

Constellation Guide

Constellation: Scutum (Sct)

Evening Visibility: **June – August**

Opposition: July

Latitude Visibility: **+80° to -90°**

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

Constellation Targets

Scutum Star Cloud, HD-169392, HR-6946, IC-1287, [NGC-6649](#), [NGC-6664](#), RX Scuti, B-103, TR-34, TR-35, Button Hook, Essertoo String, [M-26](#), HD-173457, B-104, HD-174005, B-108, [S Sct](#), [M-11](#), B-112, [NGC-6712](#), B-118, IC-1295, T Sct

Mythology/Back Story

Introduced in 1690 by the Polish Astronomer Johannes Hevelius as Scutum Sobiescianum, Latin for “Shield of Sobieski”. This constellation was named in honor of Polish King Jan III Sobieski, who led the victorious relief at the Battle of Vienna in 1683. The constellation name was eventually simplified to Scutum.

The Scutum Star Cloud

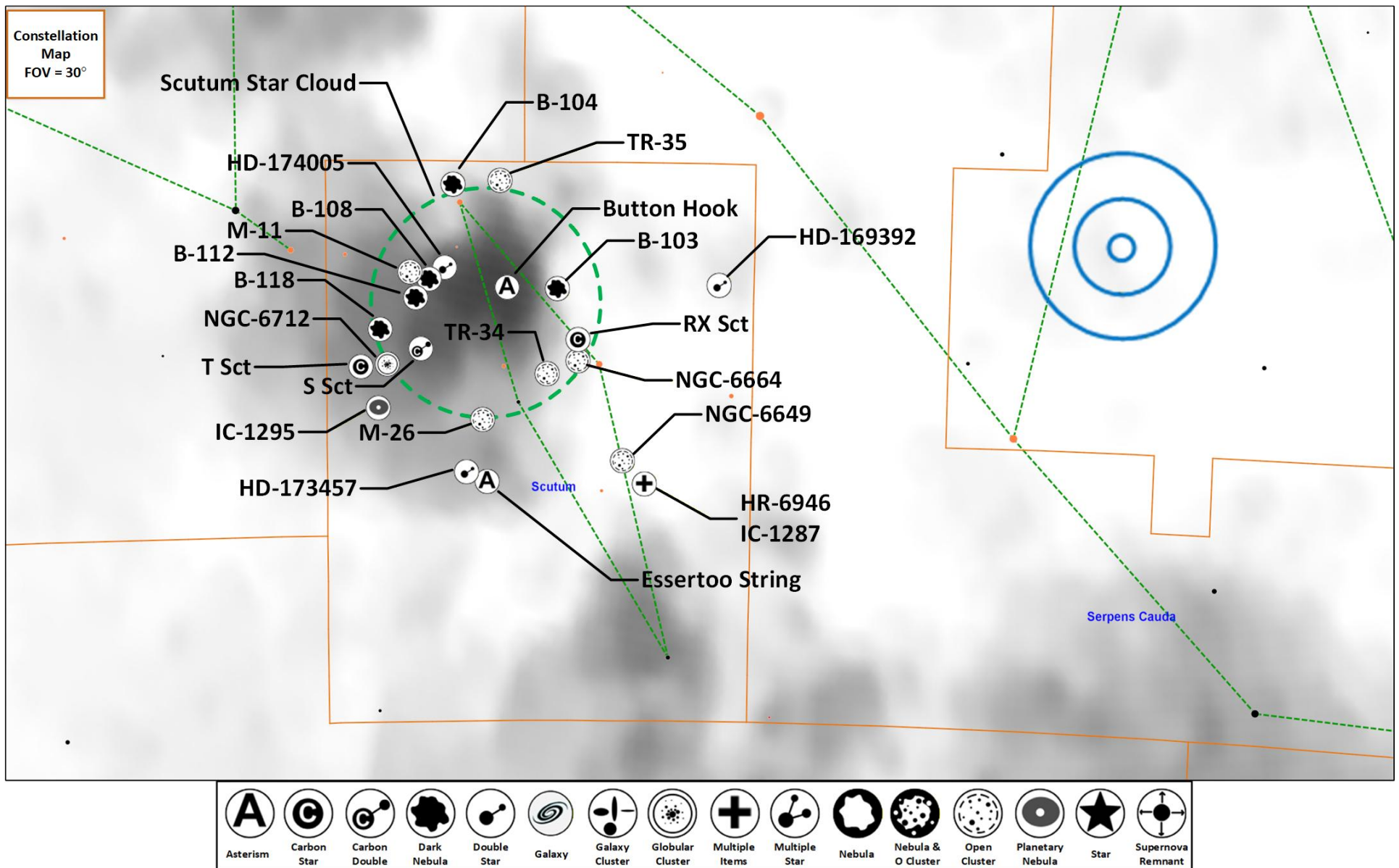
One of the brightest sections of the Milky Way, often called the “Gem of the Milky Way”, the Scutum Star Cloud is a great binocular target for viewing and highlighted in more detail later in this guide.

Constellation Highlights

This is a small constellation, but has some interesting objects including the Scutum Star Cloud and a number of dark nebulae.

- **Scutum Star Cloud** – Binocular wonder
- **Barnard 108** (DN) – Small DN in field of stars
- **S Scuti** (CS, DS) – Carbon star and double star
- **Messier 26** (OC) – Open Cluster
- **Messier 11** (OC) – Wild Duck Cluster
- **NGC-6712** (GC) – Globular Cluster

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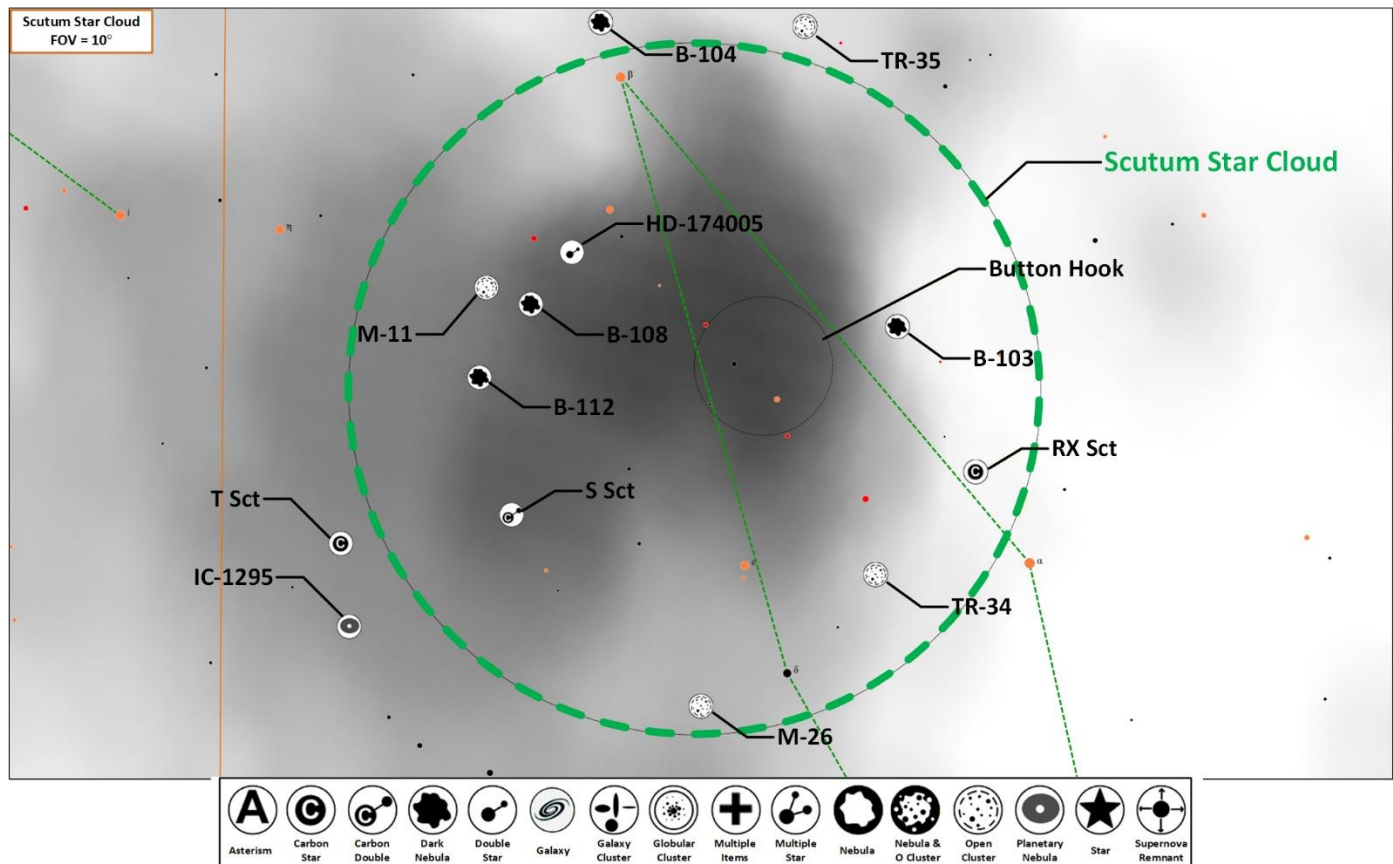
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Object (Type)	Links	Gear	Aliases	Stats
Scutum Star Cloud		B	Gem of the Milky Way	Size $\approx 5^\circ$ Center= RA: 18h 45m, Dec: -07°
HD 169392 (DS)	1	T	SAO-142290; HIP 90239; STF 2313; WDS18247-0636; Σ 2313	AB Mag=7.5,9.0 Sep=5.9" PA=195° mBortle=9 mApt=50mm Spec=G0IV, G0V-G2IV Color=yellow, yellow
HR 6946 (DS)	1	T	SAO-161569; HIP 90804; HD 170740; HR 6946; ADS 11414; BD-10 4713; WDS18314-1048; Σ 2325; STF 2325; GC 25258	AB Mag=5.8,9.3 Sep=12.4" PA=257° mBortle=9 mApt=50mm Spec=B2V, ? Color=blue-white, ?
IC-1287 (EN)		B, T	LBN 75	Size=20'x10'
NGC-6649 (OC)	1	T	Cr 384; Mel 206; OCL 60; Lund 847; OCl 66; Raab 133, Collinder 384;	Mag=8.9 Size=6' SB=21.4 mBortle=9 mApt=180mm MC=I3m
NGC-6664 (OC)	1	T	C 1834-082; Cr 385; Mel 209; OCL 68; Collinder 385;	Mag=7.8 Size=6' SB=21.8 mBortle=9 mApt=102mm MC=III2m
RX Scuti (CS)		B, T	HIP 91275; HD171804; 2MASS J18370408-0736120; BD-07 4633; CCCS 2620; HV 3251; IRC -10441; J183704.08-073611.; PPM201929; TYC 5691-1157-1; Sky18370019	Magnitude Range= 8.9 to 11 Spec=C5,6-C6,7 (or M7-M8III) BV=+2.86 Color=red
Barnard 103 (DN)		B, T	LDN 497; TGU H231 P4; B103	Size=40' mBortle=4 mApt=50mm Opacity=6
Trumpler 34 (OC)		T	C 1837-085; Cr 387; OCL 69; Lund 852; Tr 34; Collinder 387	Mag=8.6 Size=5' SB=20.7 mBortle=4 mApt=150mm MC=IV2m
Trumpler 35 (OC)			C 1840-041; Cr 388; OCISM 18; OCL 83; Lund 857; Collinder 388	Mag=9.2 Size=6' SB=21.7 mBortle=? mApt=200mm MC=II2p
Button Hook (AS)		B	Centering Star = HR 7024; SAO-142525; HIP 91751	Size= 75' x 45'
Essertoo String (AS)		T	Centering Star = HD 173250; SAO-161783; HIP 91961 Lorenzin 5	Size= 6' Stars=12
Messier 26 (OC)	1	T	NGC-6694; C 1842-094; Cr 389; Mel 212; OCL 67; M26	Mag=8.2 Size=14' SB=22.6 mBortle=6 mApt=130mm MC=II2r
HD 173457 (DS)	1	T	SAO-161805; HIP 92062; WDS18459-1030; Σ 2373; STF2373	AB Mag=7.4,8.4 Sep=4.4" PA=337° mBortle=9 mApt=50mm Color=yellow-white, yellow-white
Barnard 104 (DN)		B, T	CB 155; LDN 532; [CB88] 155; [DB2002b] G28.41-1.16; B104	Size=16'x1' mBortle=4 mApt=60mm Opacity=5
HD 174005 (DS)	1	B, T	HIP 92296; HD 174005; WDS18487-0600; Σ 2391; STF 2391	AB Mag=6.5,9.6 Sep=38" PA=332° mBortle=9 mApt=50mm Spec=A7V kA2 mA2 (Iam Boo), ? Color=white, ?

