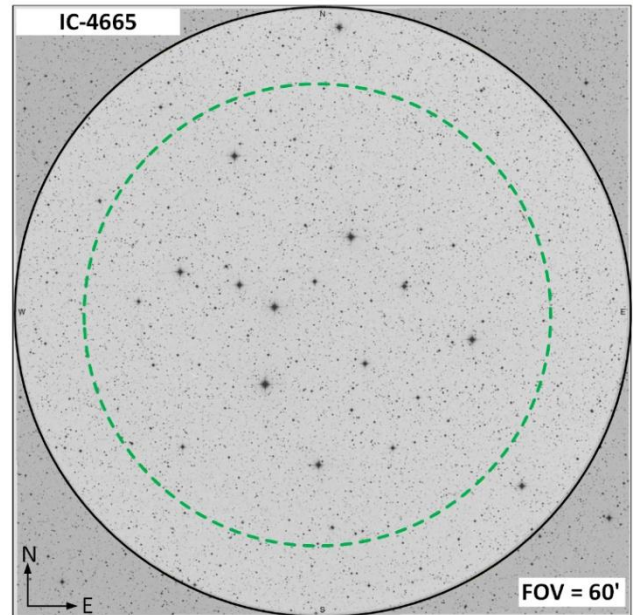
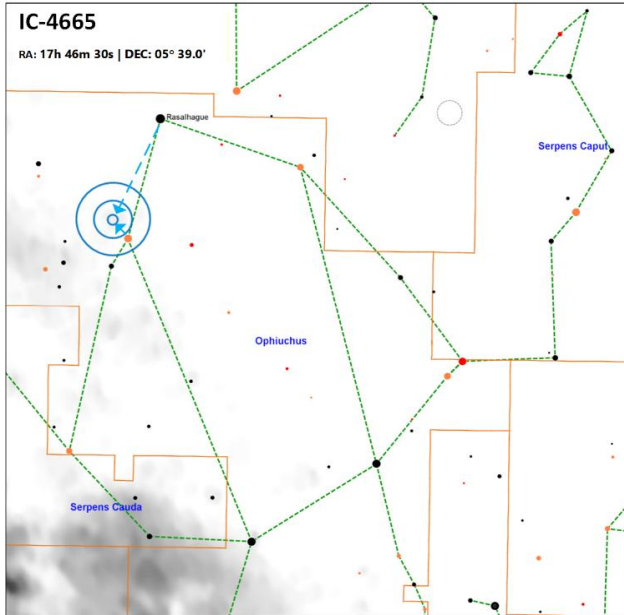


NGC 6426 (GC || Mag=11.0 | Size=4.2' | SB=22.8 | mBortle=2 | mApt=200mm | MC=IX |) Located 67,000 light years away with a physical diameter of 82 light years and with an estimated age of estimated at 13 billion years old is one of the oldest and metal-poor clusters in the Milky Way. Shapely-Sawyer Concentration class is IX – Loose towards the center.

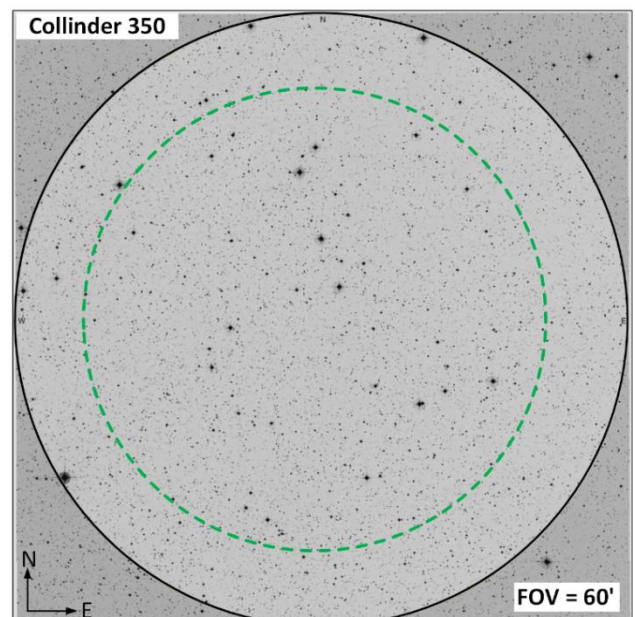
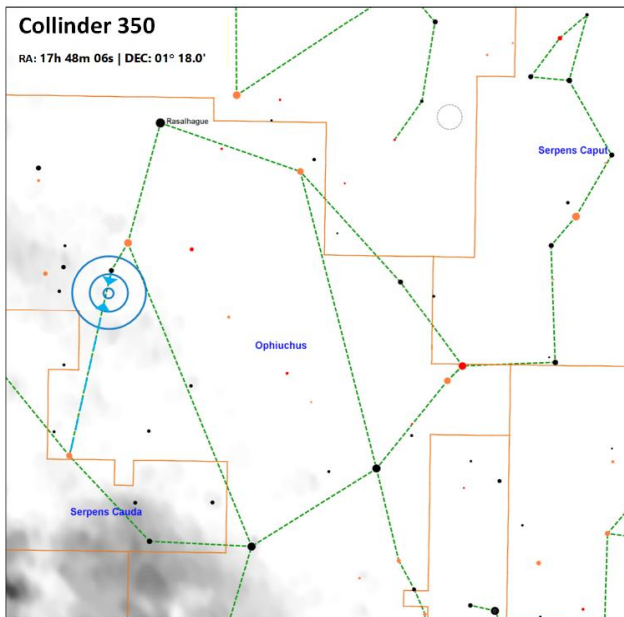


