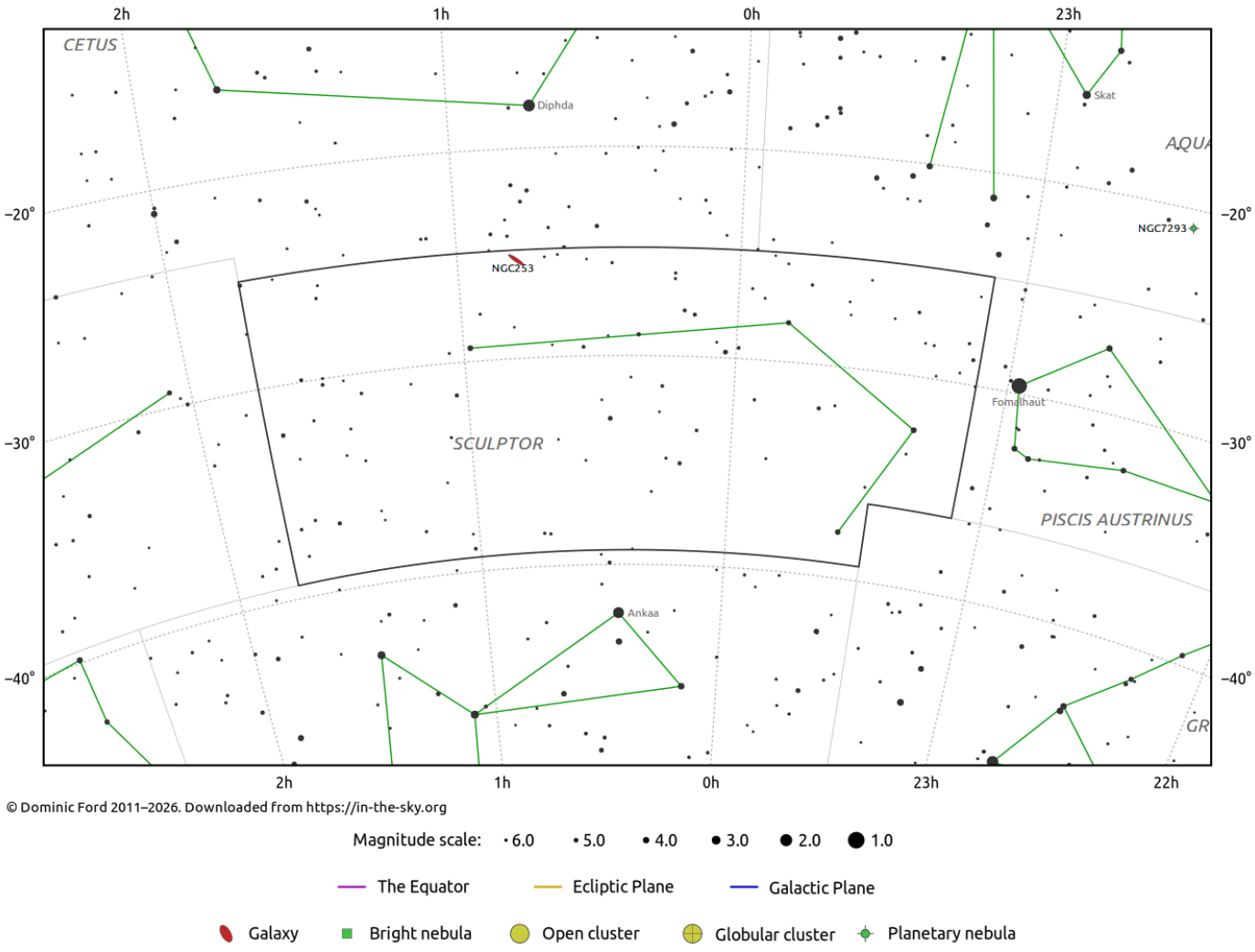
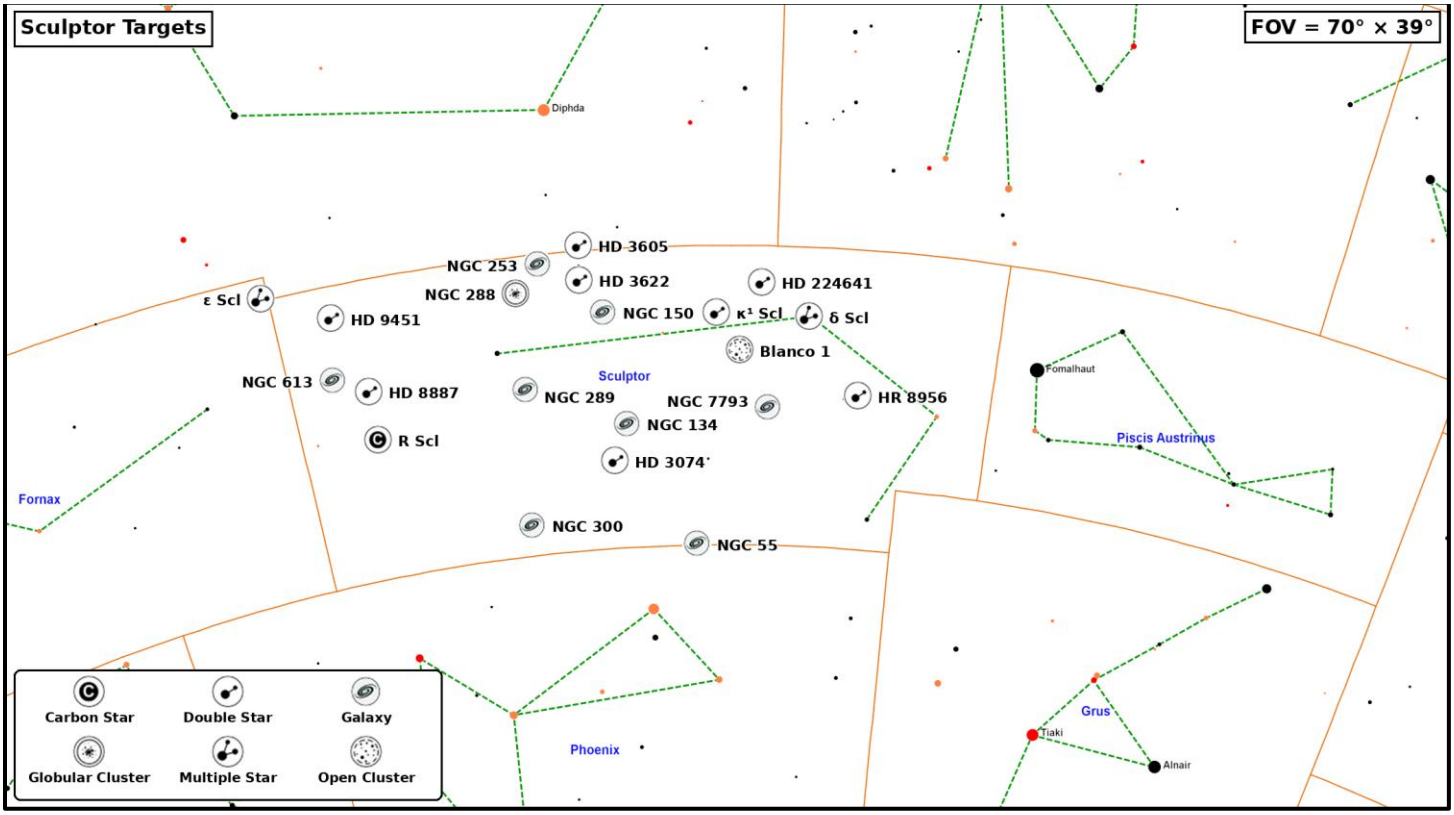
Constellation: Sculptor (Scl)