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Object (Type)	Links	Gear	Aliases	Stats
Barnard 108 (DN)		T	LDN 534; B108	Size=3' mBortle=4 mApt=102mm Opacity=3
S Scuti (CS, DS)	1 , 2	B, T	SAO-142674; HIP 92442; HD 174325; BD-08 4794; BU 969; CCCS 2666	Magnitude Range= 6.6 to 7.3 Spec=C6 BV=+2.71 Color=red AB Mag=6.8,12 Sep=14" PA=238° mBortle=8 mApt=114mm Spec=C6 Color=red
Messier 11 (OC)	1	T	NGC-6705; C 1848-063; Cr 391; Mel 213; OCL 76; Wild Duck Cluster; M11	Mag=6.3 Size=14' SB=20.5 mBortle=9 mApt=50mm MC=II2r
Barnard 112 (DN)		B, T	LDN 503; B112	Size=20' mBortle=4 mApt=50mm Opacity=6 (positional)
NGC-6712 (GC)	1	T	C 1850-087; GCl 103; ESO 594-SC8	Mag=8.2 Size=7.2' SB=21.1 mBortle=9 mApt=50mm MC=IX
Barnard 118 (DN)		T	B118; LDN 509; P 63	Size=3.5'x2' mBortle=4 mApt=50mm Opacity=6
IC 1295 (PN)	1	T	ARO 8; IRAS 18519-0853; PK 025-04.1; PK 25-4.2; PN G025.4-04.7; VV 213	Mag=12.5 Size=1.4' SB=21.9 mBortle=? mApt=200mm MC=Round (multi-shell)
T Scuti (CS)		T	HD 175377; CCCS 2678; GCVS750003	Magnitude Range= 8.9 to 10 Period=122 d Spec=M (Mira) BV=+2.70 Color=red

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The Scutum Star Cloud (Size $\approx 5^\circ$) A bright, dense knot of the Milky Way lying in the small constellation Scutum (the Shield), between Aquila to the north and Sagittarius to the south. It isn't a discrete object like a nebula or cluster — it's a window effect: a gap in the foreground interstellar dust of the [Great Rift](#) that lets you see straight down a long, richly populated line of sight toward the inner galaxy (the [Scutum–Centaurus arm](#) and the star fields toward the galactic center). The result is a glowing, almost granular patch that's one of the most rewarding binocular and rich-field targets in the summer sky. [E.E. Barnard](#) famously called it the "Gem of the Milky Way."

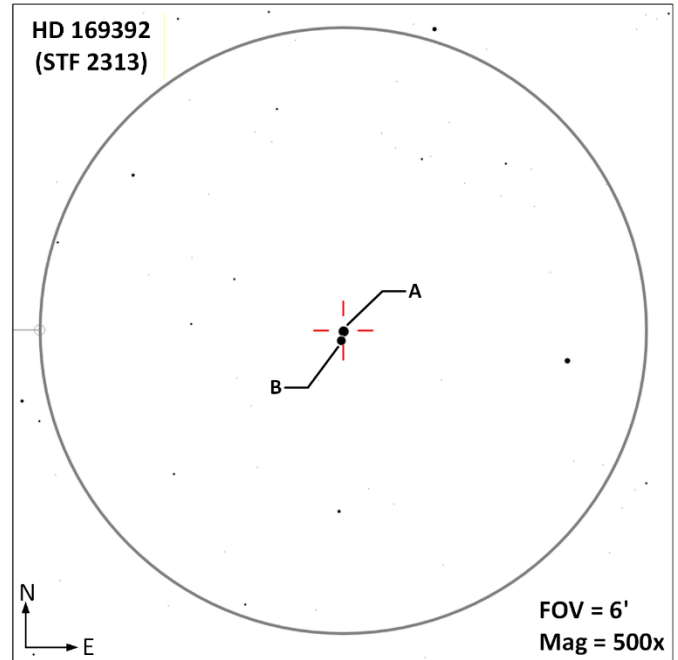
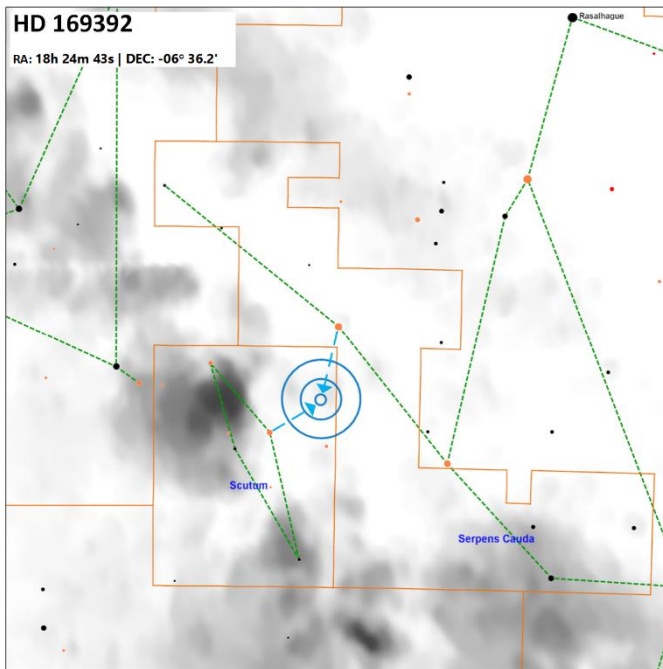
The cloud is genuinely superior in appearance to the larger [Great Sagittarius Star Cloud](#) from mid-northern latitudes, mostly because it sits roughly 20° higher in declination — so you're looking through much less atmosphere, with less extinction and low-altitude murk. Embedded in or near the cloud are [M11](#) (the Wild Duck Cluster, one of the finer open clusters), [M26](#), the globular [NGC 6712](#), while dark nebulae (B103, B108, B112) lace across it.

Because it's a diffuse Milky Way condensation rather than a catalog object, there's no single official center, and different sources place it slightly differently. The brightest condensation sits in the northern part of Scutum, roughly between α Scuti, R Scuti, and M11 at approximately: RA $\approx 18^{\text{h}} 45^{\text{m}}$, Dec $\approx -07^\circ$ (J2000); Centering Star HD 173278 (SAO-142572; HIP 91960).

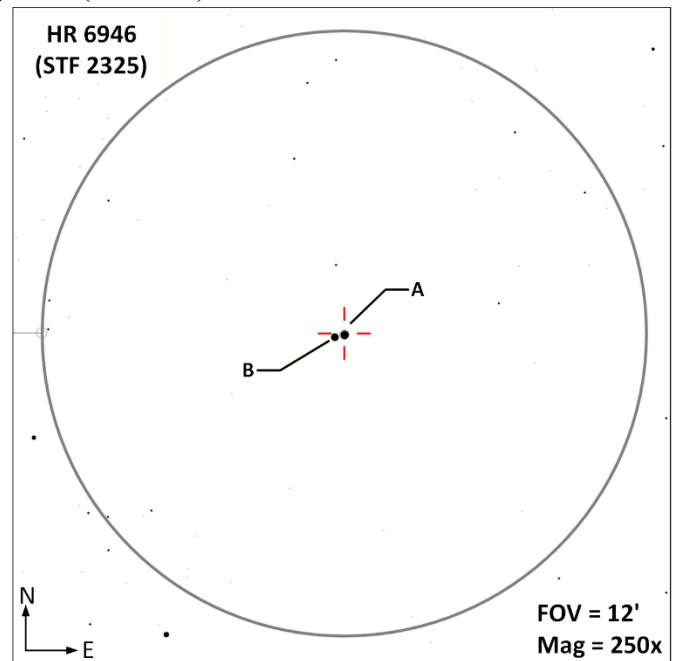
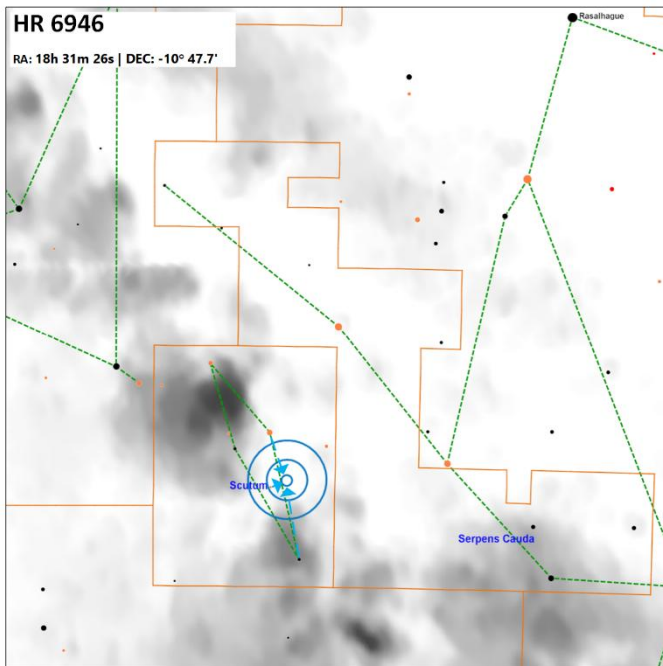
The map above shows the various objects featured in this guide that appear in the Scutum Star Cloud.

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HD 169392 (DS || **AB** | Mag=7.5,9.0 | Sep=5.9" | PA=195° | mBortle=9 | mApt=50mm | Spec=G0IV, G0V-G2IV | Color=yellow, yellow |) Located 236 light years away. The two components are currently separated by a distance of 420 AU. Described as a lemon-yellow star and a small green-white star with a tiny gap (Haas).