Constellation Guide

IC 4665 (OC || Mag=4.2 | Size=70' | mBortle=9 | mApt=50mm | MC=III2p |) One of the brighter open clusters that is not listed in the Messier or NGC catalogs. Views through binoculars show a clear cluster while close up telescope views may have difficulty identifying this as an open cluster. Trumpler class III- Detached cluster with no noticeable concentration, 2- A medium range of brightness between the stars in the cluster, p- Poor clusters with less than 50 stars.

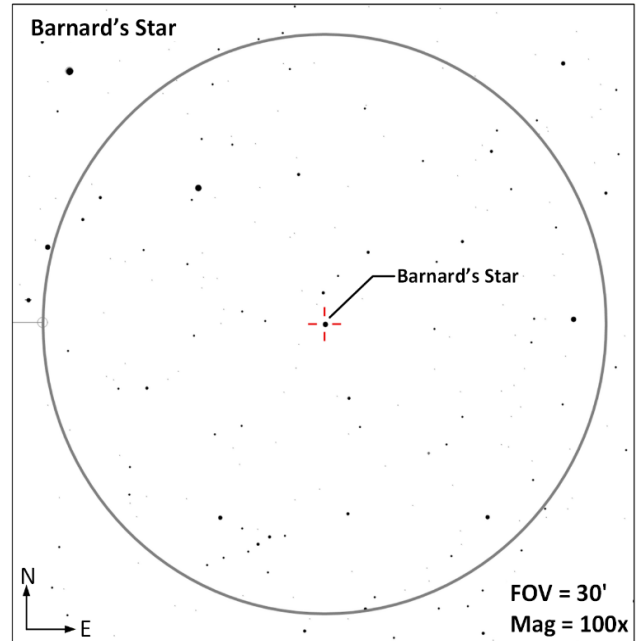
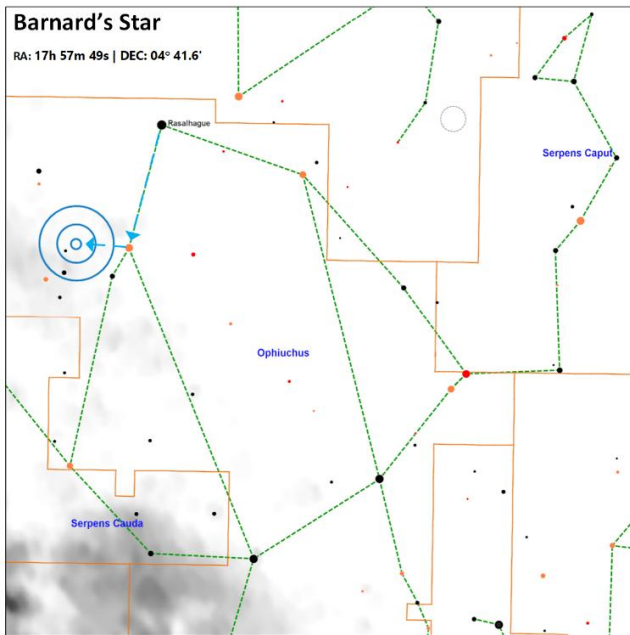


Collinder 350 (OC || Mag=6.1 | Size=39' | mBortle=9 | mApt=50mm | MC=III2m |) Located 913 light years away and with a physical diameter of 10 light years, it is suspected that this open cluster may be colliding with the open cluster IC-4655. It is unclear whether the two clusters will merge as a result of the collision. Trumpler class III- Detached cluster with no noticeable concentration, 2- A medium range of brightness between the stars in the cluster, m- Medium rich clusters with 50 – 100 stars.