Evening Visibility: **August – October**
Opposition: **September**
Latitude Visibility: **+50° to -90°**
Online Information: | In-The-Sky.org | Constellation-guide.com |

In-The-Sky.org Constellation Map



Constellation Guide



Constellation Targets

Blanco 1, Kappa1 Sculptoris, NGC 134, NGC 150, HD 3074, HD 3605, HD 3622, NGC 289, Epsilon Sculptoris, HR 8956, NGC 253, NGC 7793, NGC 55, NGC 300, HD 224641, Delta Sculptoris, NGC 288, R Sculptoris, HD 8887, HD 9451, NGC 613

Mythology/Back Story

Originally named Apparatus Sculptoris, Latin translating to "the sculptor's studio", this constellation was named by the French astronomer Nicolas Louis de Lacaille in the 18th century. Later the name was shortened to Sculptor. This is a faint constellation with no stars brighter than magnitude 4. However, since Sculptor lies at right angles to the Milky Way, it does provide us a fairly unobscured view into the universe where a number of faint galaxies can be viewed. Additionally, one of the dwarf galaxies of our Milky Way resides in this constellation, ESO 351-30 / PGC 3589, a dwarf spheroidal galaxy that covers an area of 40'x31' and is so faint it is not detectable visually through a telescope, but long exposure photographs show a faint grainy haze of resolved stars.

Constellation Guide

Constellation Highlights

Another reminder that this is a southern constellation, so many of the objects may be under the horizon for astronomers based in the north, or not well placed. This is a dim constellation with a limited number of objects.

- **NGC-134** (G) – Large fairly bright galaxy.
- **Epsilon Scl** (MS-3) – Showcase Multiple Star System.
- **R Sculptoris** (CS) – A carbon star.
- **NGC-55** (G) – Long bright galaxy.
- **NGC-288** (GC) – A bright loose globular cluster.
- **NGC-613** (G) – A classic barred spiral galaxy.