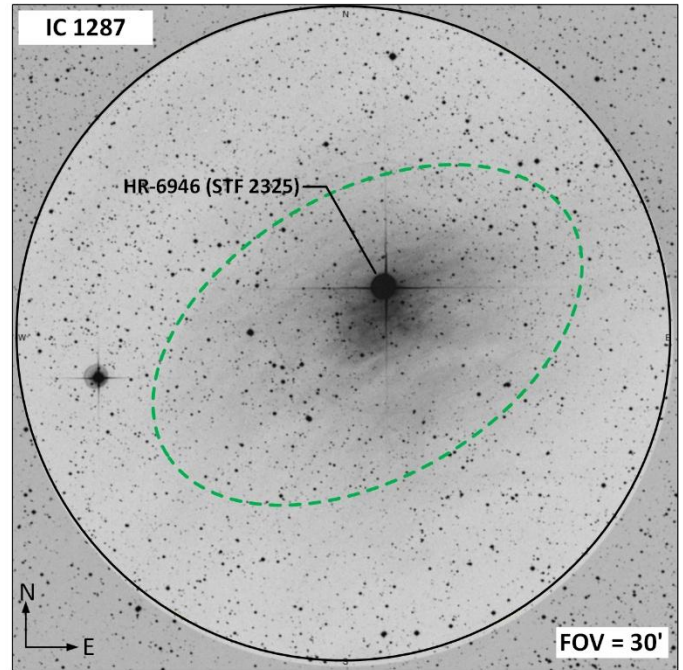
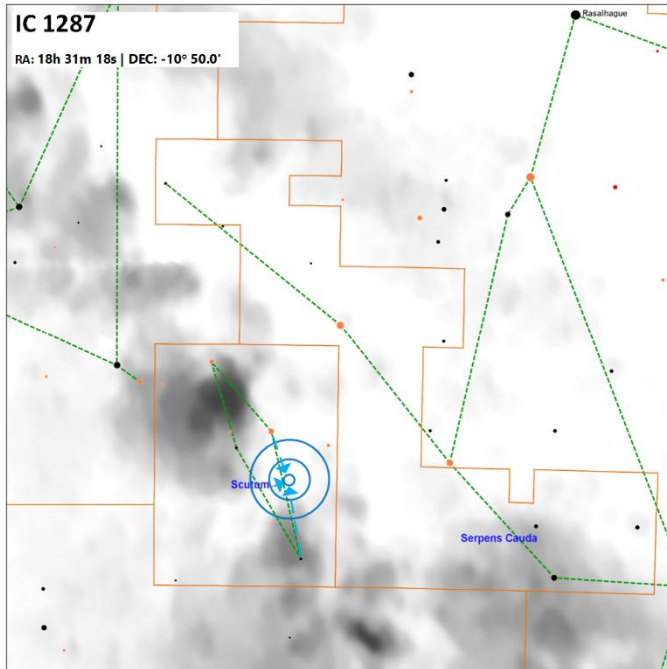


HR 6946 (DS || **AB** | Mag=5.8,9.3 | Sep=12.4" | PA=257° | mBortle=9 | mApt=50mm | Spec=B2V, ? | Color=blue-white, ? |) Located 1,076 light years away with a 9.3 magnitude companion located 4,092 AU from the primary star. A nebula appears to surround this star system (IC-1287) described below.

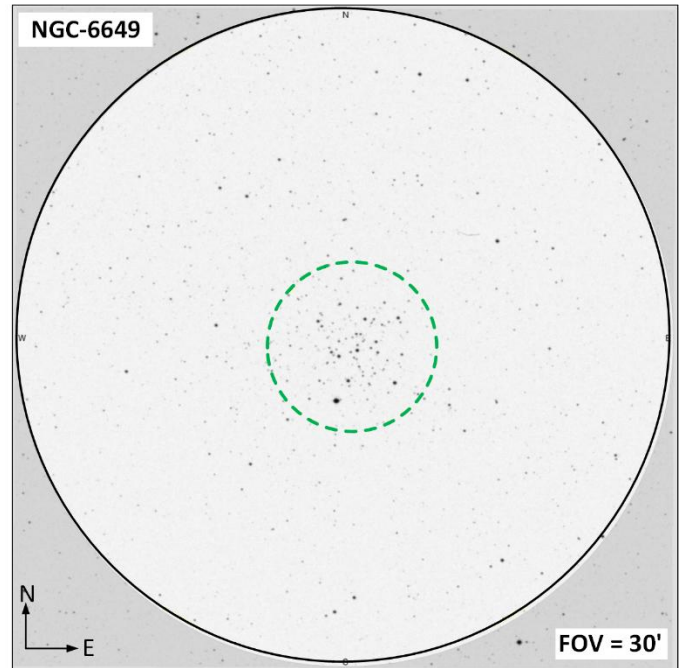
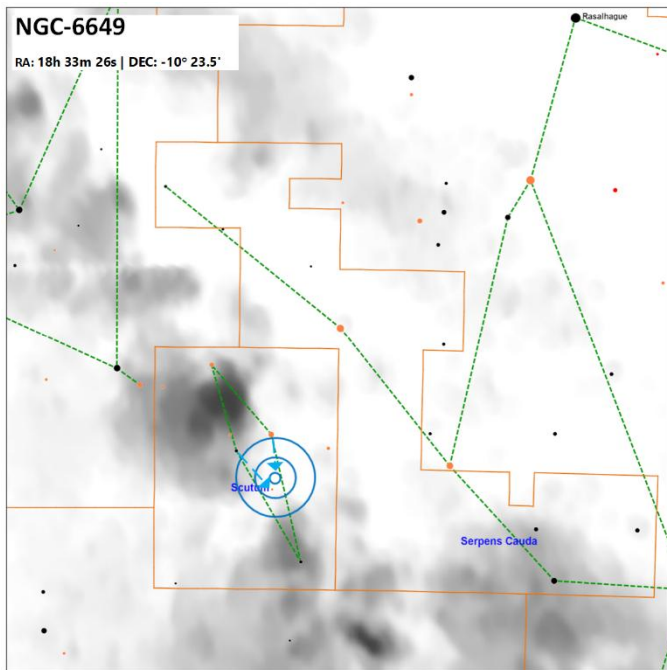


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IC-1287 (EN || | Size=20'x10' |) A bright nebula located 685 light years away with a physical size of 9 light years. The nebula appears to be encompassing the double star HR 6946; however, distance differences indicate that this is in the foreground to HR 6946.

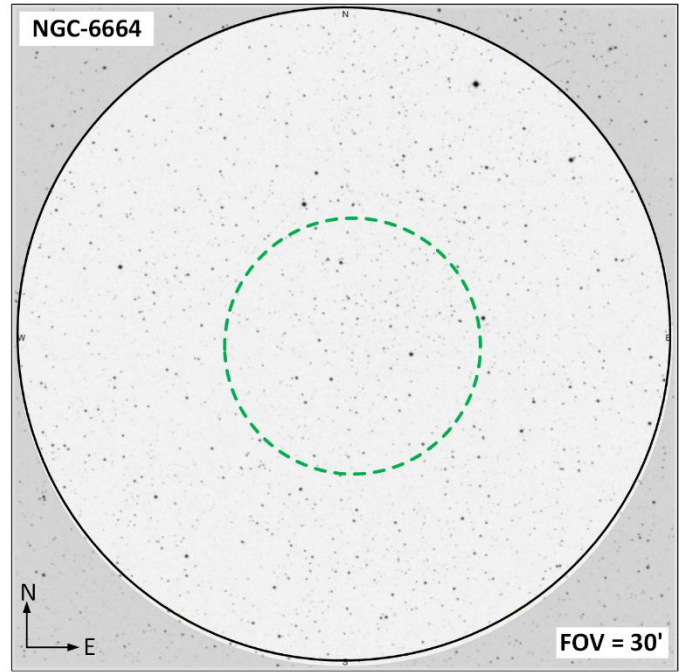
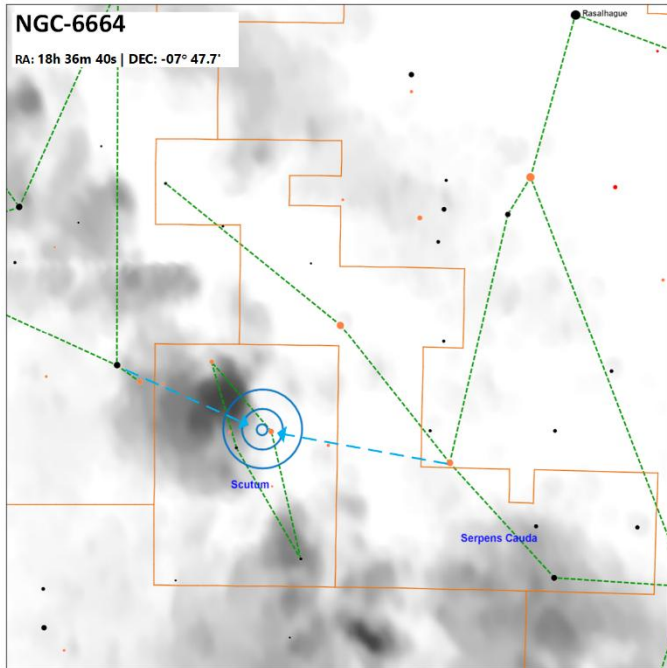


NGC-6649 (OC || | Mag=8.9 | Size=6' | SB=21.4 | mBortle=9 | mApt=180mm | MC=I3m |) Located 4,500 light years away with an estimated age of 60 million years this open cluster is estimated to have more than a thousand members. Trumpler class is I-Detached cluster with strong central concentration, 3-Composed of bright and faint stars, m-Medium rich cluster with 50-100 stars.

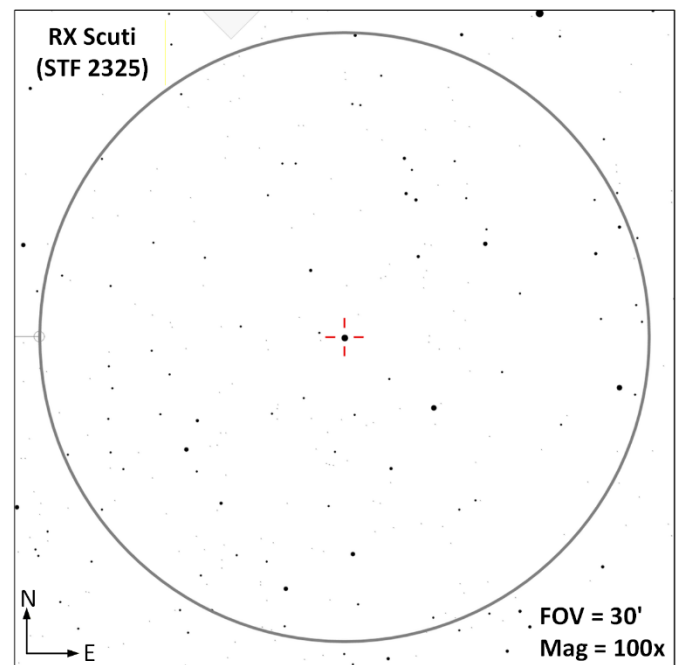
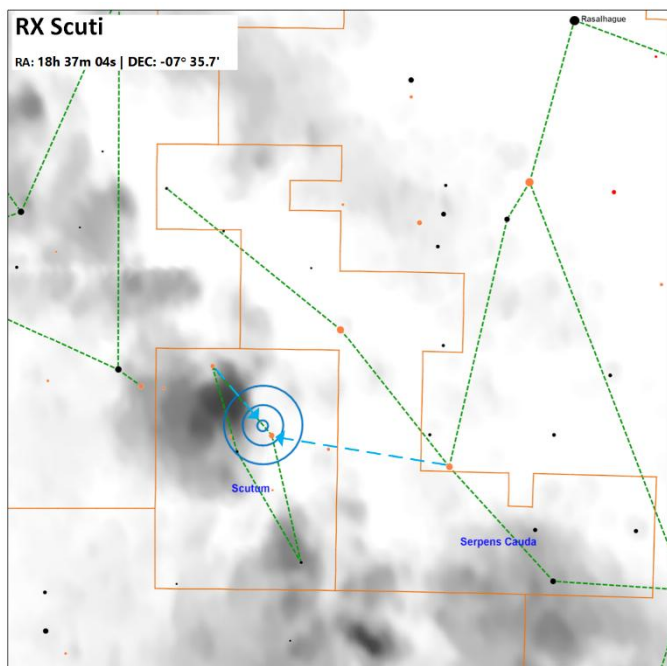


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NGC-6664 (OC || Mag=7.8 | Size=6' | SB=21.8 | mBortle=9 | mApt=102mm | MC=III2m) Located 3,800 light years away with a physical diameter of 13 light years, this cluster is located in the galactic plane, so it is difficult to distinguish it from the background stars. Trumpler Class is III-Detached cluster with no noticeable concentration, 2-Medium range of brightness between the stars in the cluster, m- Medium rich cluster with 50-100 stars.