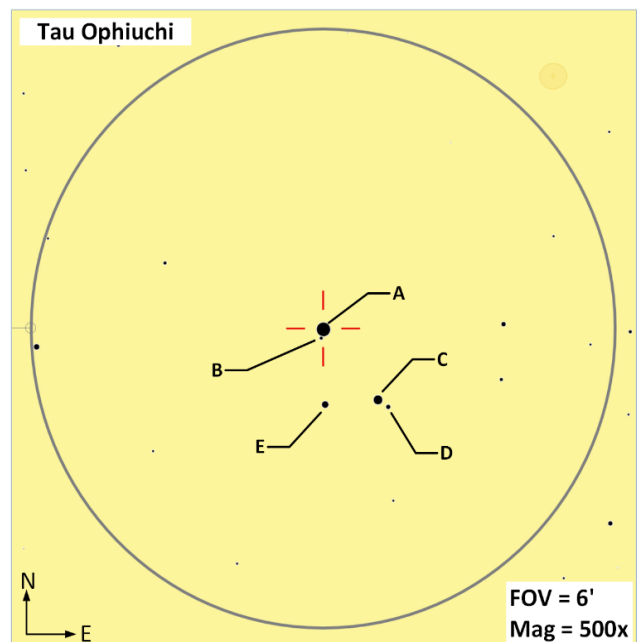
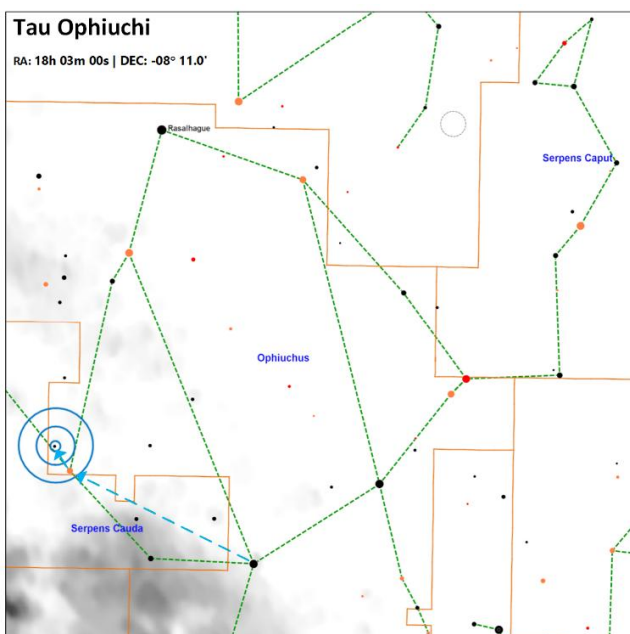


Constellation Guide

Barnard's Star (Star || Mag=9.6 | Spec=M4V | Color=red |) A small red dwarf star at a distance of 5.96 light years is the fourth nearest known star to earth. This star has a diameter of 19% of our Sun's diameter and has an estimated age of 7 to 12 billion years and may be among the oldest stars in the Milky Way.

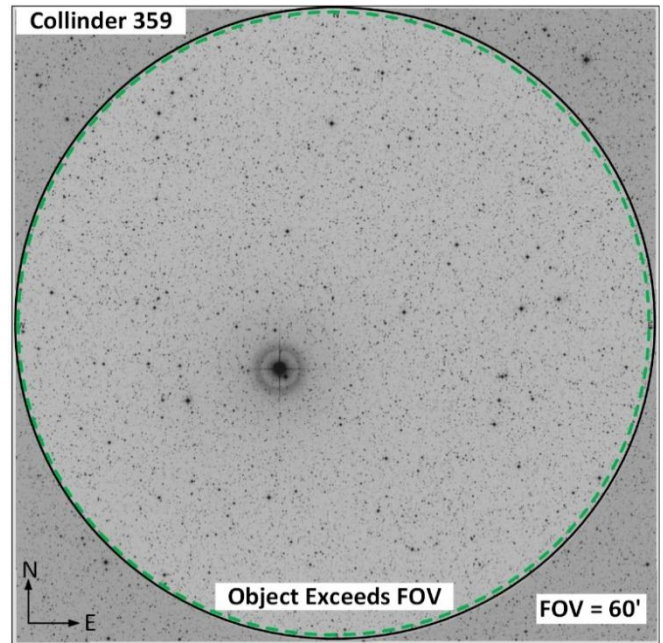
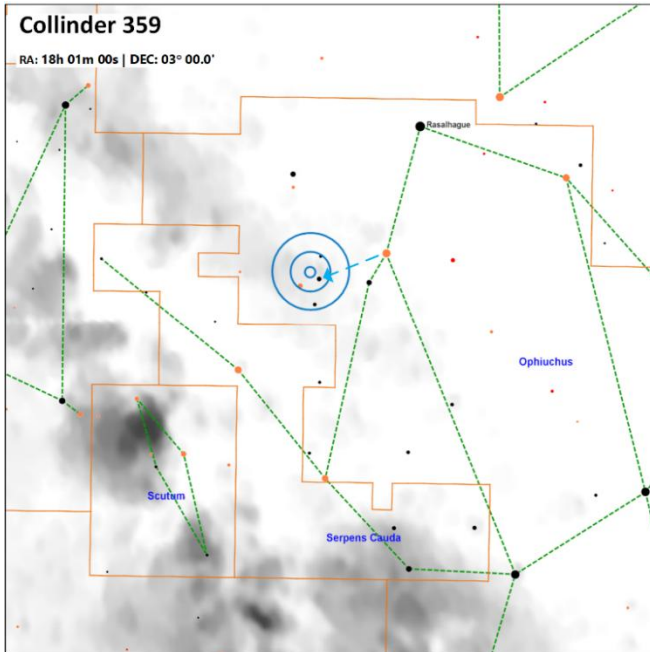