Constellation Targets Summary List

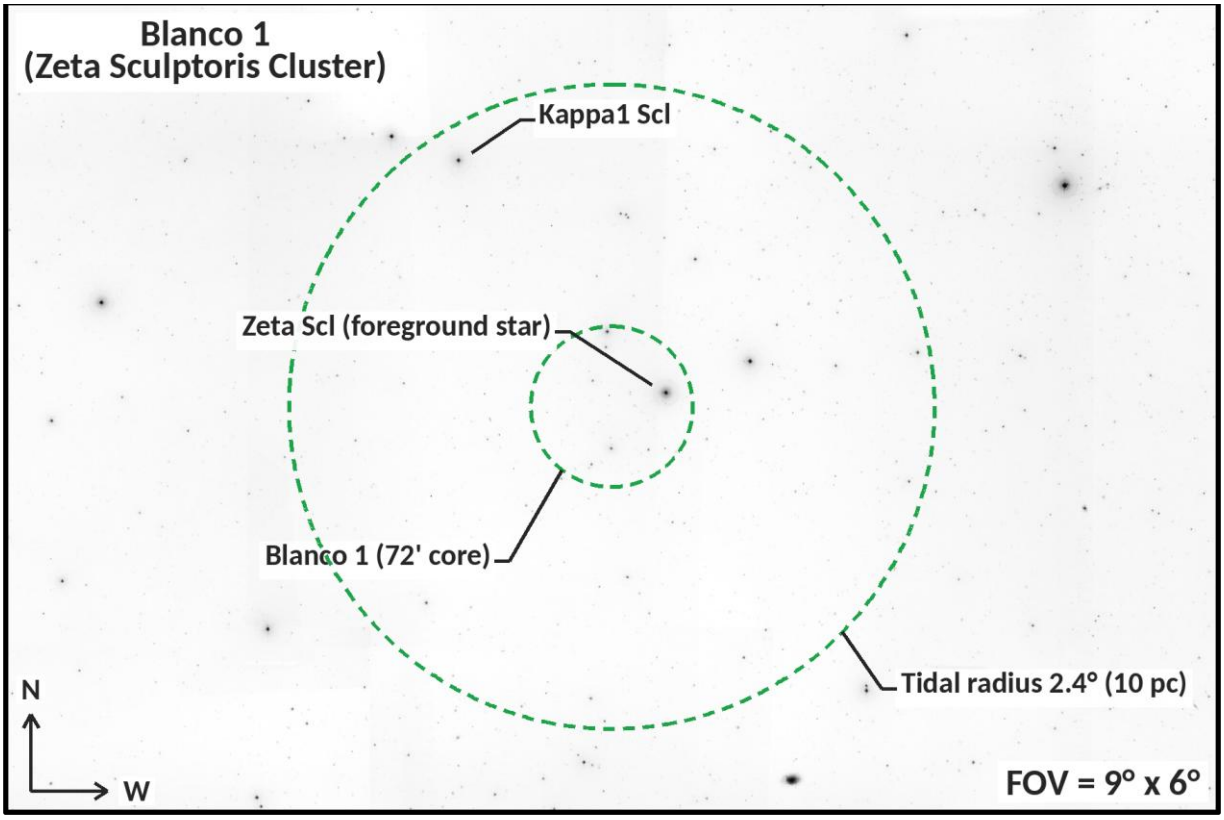
Object (Type)	Links	Gear	Aliases	Stats
Blanco 1 Tidal Tails (Blanco-1)				
Blanco 1 (OC)	1	B	Zeta Sculptoris Cluster; Bla 1; EQ 0001-302; C 0001-302; ζ Sculptoris cluster	| Mag=4.5 | Size=72' | SB=13.5 | mBortle=9 | mApt=50mm | MC=IV3m |
Kappa1 Sculptoris (DS)	1, 2	T	SAO-166083; HIP-761; HR 24; HD 493; κ1 Scl; Kappa1 Scl; ADS 111; BU391; CD-28 16; β391; WDS00094-2759; KAPPA SCL 1; CPD -28 4	**AB** | Mag=6.13 / 6.24 | Sep=1.3" | PA=258° | mBortle=9 | mApt=102mm | Spec=F4IV-V | Color=yellow-white |
NGC 134 Group (NGC-134)				
NGC 134 (G)	1	T	NGC-134; Giant Squid Galaxy; PGC 1851; MCG -6-2-12; ESO 350-23	| Mag=10.3 | Size=8.4'x2' | SB=22.0 | mBortle=5 | mApt=70mm | MC=SB(s)bc |
NGC 150 (G)	1	T	NGC-150; Levy-223; PGC 2052; ESO 410-19; UGCA 7; MCG -5-2-18; IRAS 00317-2804	| Mag=11.2 | Size=4.2' | SB=22.9 | mBortle=1 | mApt=250mm | MC=SB(rs)b? |
HD 3074 (DS)	1	T	SAO-192609; HIP-2663; HJ3375; WDS00337-3500; CoD -35 170; CPD -35 60	**AB** | Mag=6.64 / 8.46 | Sep=4.4" | PA=171° | mBortle=9 | mApt=50mm | Spec=G3IV | Color=yellow |
HD 3605 (DS)	1	B, T	SAO-166443; HIP-3056; HJ1991; WDS00388-2506; CoD -25 234; CPD -25 67	**AB** | Mag=6.58 / 9.73 | Sep=47.2" | PA=95° | mBortle=9 | mApt=50mm | Spec=K0 | Color=orange |
HD 3622 (DS)	1	B, T	SAO-166446; HIP-3064; HJ1992; WDS00389-2536; CoD -26 196; CPD -26 51	**AB** | Mag=7.78 / 8.85 | Sep=45.8" | PA=248° | mBortle=9 | mApt=50mm | Spec=A7V | Color=white |
NGC 289 (G)	1	T	NGC-289; Levy-222; PGC 3089; ESO 411-25; MCG -5-3-10; VV 484; IRAS 00502-3128; 2MASX J00524236-3112209	| Mag=10.9 | Size=3.7' | SB=22.4 | mBortle=4 | mApt=130mm | MC=SB(rs)bc |
Epsilon Sculptoris (MS-3)	1, 2	B, T	SAO-167275; HIP-8209; HR 514; HD 10830; ε Scl; ε Sculptoris; Epsilon Scl; Epsilon Sculptoris; HJ3461; ADS 1394; CD-25 704; FK5 61; WDS01456-2503; CPD -25 201;	**AB** | Mag=5.38 / 8.5 | Sep=5" | PA=18° | mBortle=9 | mApt=80mm | Spec=F2V | Color=yellow-white | **AD** | Mag=5.38 / 11.74 | Sep=141.7" | PA=204° | mBortle=9 | mApt=102mm | Spec=F2V | Color=yellow-white |