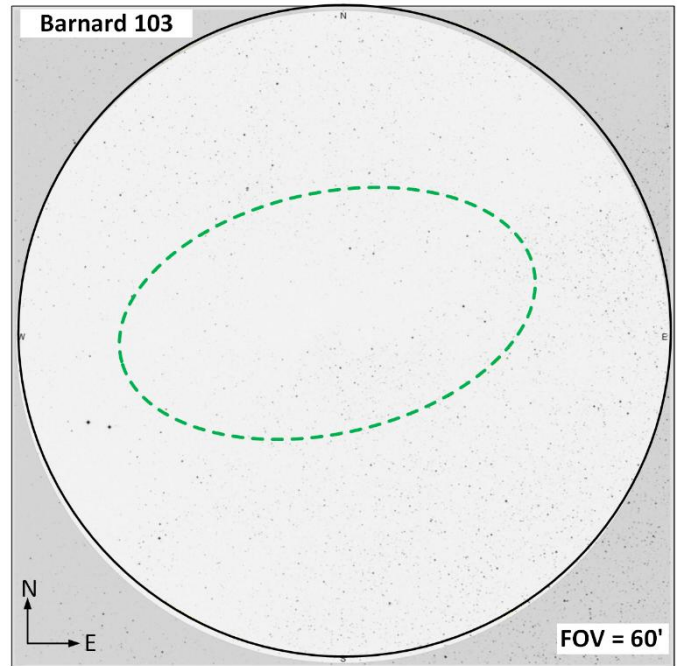
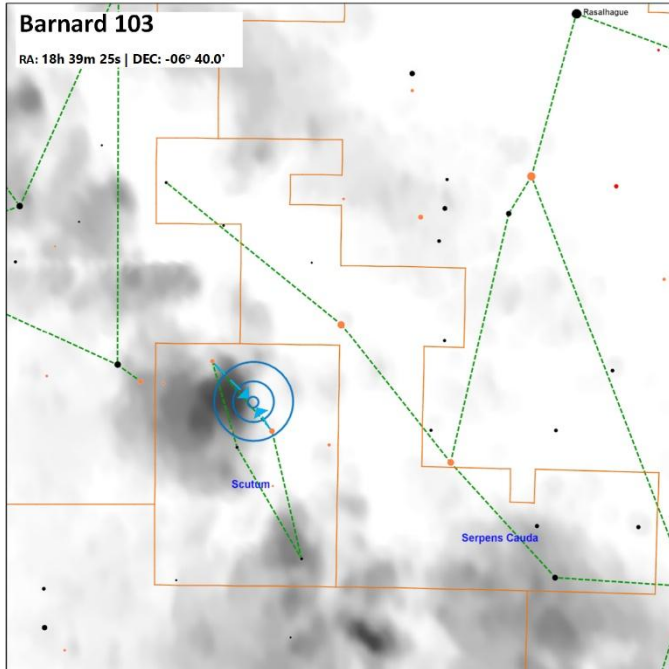


RX Scuti (CS || | Magnitude Range= 8.9 to 11 | Spec=C5,6-C6,7 (or M7-M8III) | BV=+2.86 | Color=red) A variable star located 1,412 light years away. This is a red bright giant star with an energy output 43 times that of the sun's luminosity.

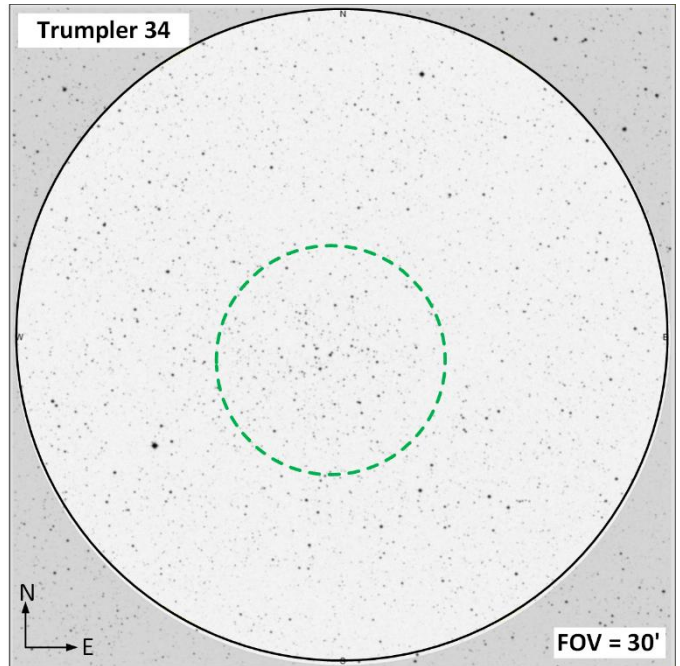
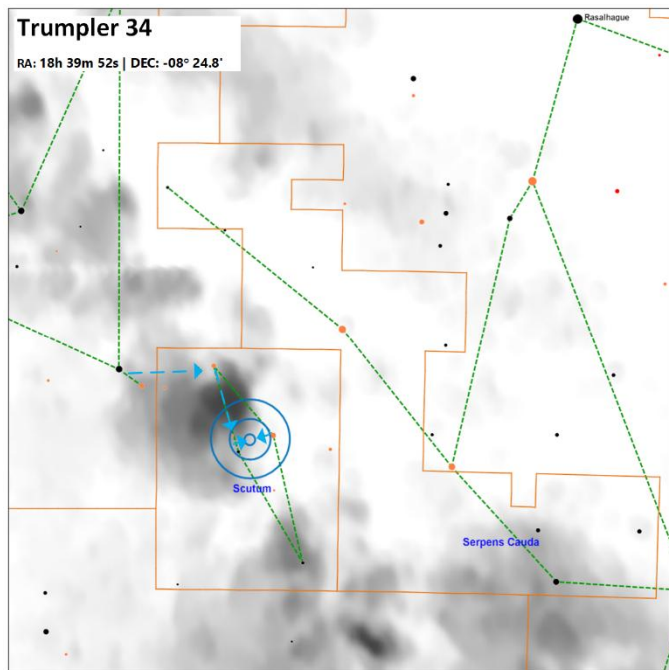


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Barnard 103 (DN || | Size=40' | mBortle=4 | mApt=50mm | Opacity=6 |) The estimated size of this dark nebula varies depending on source from 5'x3' up to 1°.

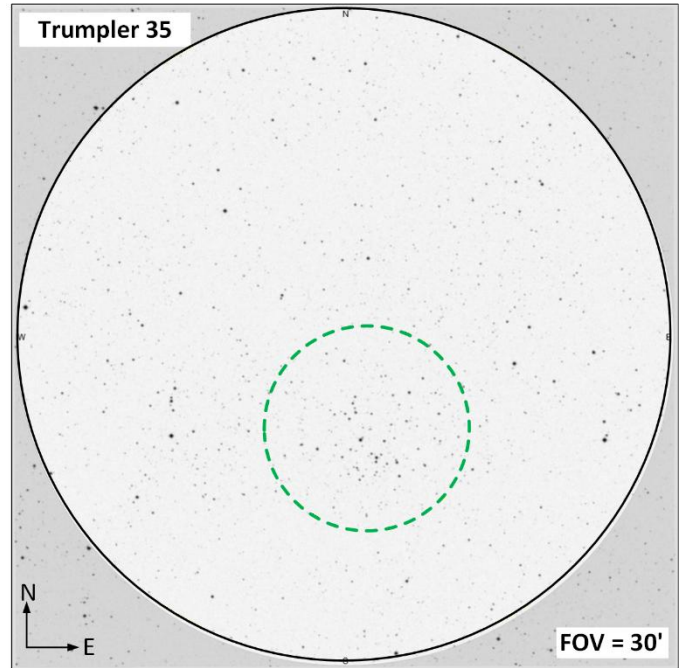
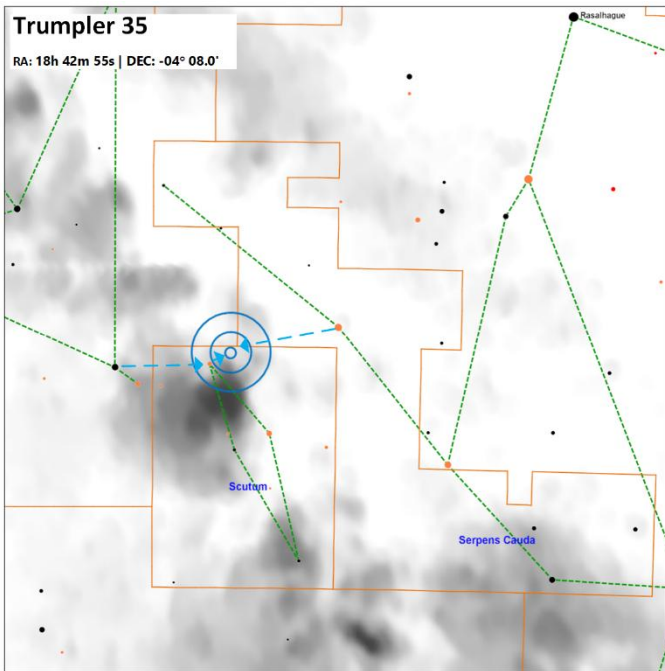


Trumpler 34 (OC || Mag=8.6 | Size=5' | SB=20.7 | mBortle=4 | mApt=150mm | MC=IV2m |) Located 4,377 light years away with a physical diameter of 6 light years. Trumpler Class is IV-Cluster not well detached, but has a strong field concentration, 2-Medium range of brightness between the stars in the cluster, m-Medium rich cluster with 50-100 stars.