67 Ophiuchi (MS-5 || AB| Mag=4.0,13.7 | Sep=6.6" | PA=196° | mBortle=? | mApt=250mm | Spec=B5Ib, ? | Color=blue-white, ? || AC| Mag=4.0,8.1 | Sep=54.7" | PA=143° | mBortle=9 | mApt=50mm | Spec=B5Ib, B2V | Color=blue-white, blue-white || AE| Mag=4.0,11.0 | Sep=45.1" | PA=180° | mBortle=9 | mApt=70mm || CD| Mag=4.0,12.5 | Sep=6.2" | PA=120° | mBortle=4 | mApt=150mm || CE| Mag=4.0,11.0 | Sep=33.3" | PA=226° | mBortle=9 | mApt=70mm |) An interesting multiple star system with 5 visible components. However, only the AB components have been proven physically associated while the physical association of the remaining components remains uncertain.

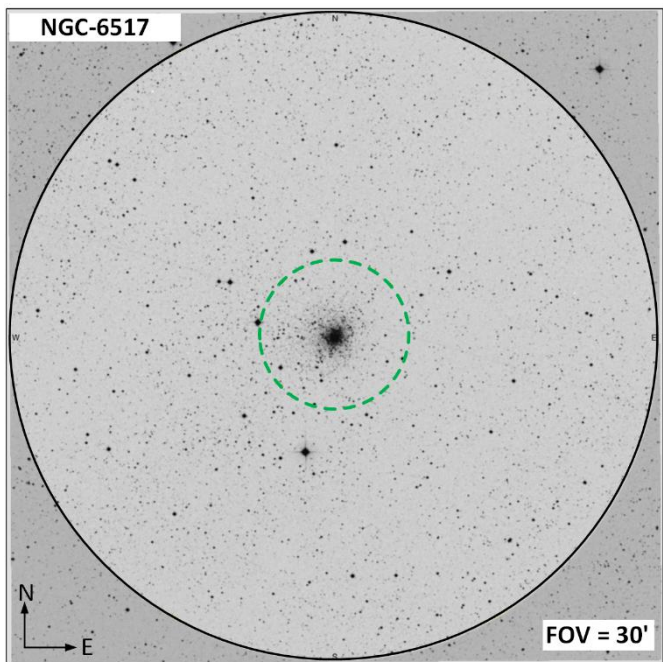
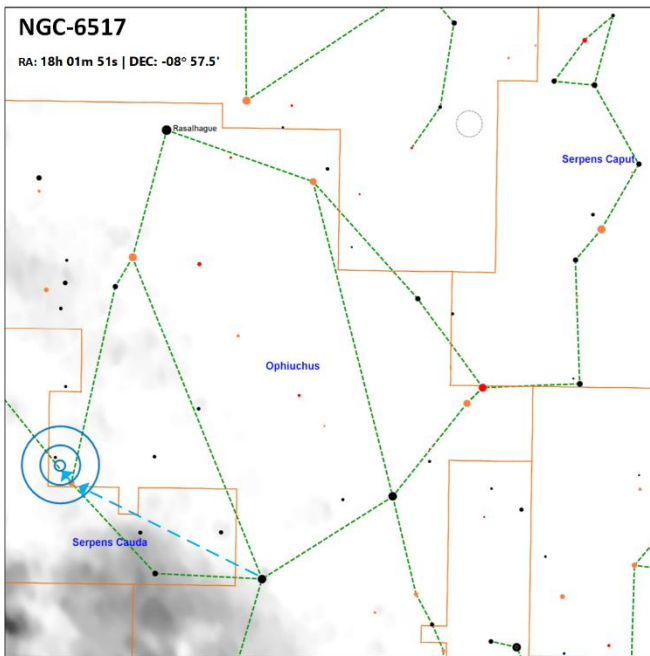


Constellation Guide

Collinder 359 (OC || Mag=3.0 | Size=240' | mBortle=9 | mApt=50mm | MC=III3m |) Located 812 light years away and with a physical diameter of 57 light years. The Trumpler class is III-Detached cluster with no noticeable concentration, 3- Cluster is composed of bright and faint stars, m- Medium rich clusters with 50 – 100 stars.