Object (Type)	Links	Gear	Aliases	Stats
			CCDM J01456-2504AB; GC 2145	
HR 8956 (DS)	1	T	SAO-214659; HIP-116539; HD 222004; HWE93; CD-32 17593; WDS23371-3152	**AB** | Mag=6.69 / 9.92 | Sep=5.5" | PA=251° | mBortle=9 | mApt=70mm | Spec=K1III | Color=orange |
Sculptor Group (NGC-253)				
NGC 253 (G)	1	B, T	NGC-253; Caldwell 65; C-65; Sculptor Galaxy; Silver Dollar Galaxy; Silver Coin Galaxy; Levy-92; PGC 2789; ESO 474-29; UGCA 13; MCG -4-3-9	| Mag=7.1 | Size=25'x7' | SB=21.3 | mBortle=8 | mApt=50mm | MC=SAB(s)c |
NGC 7793 (G)	1	T	NGC-7793; Bond's Galaxy; Levy-43; PGC 73049; ESO 349-12; MCG -6-1-9; IRAS 23552-3252	| Mag=9 | Size=9.1' | SB=22.4 | mBortle=5 | mApt=50mm | MC=SA(s)d |
NGC 55 (G)	1	B, T	NGC-55; Caldwell 72; C-72; String of Pearls Galaxy; PGC 1014; MCG -7-1-13; ESO 293-50; Dunlop 507; 2MASS J00145360-3911478; IRAS F00124-3929	| Mag=8.1 | Size=30'x6.3' | SB=22.4 | mBortle=5 | mApt=50mm | MC=SB(s)m |
NGC 300 (G)	1	B, T	NGC-300; Caldwell 70; C-70; Sculptor Pinwheel Galaxy; Levy-221; PGC 3238; ESO 295-20; MCG -6-3-5; IRAS 00525-3757; 2MASX J00545347-3741037	| Mag=8.1 | Size=20' | SB=23.2 | mBortle=4 | mApt=150mm | MC=SA(s)cd |
HD 224641 (DS)	1	T	SAO-192296; HIP-118284; LAL193; WDS23595-2631; CoD -27 16506; ADS 17150	**AB** | Mag=8.05 / 8.3 | Sep=10.4" | PA=169° | mBortle=9 | mApt=50mm | Spec=F0 / F3V | Color=yellow-white / yellow-white |
Delta Sculptoris (MS-3)	1, 2	B, T	SAO-192167; HIP-117452; HR 9016; HD 223352; HD 223340; δ Scl; δ Sculptoris; Delta Scl; Delta Sculptoris; HJ3216; ADS 17021; CD-28 18353; FK5 896; WDS23489-2808; CPD -28 7721; BU 1013; CCDM J23489-2808AB; GC 33050; GSC 06988-01337	**AB** | Mag=4.57 / 11.6 | Sep=3.4" | PA=239° | mApt=250mm | Spec=A0V | Color=white | **AC** | Mag=4.57 / 9.37 | Sep=74.7" | PA=296° | mBortle=9 | mApt=50mm | Spec=A0V | Color=white |
NGC 288 (GC)	1	T	NGC-288; Melotte 3; Mel-3; ESO 474-SC37	| Mag=8 | Size=13' | SB=22.2 | mBortle=5 | mApt=50mm | MC=X |
R Sculptoris (CS)	1, 2	T	SAO-193122; HIP-6759; HR 423; HD 8879; R Scl; GCVS740001; CoD -33 525; CPD -33 145; LDS 2199; WDS 01270-3233; AAVSO 0122-33	| Magnitude Range= 6.1 to 8.8 | Period=1.01y | Spec=C6,5ea | BV=+3.86 | Color=deep red |
HD 8887 (DS)	1	T	SAO-193123; HIP-6771; HJ3436; WDS01271-3014; CoD -30 478	**AB** | Mag=6.9 / 9.56 | Sep=9.9" | PA=127° | mBortle=9 | mApt=50mm | Spec=K0/1III | Color=orange |

Object (Type)	Links	Gear	Aliases	Stats
HD 9451 (DS)	1	B, T	SAO-167119; HIP-7161; ARG4; WDS01323-2633; CoD -27 522; CPD -27 139; ADS 1212	**AB** | Mag=7.99 / 9.14 | Sep=17.9" | PA=72° | mBortle=9 | mApt=50mm | Spec=Am / G2:V | Color=white / yellow |
NGC 613 (G)	1	T	NGC-613; Levy 367; PGC 5849; ESO 413-11; MCG -5-4-44; VV 824; IRAS 01319-2940	| Mag=10 | Size=5.2'x2.6' | SB=21.5 | mBortle=7 | mApt=60mm | MC=SB(rs)bc |

Blank

Blanco 1 Tidal Tails (Blanco-1)



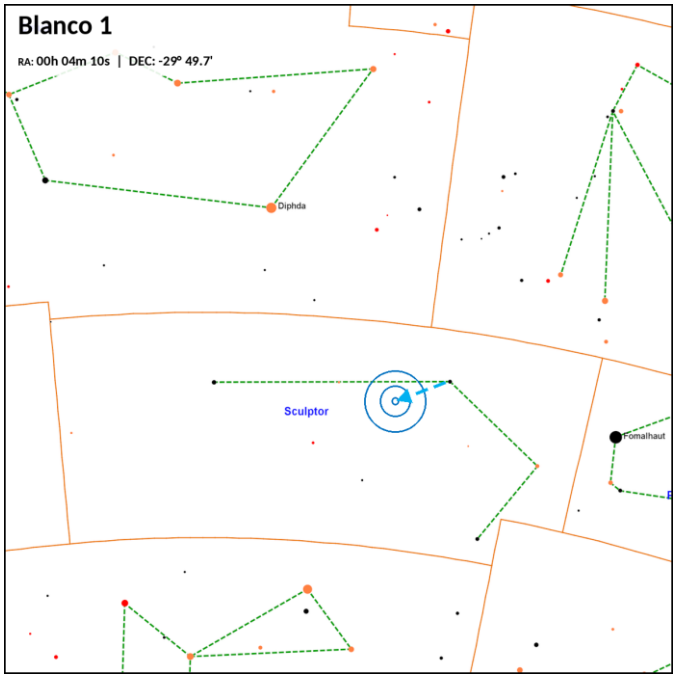
The Blanco 1 Tidal Tails region contains Blanco 1.