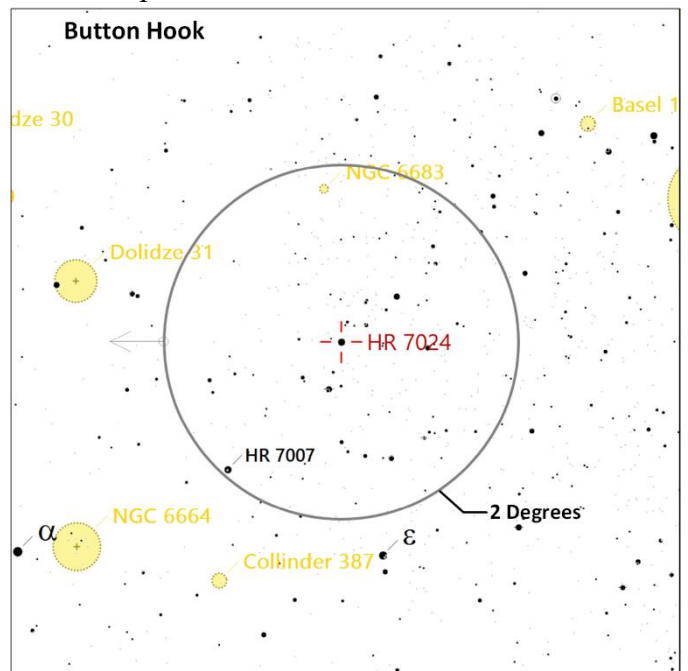
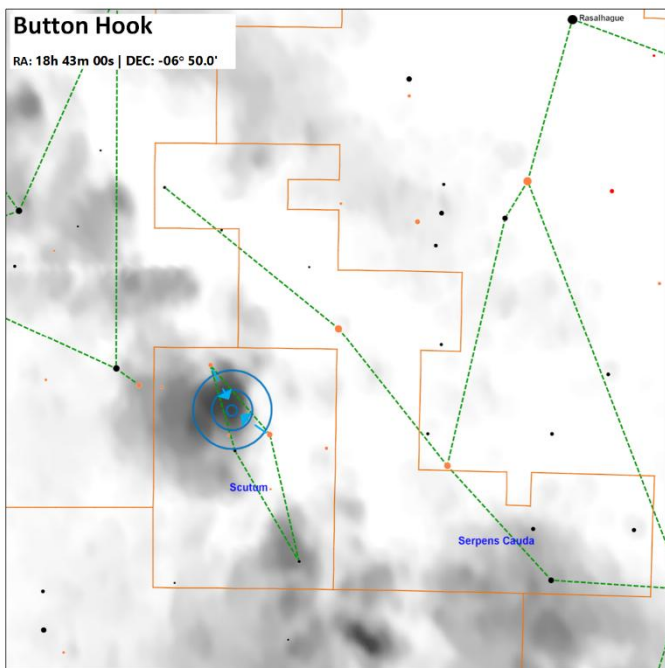


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Trumpler 35 (OC || Mag=9.2 | Size=6' | SB=21.7 | mBortle=? | mApt=200mm | MC=II2p |) Located 3,933 light years away with a physical diameter of 6 light years. Trumpler classification is II-Detached cluster with little central concentration, 2-Medium range of brightness between the stars in the cluster, p-Poor clusters with less than 50 stars.

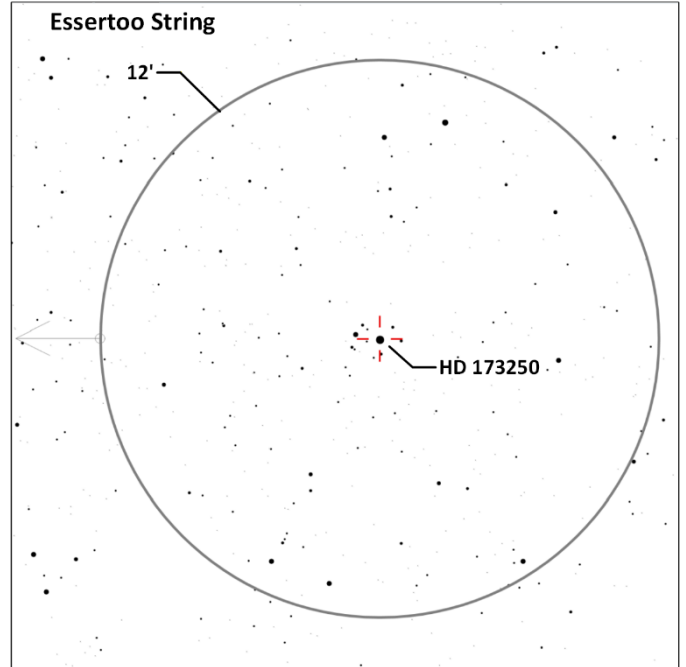
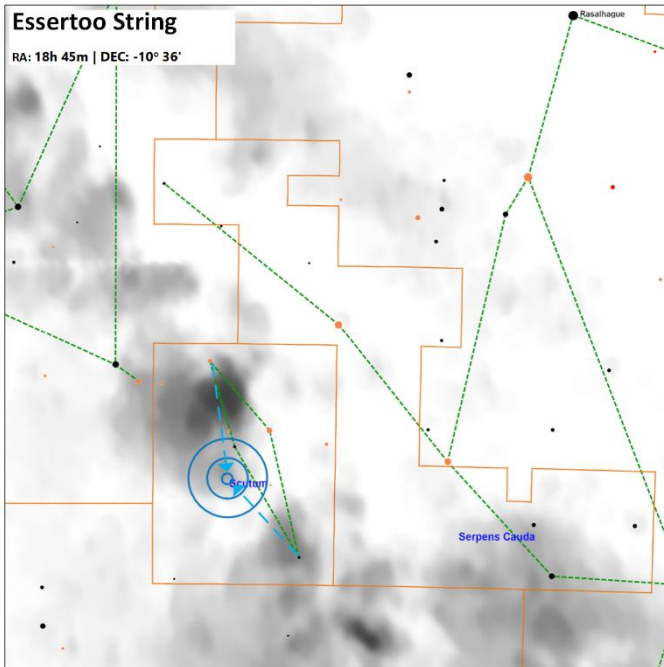


Button Hook (AS || Size= 75' x 45' | Centering Star = HR 7024; SAO-142525; HIP 91751 |) Descriptions vary between “A wavy line of bright stars” and “Letter J or fish hook shape”

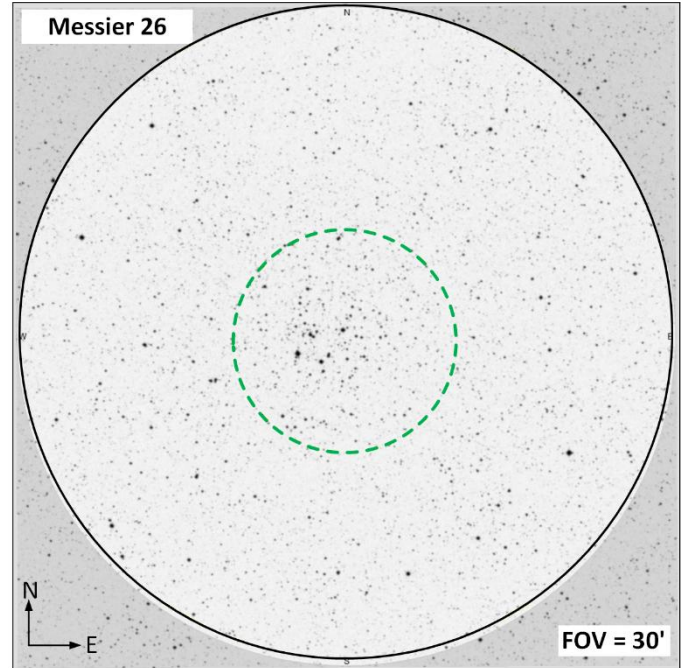
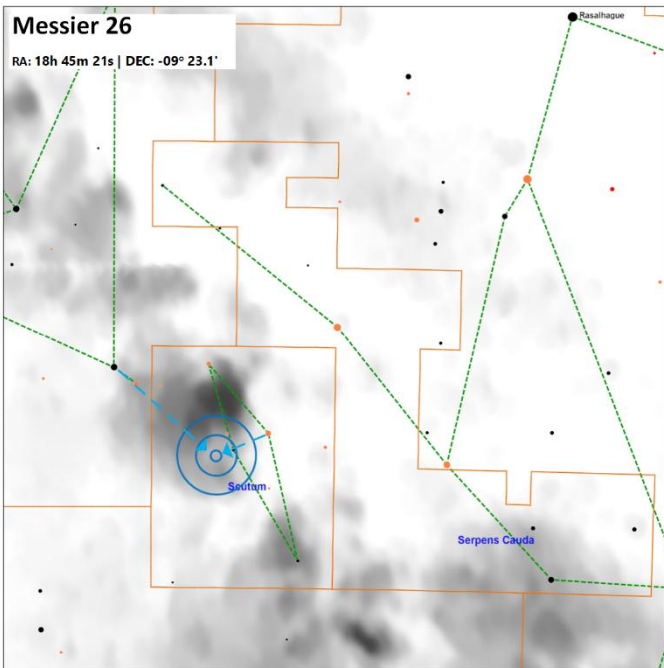


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Essertoo String (AS || | Size= 6' | Stars=12 | Centering Star = HD 173250; SAO-161783; HIP 91961) A row of stars in the shape of an 'S'.

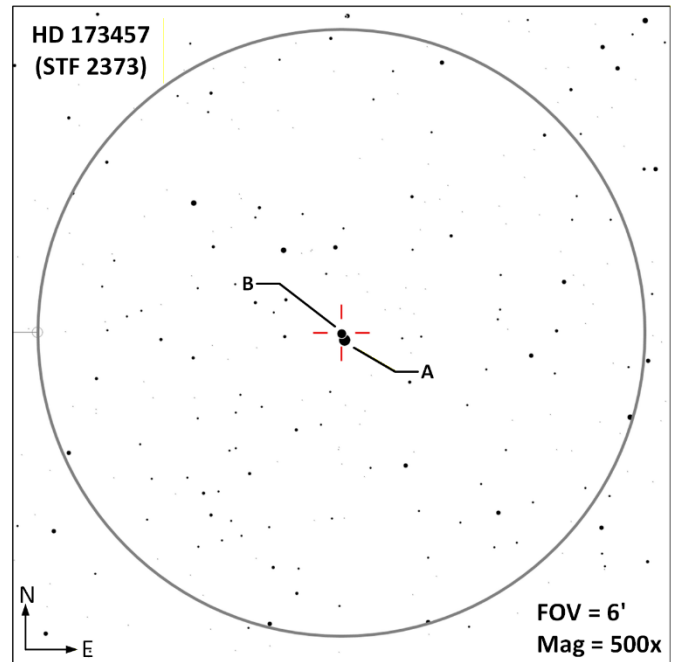
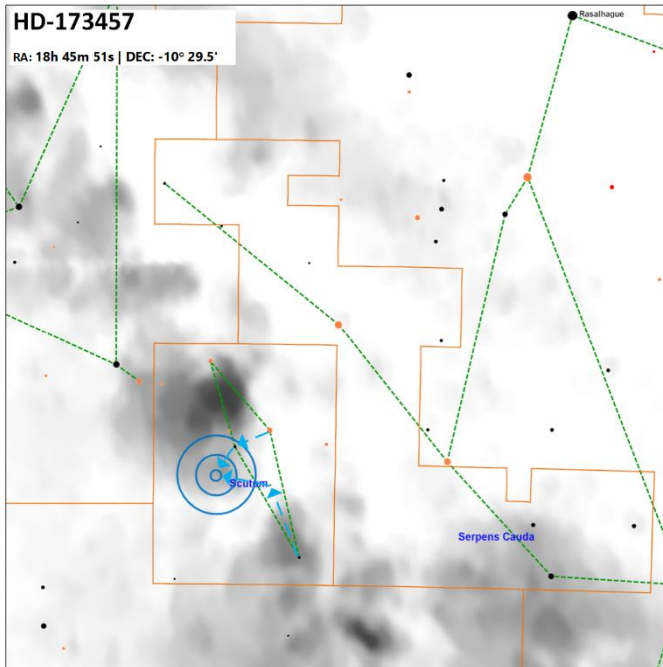


Messier 26 (OC || Mag=8.2 | Size=14' | SB=22.6 | mBortle=6 | mApt=130mm | MC=II2r ||) Located 5,160 light years away with size of 22 light years. About 25 stars are visible in a telescope with a 150–200 mm (6–8 in) aperture. Trumpler class is II- Detached cluster with little central concentration, 2-Medium range of brightness between the stars in the cluster, r-Rich cluster with over 100 stars.