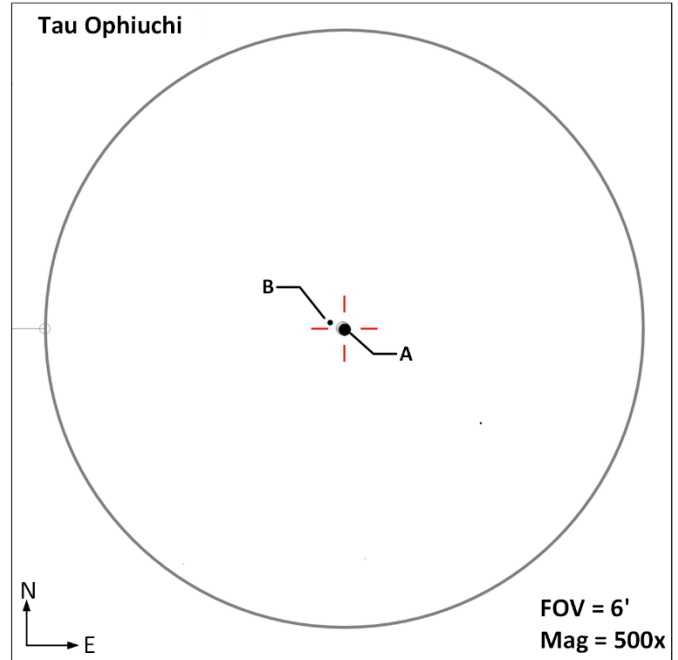
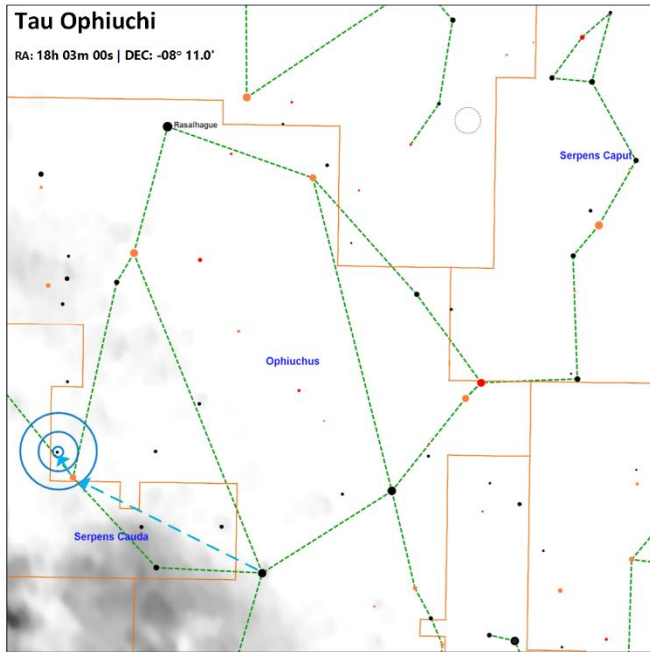


NGC 6517 (GC || Mag=10.2 | Size=4.0' | SB=21.9 | mBortle=5 | mApt=70mm | MC=IV |) Located 35,000 light years away with a physical diameter of 40 light years. Shapely-Sawyer Concentration class is IV – Intermediate rich concentrations.

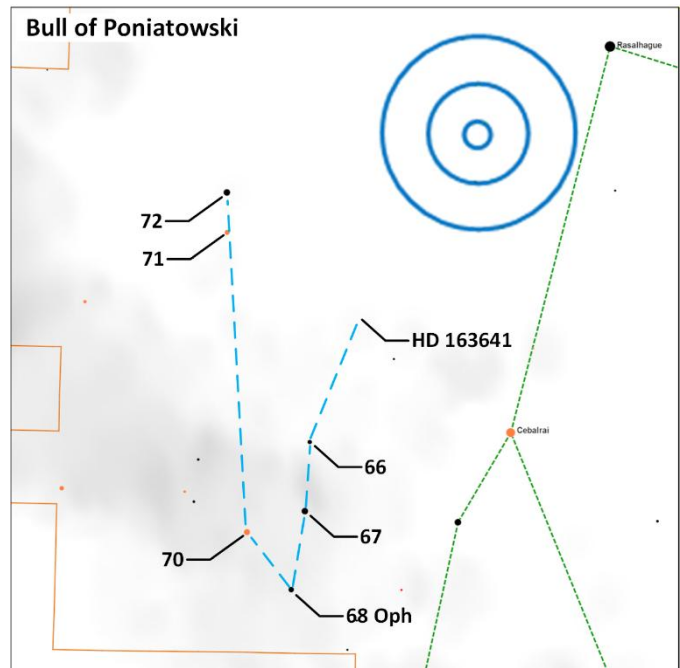
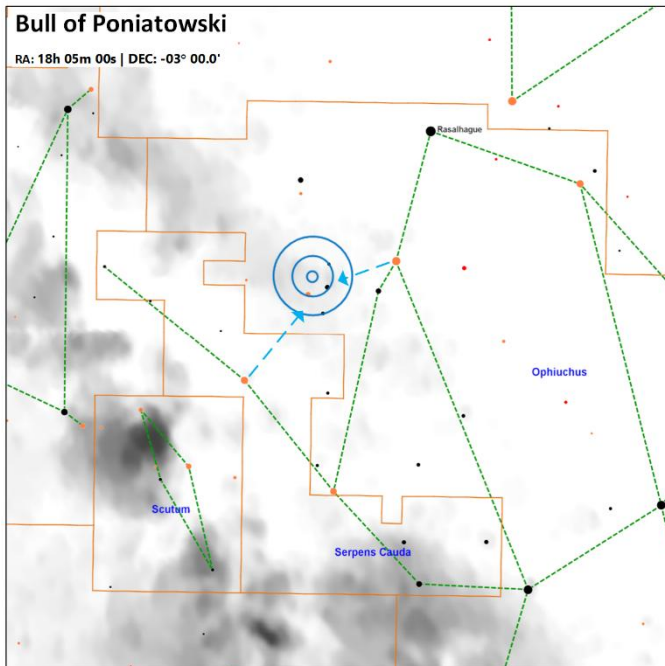