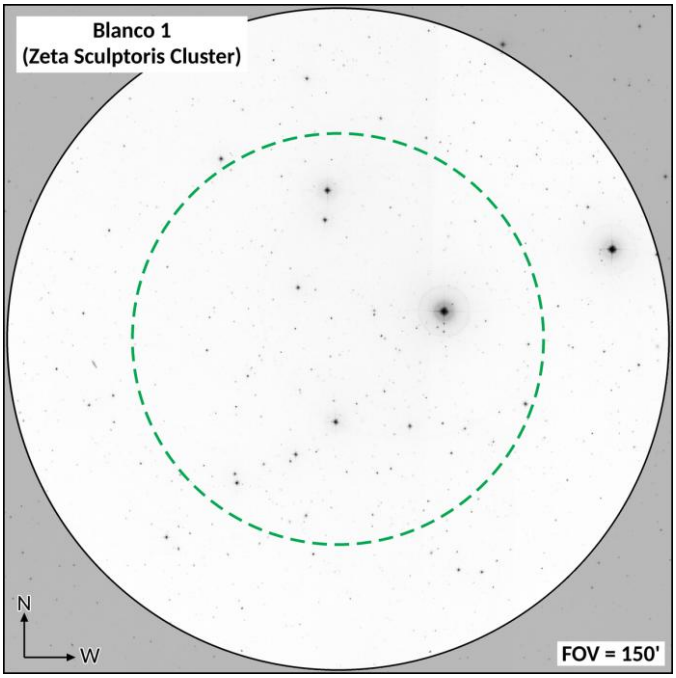
Blanco 1 is a young open cluster about 240 parsecs (780 light years) away and roughly 100 to 130 million years old, seen almost straight toward the south galactic pole. It was long called the Zeta Sculptoris Cluster, but Hipparcos showed that Zeta Sculptoris, at about 154 parsecs, is a foreground star and not a member, so the cluster now carries its discoverer's name.

Gaia data show that Blanco 1 is coming apart. In 2020 Zhang and colleagues found 644 members in the cluster and in two tidal tails streaming away from it. The tidal radius, inside which stars are still held by the cluster's gravity, is about 10 parsecs, or 2.4° on the sky (the large dashed circle). About 37% of the cluster's mass is already unbound, and the tails reach 50 to 60 parsecs from the center on each side, up to about 13° of sky depending on how much of each tail runs along our line of sight.

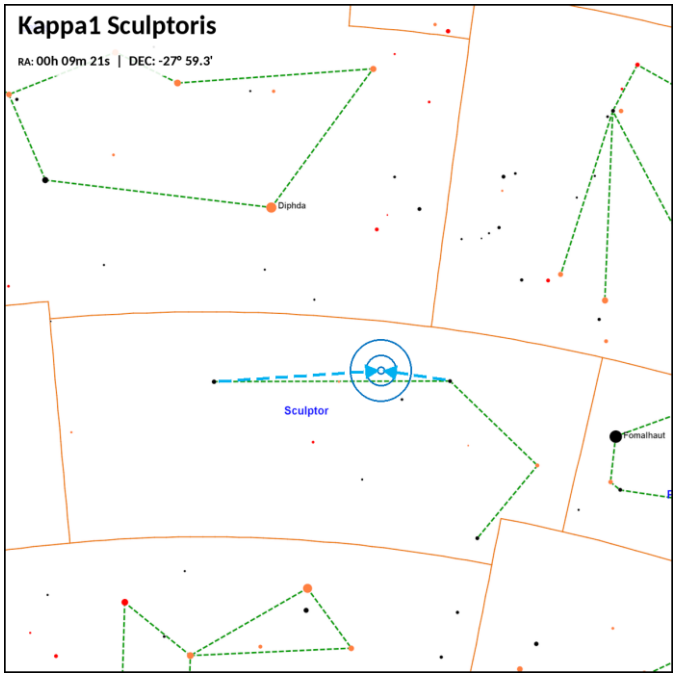
With no giant molecular cloud nearby, the tails are thought to be drawn out mainly by the Galaxy's differential rotation. A 2024 study of TESS rotation periods confirmed that the tail stars share the cluster's age. The tails are scattered stars spread over many degrees and cannot be seen as a structure in a telescope; the map shows the 72′ core and the tidal radius.

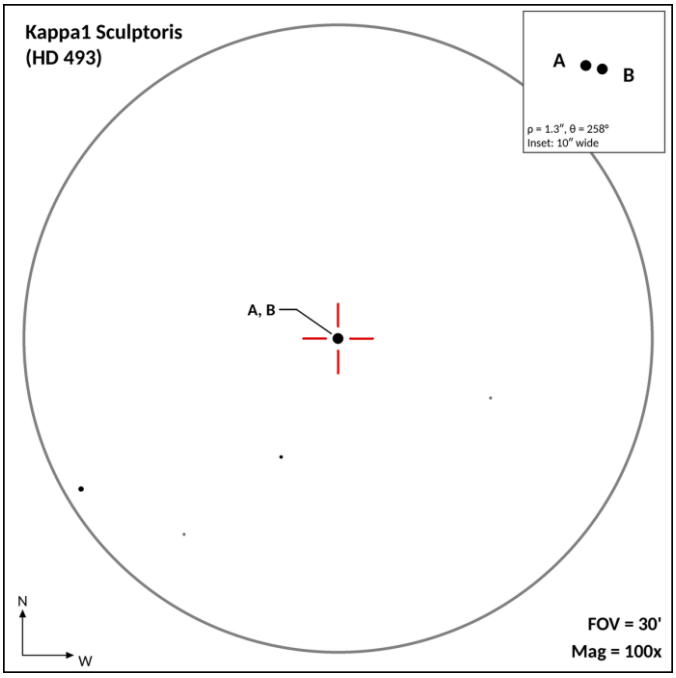
Blanco 1 (OC || Mag=4.5 | Size=72' | SB=13.5 | mBortle=9 | mApt=50mm | MC=IV3m |) The Zeta Sculptoris Cluster is located 780 light years away and is estimated to be 100 to 130 million years old with an estimated diameter of 18 light years. Trumpler Class IV-Not well detached from the surrounding star field, 3-Large range of brightness between stars, m-Moderately rich cluster with 50 to 100 stars. See map and description above.