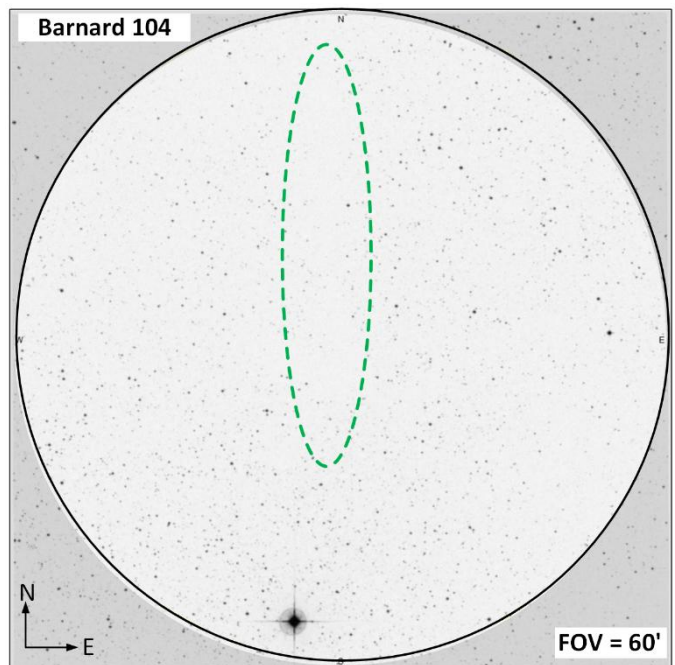
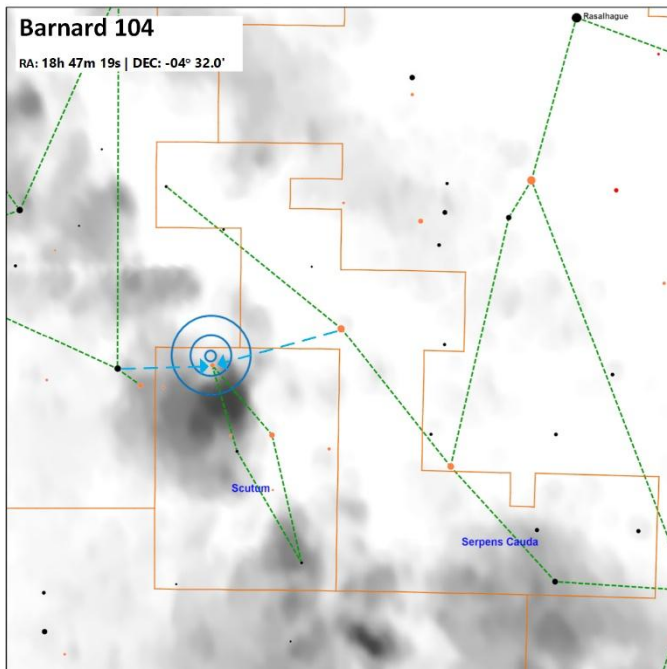


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HD 173457 (DS || AB | Mag=7.4,8.4 | Sep=4.4" | PA=337° | mBortle=9 | mApt=50mm | Color=yellow-white, yellow-white) Located 877 light years away with a magnitude 8.4 companion located 1,129 AU away.

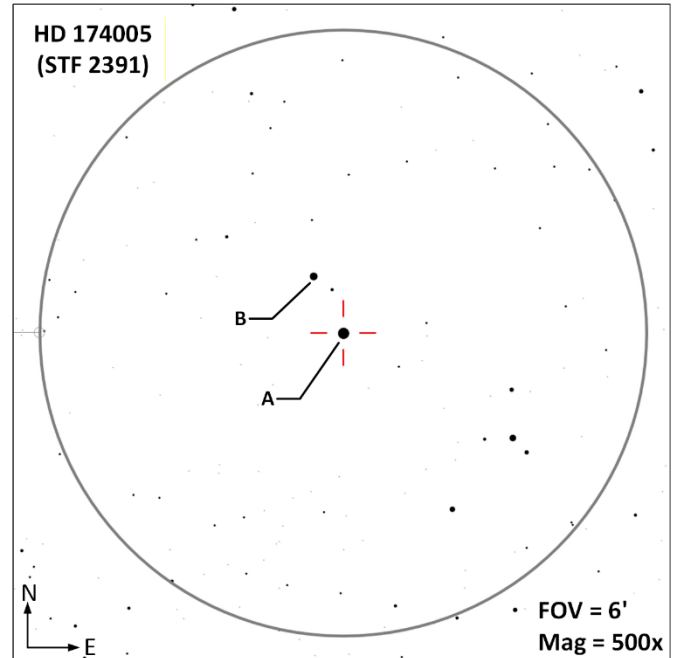
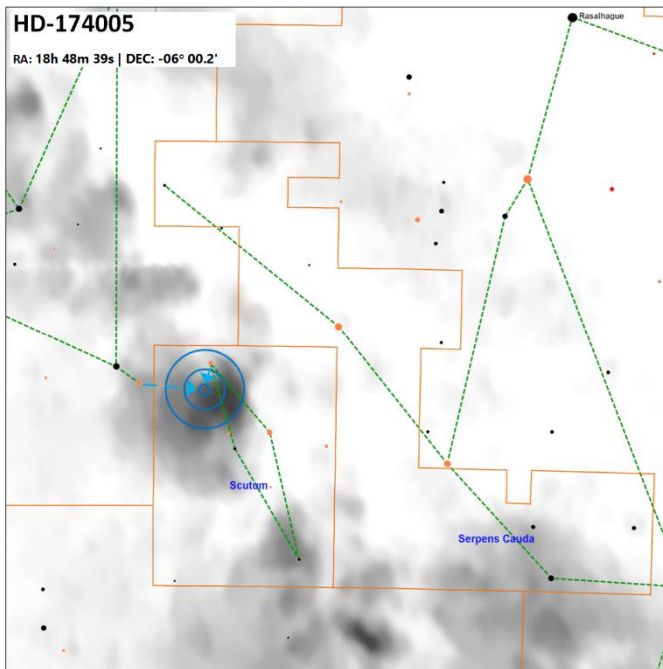


Barnard 104 (DN || Size=16'x1' | mBortle=4 | mApt=60mm | Opacity=5) A thin long dark nebula and known for its comma or hook shaped lane.

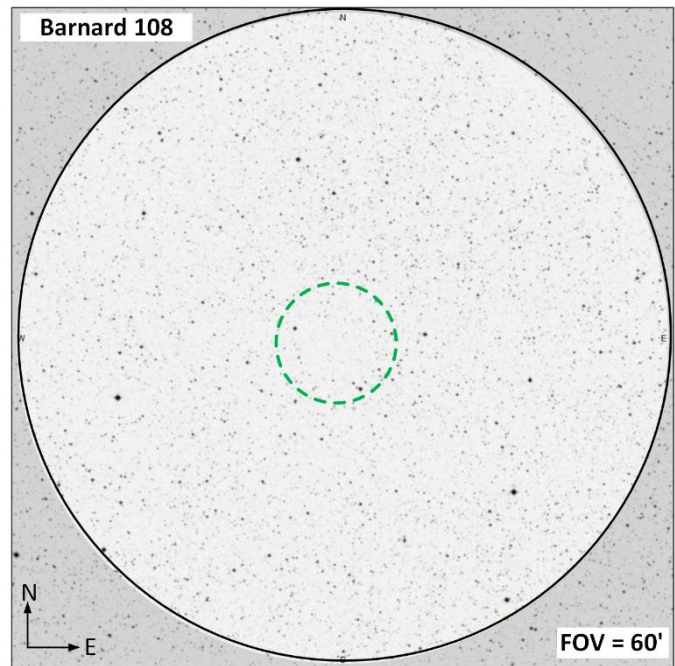
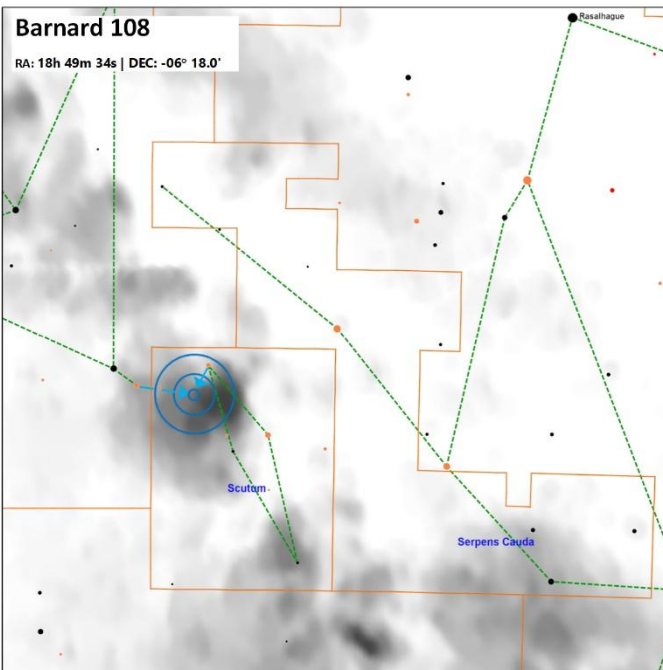


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HD 174005 (DS || AB | Mag=6.5,9.6 | Sep=38" | PA=332° | mBortle=9 | mApt=50mm | Spec=A7V kA2 mA2 (Iam Boo), ? | Color=white, ?) Located 753 light years away, the secondary orbits at a distance of 8,707 AU. Described as a lemony white star and a tiny bluish turquoise pair very far apart (Haas).