Constellation Guide

Tau Oph (DS || AB | Mag=5.3,6.0 | Sep=1.4" | PA=292° | mBortle=9 | mApt=102mm | Period=280.0y | Spec=F2V, F5V | Color=yellow-white, yellow-white) Located 167 light years away the AB components orbit each other at a distance of about 100 AU and have an orbital period of about 280 years.

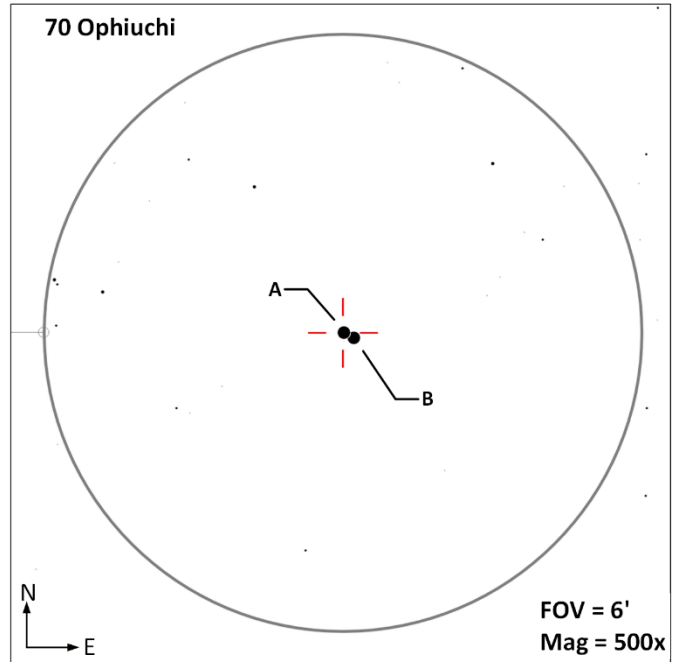
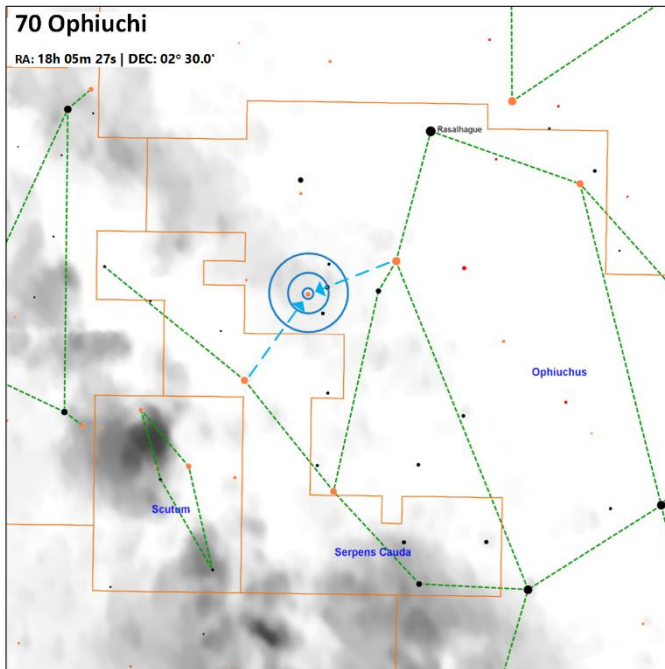


Bull of Poniatowski (AS || Size=210' | Stars= 7) A constellation created in 1777 by Marcin Poczubut to honor the then king of Poland Stanislaus Poniatowski. This asterism resembles the head of Taurus the bull. The constellation is no longer recognized and is part of Ophiuchus and Aquila.