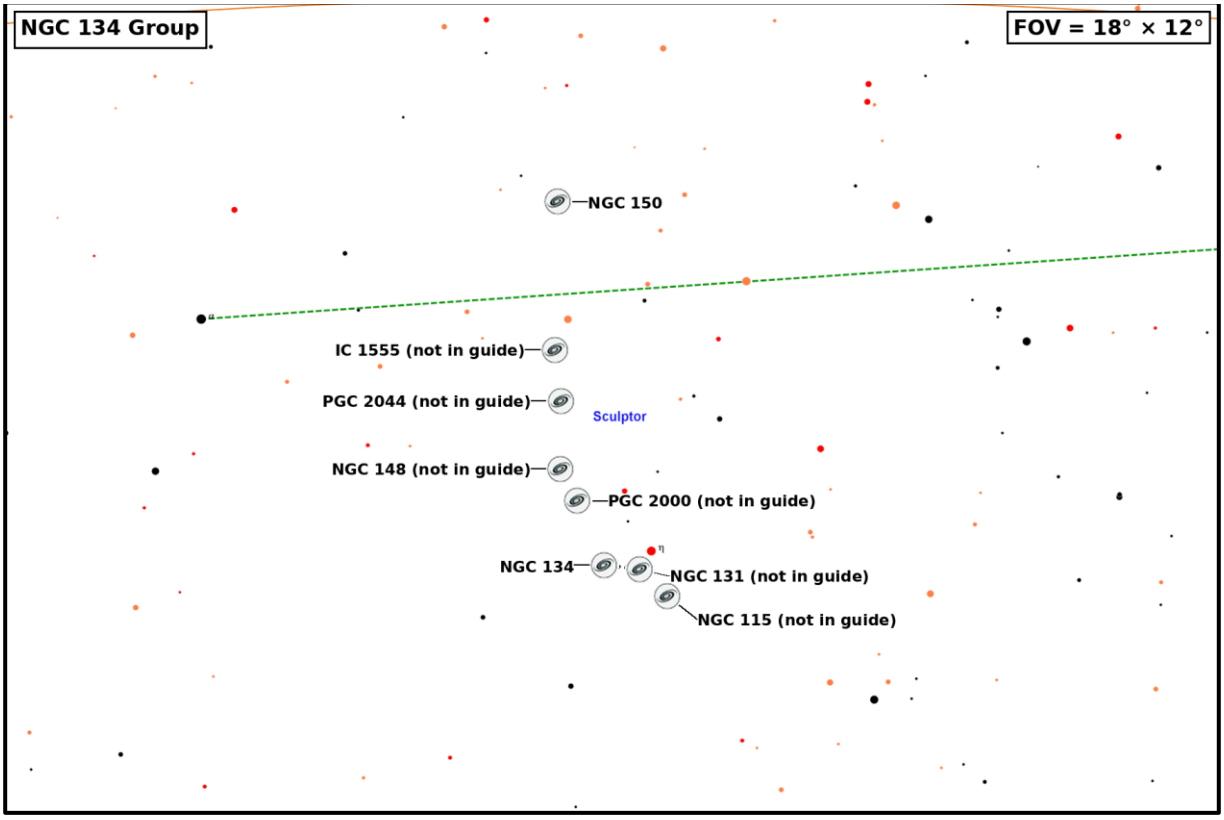


Kappa1 Sculptoris (DS || **AB** | Mag=6.13 / 6.24 | Sep=1.3" | PA=258° | mBortle=9 | mApt=102mm | Spec=F4IV-V | Color=yellow-white |) Located 253 light years away. The AB pair has an orbital period of 616 years, while the AC pair (not listed here) is not physical.





NGC 134 Group (NGC-134)



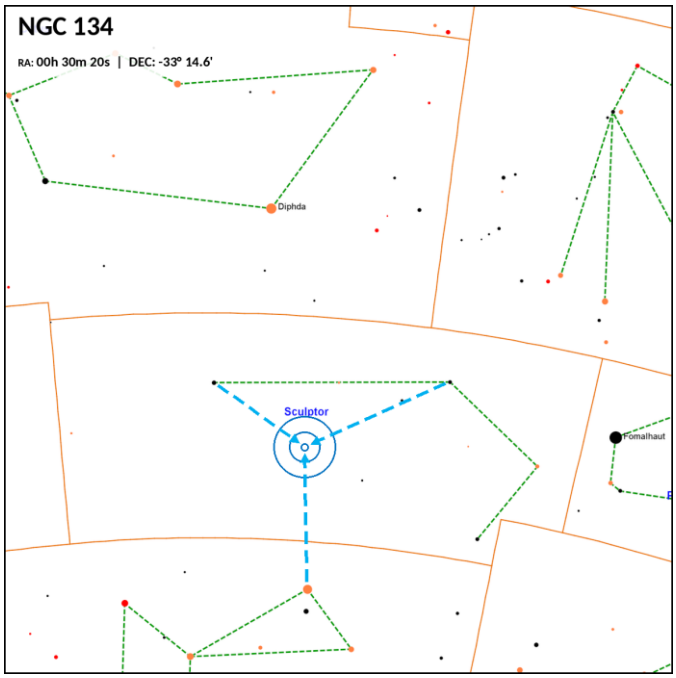
The NGC 134 Group region contains NGC 134 and NGC 150.