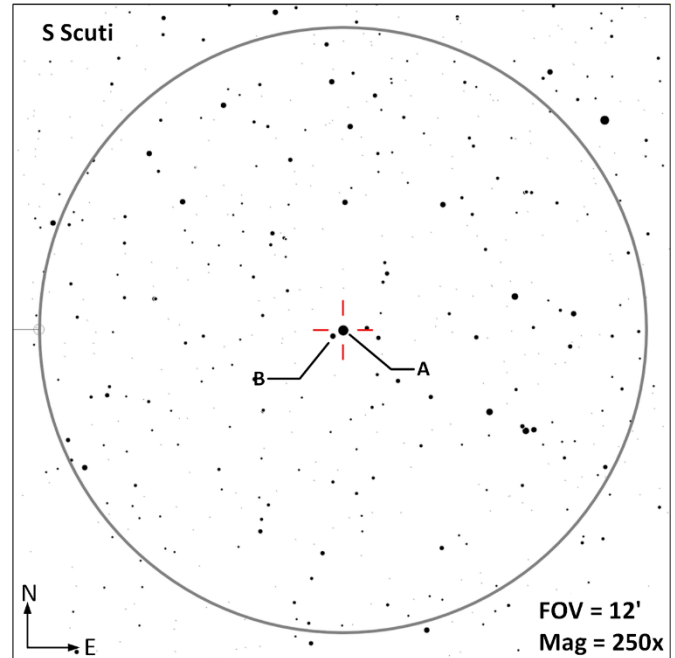
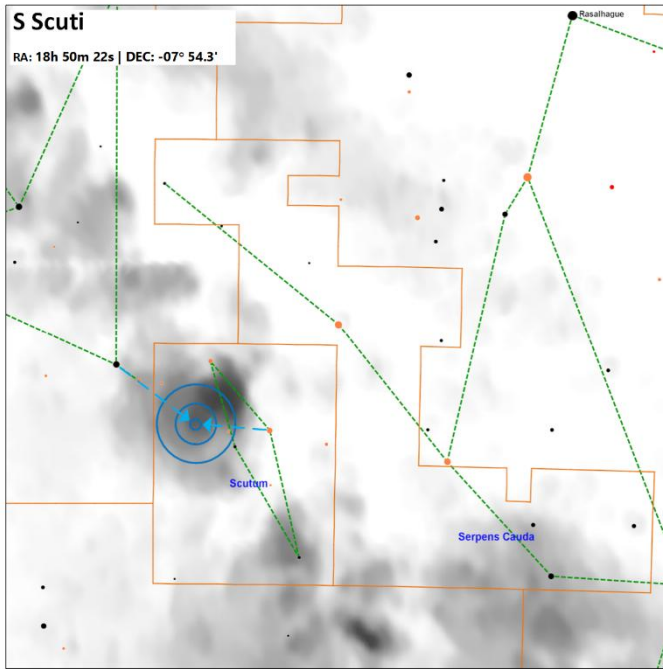


Barnard 108 (DN || | Size=3' | mBortle=4 | mApt=102mm | Opacity=3) This small dark nebula has a fairly low opacity, so may be a bit challenging to identify.

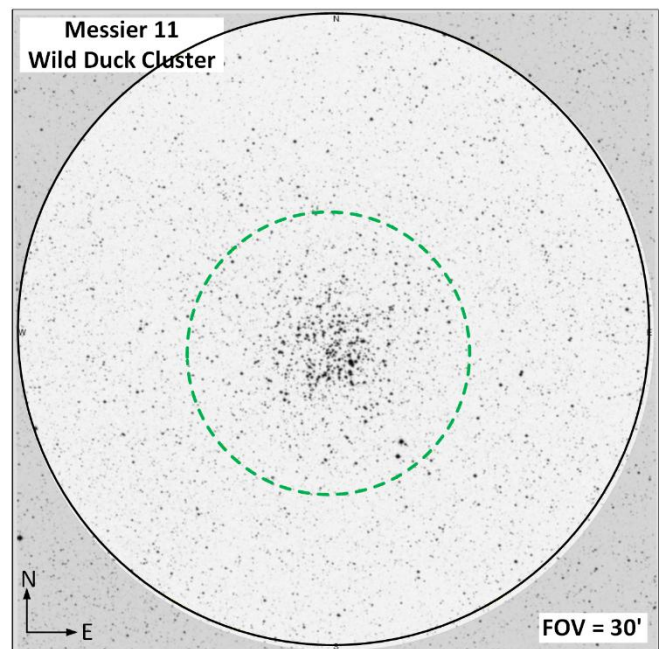
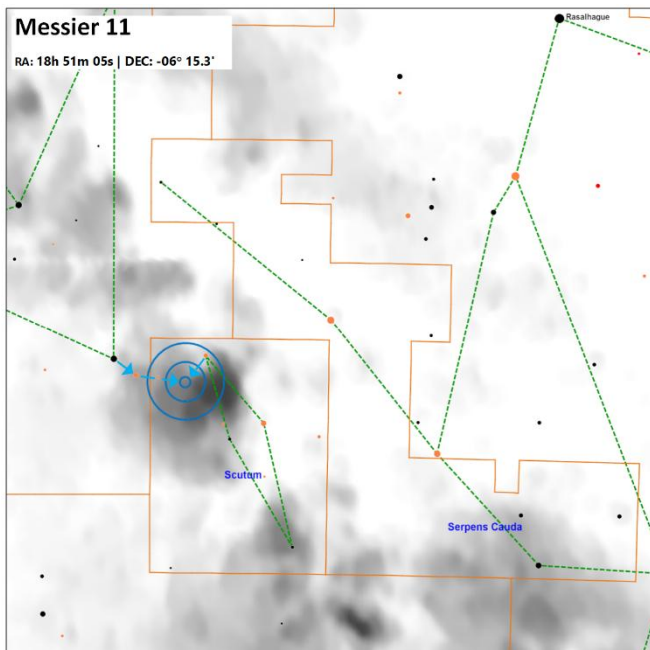


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S Scuti (CS, DS || Magnitude Range= 6.6 to 7.3 | Spec=C6 | BV=+2.71 | Color=red || **AB** | Mag=6.8,12 | Sep=14" | PA=238° | mBortle=8 | mApt=114mm | Spec=C6 | Color=red |) A carbon star with a faint companion star, located 1,259 light years away.

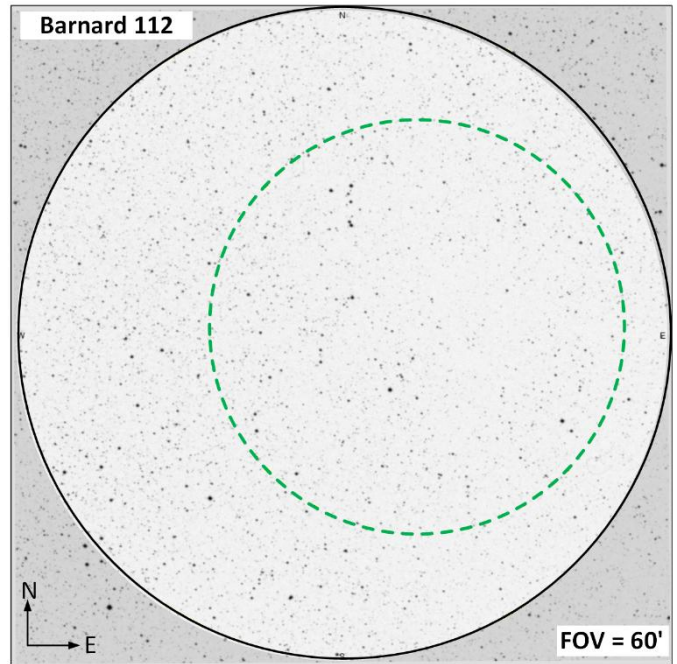
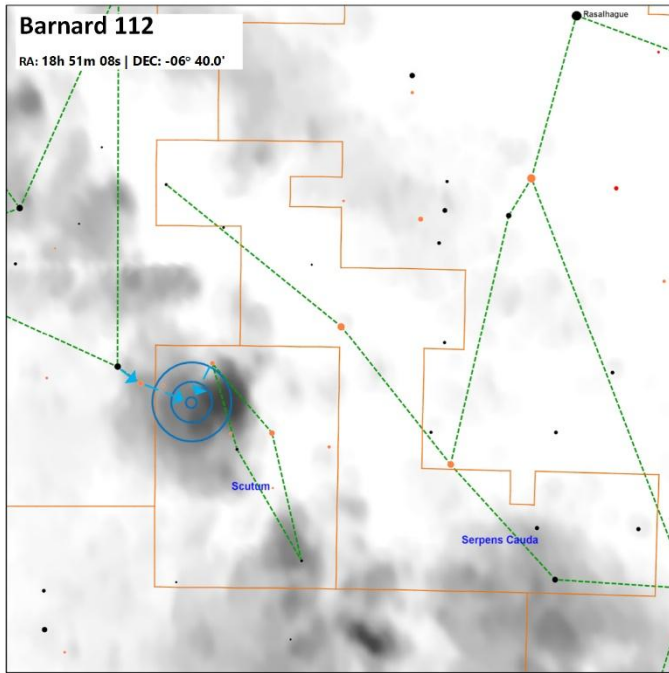


Messier 11 (OC || | Mag=6.3 | Size=14' | SB=20.5 | mBortle=9 | mApt=50mm | MC=II2r |) The Wild Duck Cluster gets its name from the brighter stars forming a triangle which could resemble a flying flock of ducks. M 11 is one of the most massive open clusters known and has an estimated age of 316 million years. The estimated mass of the cluster ranges from 3,700 to 11,000 solar masses. Trumpler class is II- Detached cluster with little central concentration, 2- Medium range of brightness between stars in the cluster, r-Rich cluster with over 100 stars.

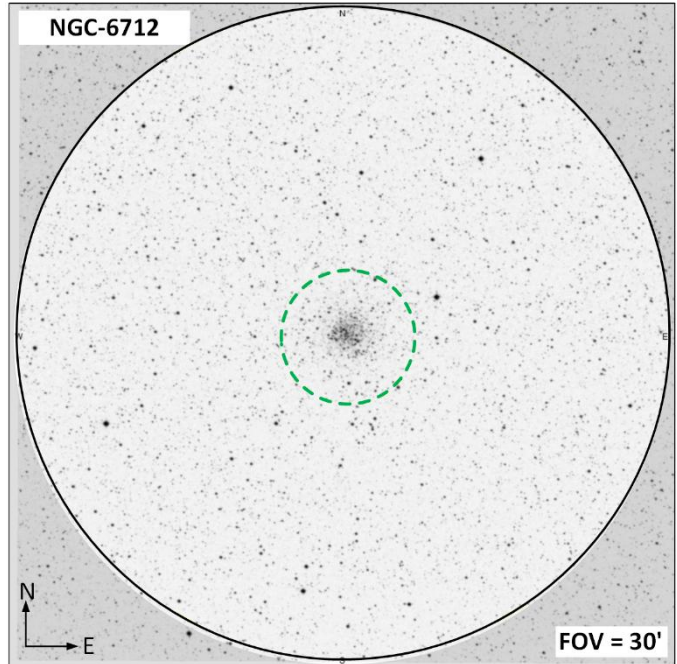
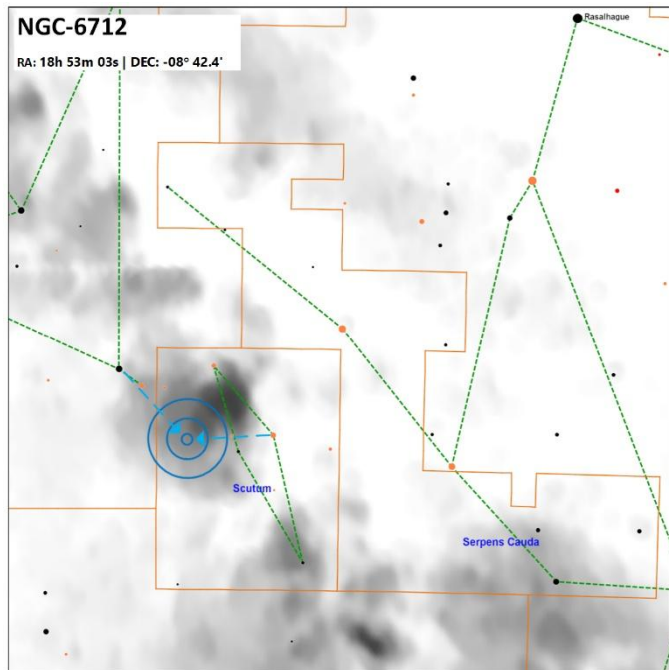


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Barnard 112 (DN || | Size=20' | mBortle=4 | mApt=50mm | Opacity=6 (positional) |) With a size of 20' this object may be visible in binoculars in addition to a telescope. Estimated size varies from 14' x 14' to 20'.