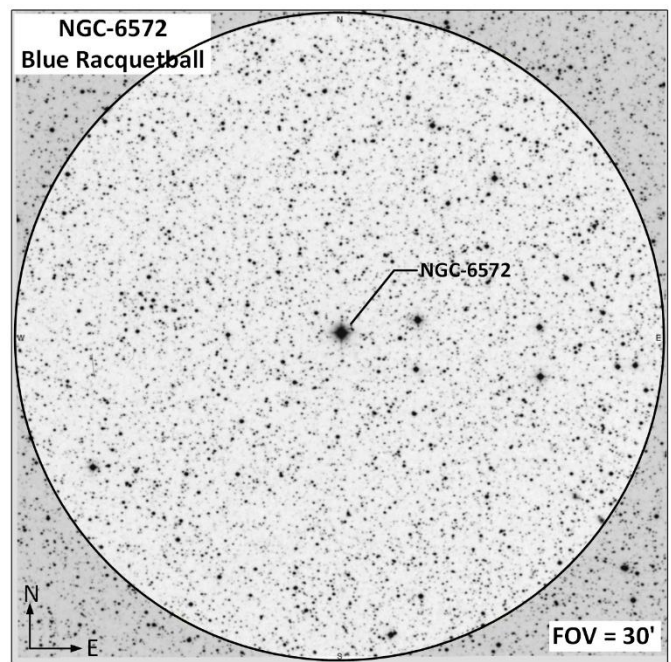
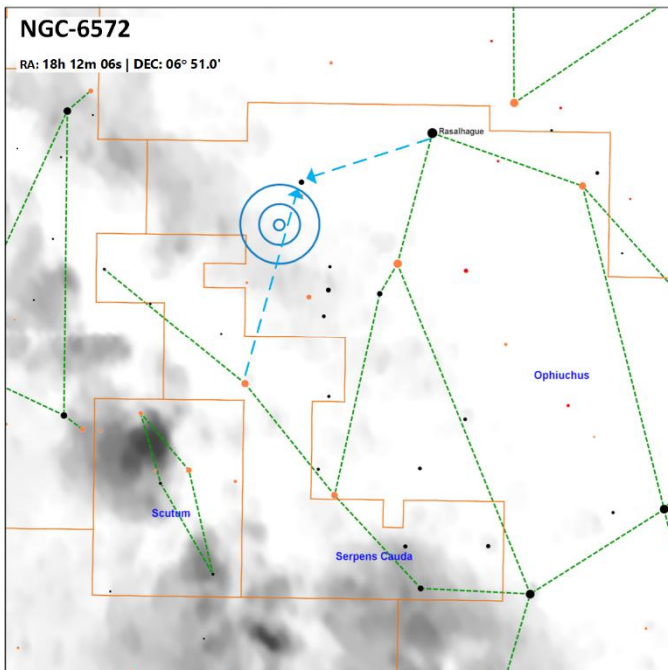


Constellation Guide

70 Ophiuchi (DS | AB | Mag=4.2,6.2 | Sep=5.0" | PA=140° | mBortle=9 | mApt=50mm | Period=88.4y | Spec=K0V, K4V | Color=orange, orange-red |) This system appears in a number of lists for best and most colorful star systems. It is located 16.6 light years away. The AB components have an orbital period of 88.4 years. Reported colors are “pale topaz and violet”.

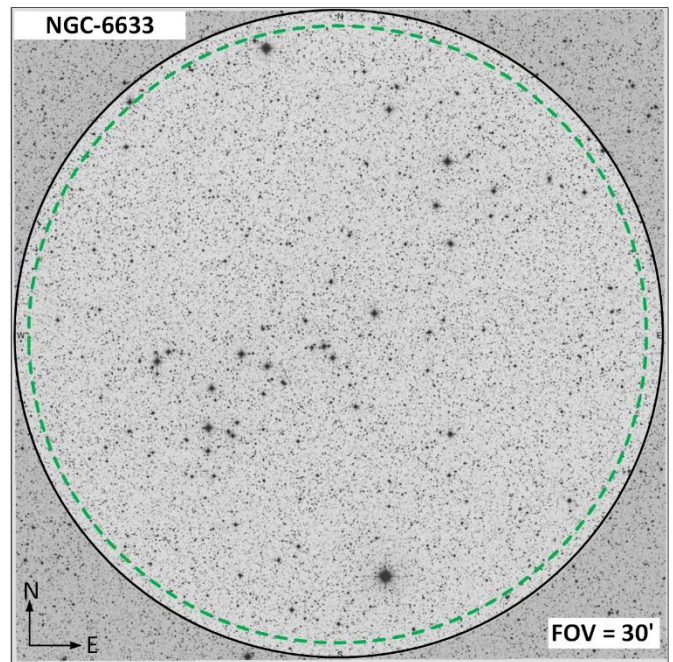
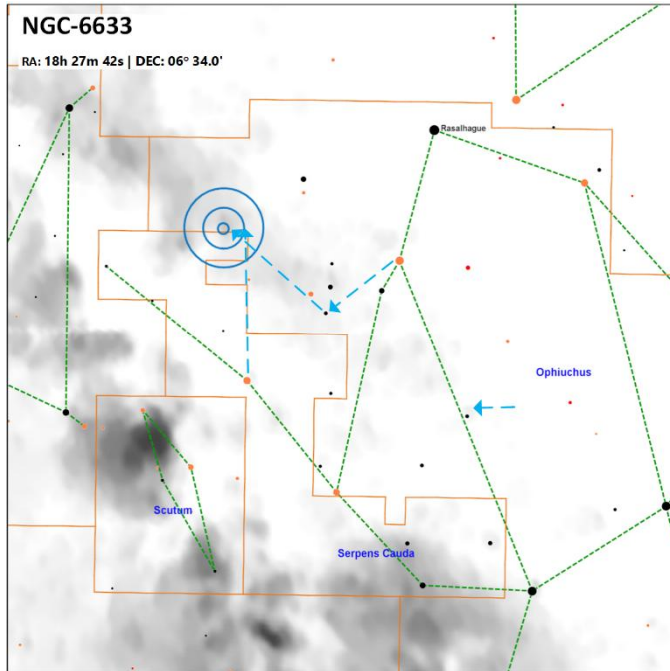


NGC 6572 (PN || Mag=8.1 | Size=0.25' | SB=13.7 | mBortle=9 | mApt=50mm | MC=Elliptical |) The Blue Racquetball nebula is located 2,400 light years away. This planetary will appear as a colored star in small telescopes but higher magnification may reveal its shape. This is a relatively young nebula that began to shed its gasses a few thousand years ago. Utilization of an OIII or Ha filter may assist in identifying this object.