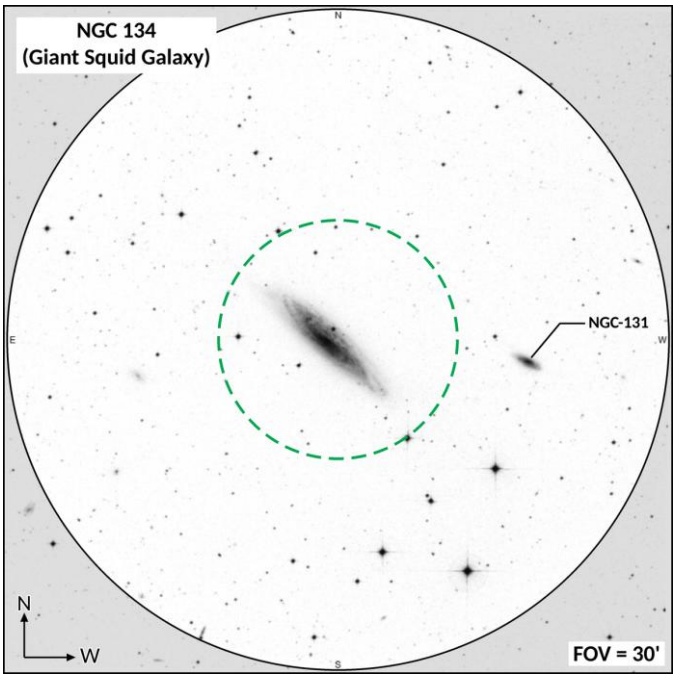
The NGC 134 Group (LGG 7 in Garcia's 1993 catalogue of nearby galaxy groups) is a loose group of eight galaxies strung north to south across central Sculptor: NGC 115, NGC 131, NGC 134, NGC 148, NGC 150, IC 1555, PGC 2000 and PGC 2044. Its galaxies recede from us at about 1,550 to 1,750 km/s, which places the group roughly 60 million light years away. That is about five times farther than NGC 253 and the Sculptor Group, which share this part of the sky but are unrelated foreground galaxies.

NGC 134 is the group's giant. It is a barred spiral seen nearly edge-on, about 150,000 light years across and larger than our Milky Way. Its disk is warped, faint extensions reach out from its ends, and a trail of gas appears to be stripped from one edge, all of which suggest past encounters with its neighbours, though no interaction has been proven. The small spiral NGC 131, about 9′ to the west, is the member most often seen beside it in photographs.

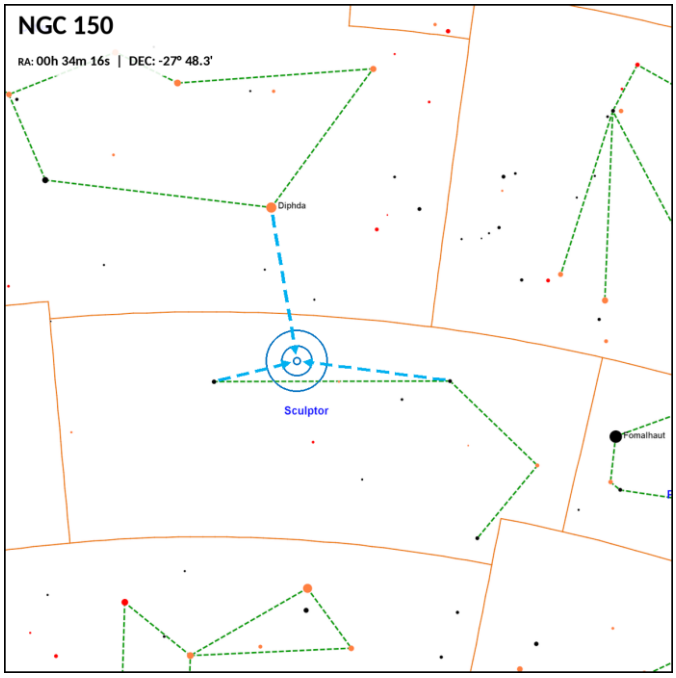
NGC 150 lies 5.4° to the north. It is a barred spiral with a recession velocity of about 1,585 km/s, and distance estimates of 55 to 85 million light years agree with membership in the group. The Type II supernova SN 1990K, which appeared in NGC 150 in 1990, was reported to resemble SN 1987A. The other members are fainter galaxies of about 12th to 14th magnitude and are not included in this guide.

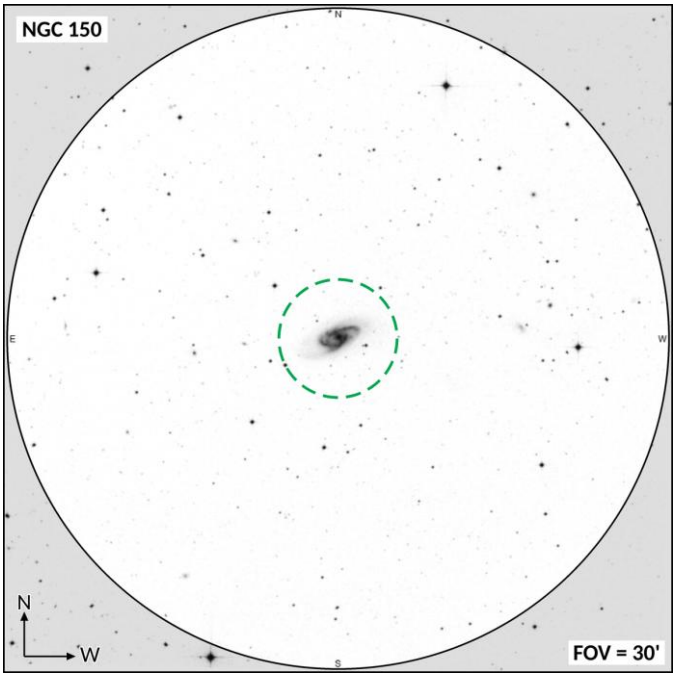
NGC 134 (G || Mag=10.3 | Size=8.4'x2' | SB=22.0 | mBortle=5 | mApt=70mm | MC=SB(s)bc |) The Giant Squid Galaxy is a barred spiral galaxy that is 60 million light years away and is similar to our Milky Way galaxy with loosely wrapped spiral arms. The disk of this galaxy is slightly warped and twisted indicating it may have had a recent interaction with another galaxy. Its companion galaxy NGC 131 is also in the same field of view. See map and description above.