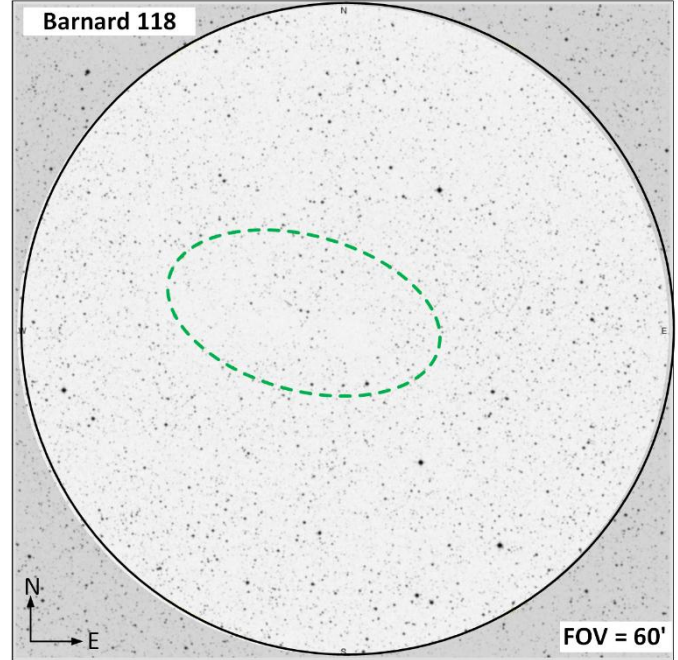
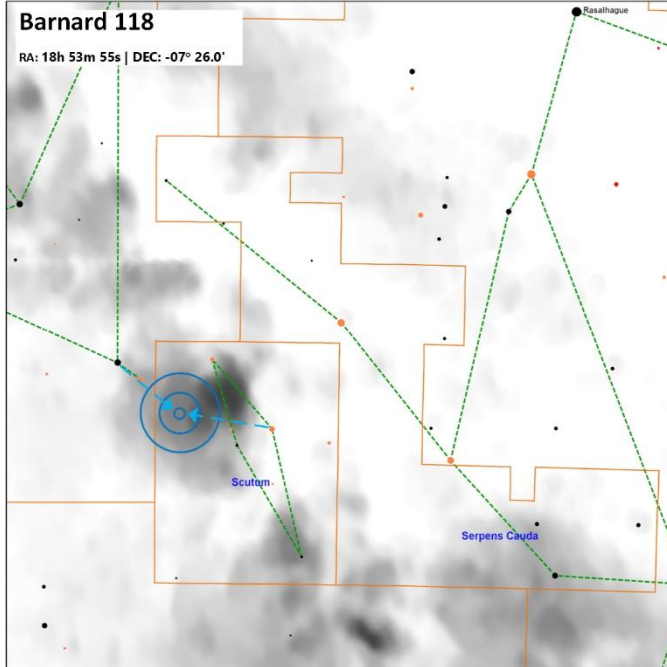


NGC-6712 (GC || | Mag=8.2 | Size=7.2' | SB=21.1 | mBortle=9 | mApt=50mm | MC=IX |) Estimated to be 23,000 light years away with a physical diameter of 64 light years and an estimated age of 12 billion years old. It is suspected that the globular cluster may have undergone significant mass loss due to passing through the galactic disk. This is a class IX (Loose towards the center) Globular cluster.

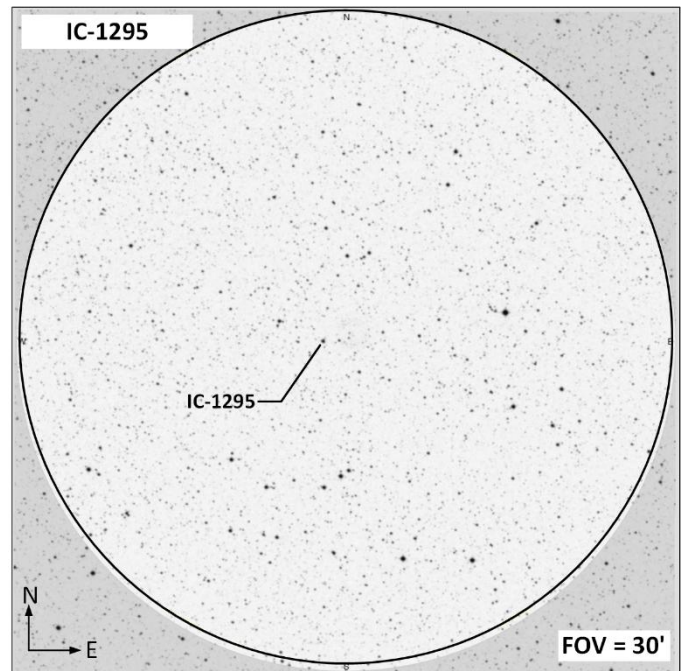
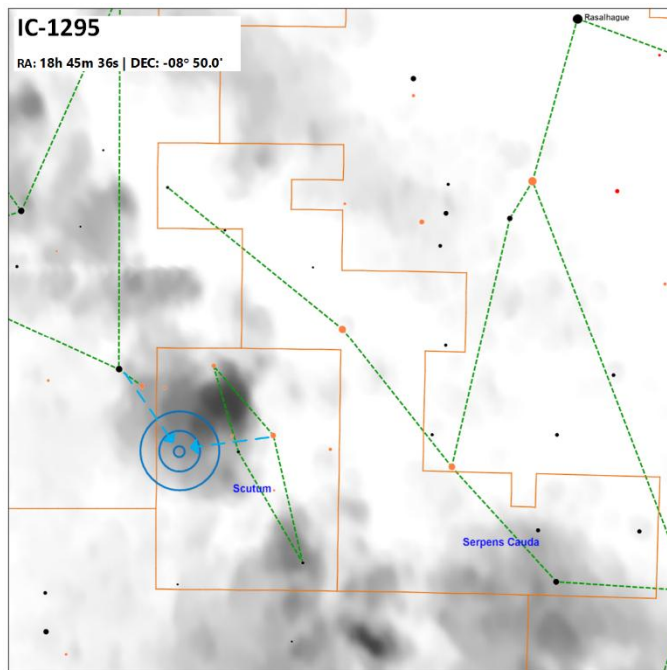


Constellation Guide

Barnard 118 (DN || | Size=3.5'x2' | mBortle=4 | mApt=50mm | Opacity=6 |) Estimated to be 1,305 light years away. With an opacity of 6, this small Dark nebula may be fairly easy to identify.

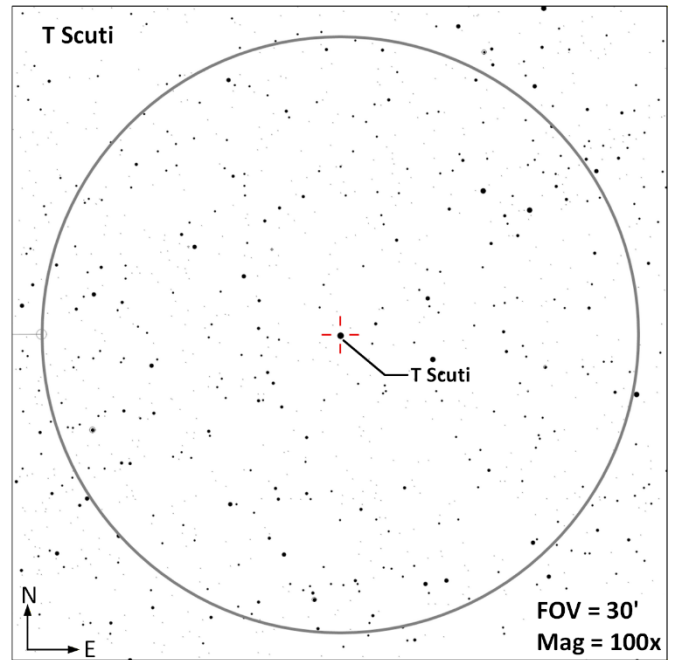
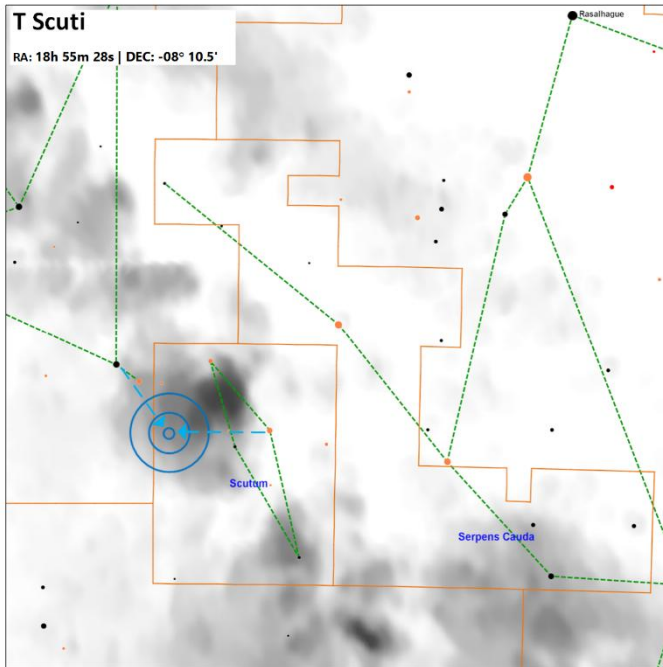


IC 1295 (PN || | Mag=12.5 | Size=1.4' | SB=21.9 | mBortle=? | mApt=200mm | MC=Round (multi-shell) |) This planetary nebula lies 4,700 light years away. Utilization of an OIII filter may help identify this object. This object may not be visible with telescopes of 6" aperture in Bortle 4 skies.



Constellation Guide

T Scuti (CS || Magnitude Range= 8.9 to 10 | Period=122 d | Spec=M (Mira) | BV=+2.70 | Color=red |) This carbon star has a magnitude range of 8.9 to 10.0 over a period of 122 days.



Blank

Constellation Guide
Observation Log: Scutum (Sct)

Equipment Config A: _____ Config B: _____

Notes: _____

Date	Time	Config	Target	Notes

Date	Time	Config	Target	Notes

Constellation Guide
Observation Log: Scutum (Sct)

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: Brent Archinal, Steve Hynes
 - Double stars for small telescopes: Sissy Haas
 - [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: Demelza 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