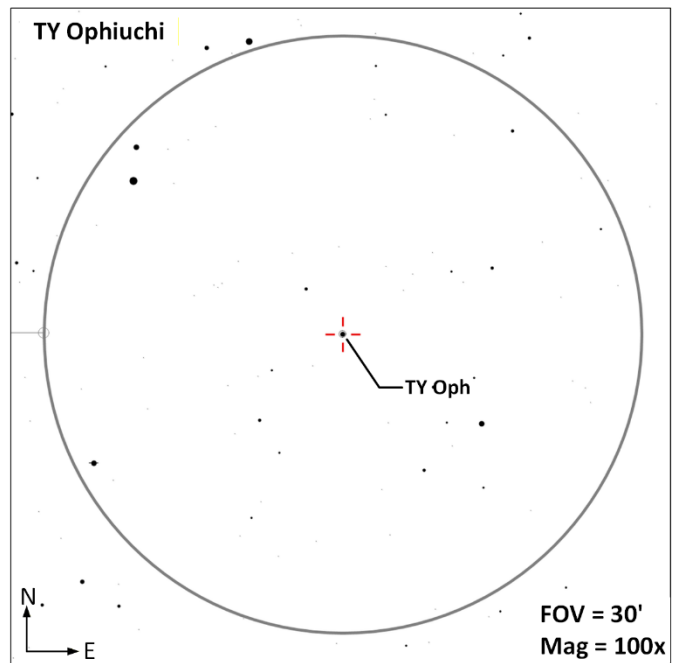
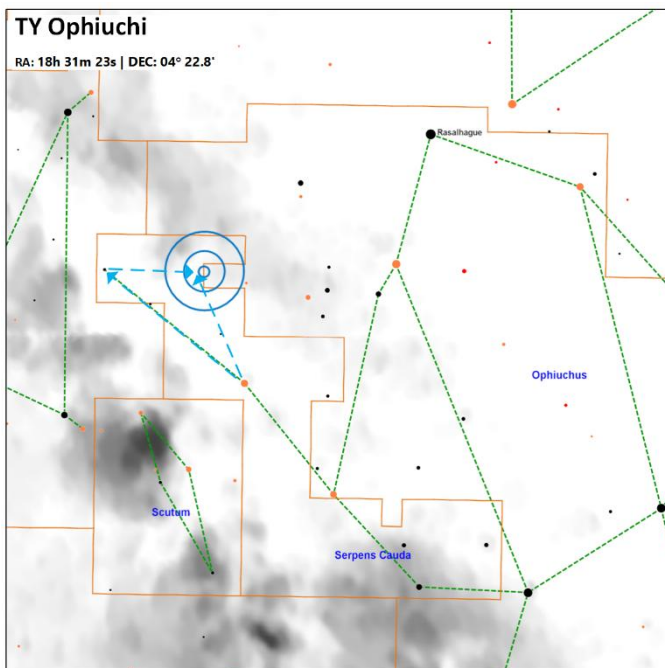


Constellation Guide

NGC 6633 (OC || Mag=4.6 | Size=27' | mBortle=9 | mApt=50mm | MC=III2m |) A large open cluster covering the area of about the full moon. This cluster is located 1,200 light years away and has an estimated age of 550 million years. Trumpler classification is III- Detached cluster with no noticeable concentration, 2- A medium range of brightness between the stars in the cluster, m- Medium rich clusters with 50 – 100 stars



TY Ophiuchi (CS || Magnitude Range= 6.5 to 9.8 | Spec=C5,5 | Color=red |) This carbon star is located 308 light years away and has a magnitude variation of 12.7 to 15.1 over a period of an unknown period. It has a B-V Color value of +5.6 so this should be a deep red color star well worth checking out even though it may be quite dim.



Blank

Constellation Guide

Observation Log: Ophiuchus (Oph)

Equipment Config A: _____ Config B: _____

Notes: _____

Date	Time	Config	Target	Notes

Date	Time	Config	Target	Notes

Constellation Guide

Observation Log: Ophiuchus (Oph)

Equipment Config A: _____ Config B: _____

Notes: _____

Date	Time	Config	Target	Notes

Date	Time	Config	Target	Notes

Constellation Guide

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 Ratledge)
- [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](#)
 - [Claude AI](#) – Some Stats for targets

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