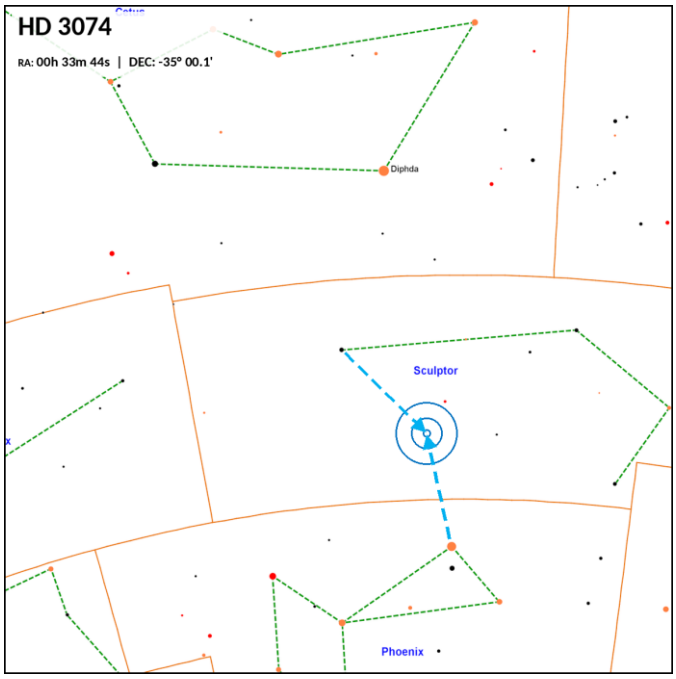
NGC 150 (G || Mag=11.2 | Size=4.2' | SB=22.9 | mBortle=1 | mApt=250mm | MC=SB(rs)b? |) This is a barred spiral galaxy located 63 million light years away and has a diameter of 94,000 light years.

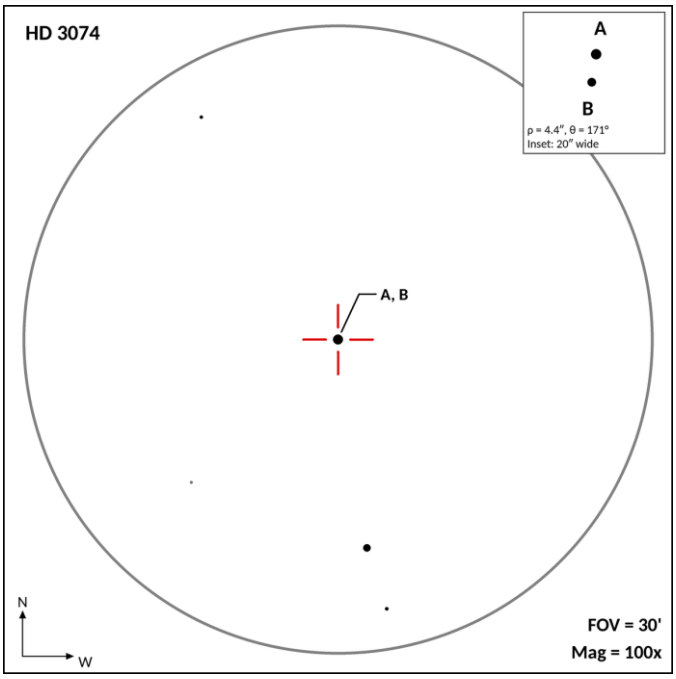




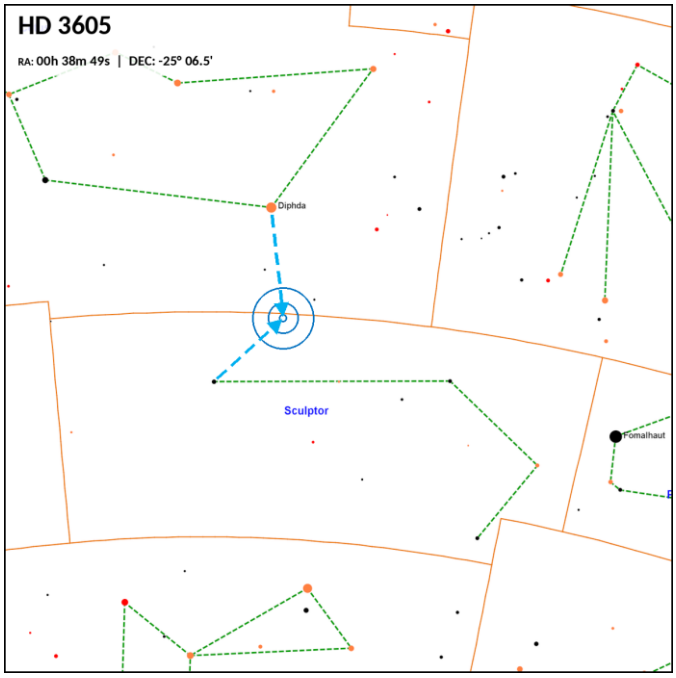
Constellation Guide

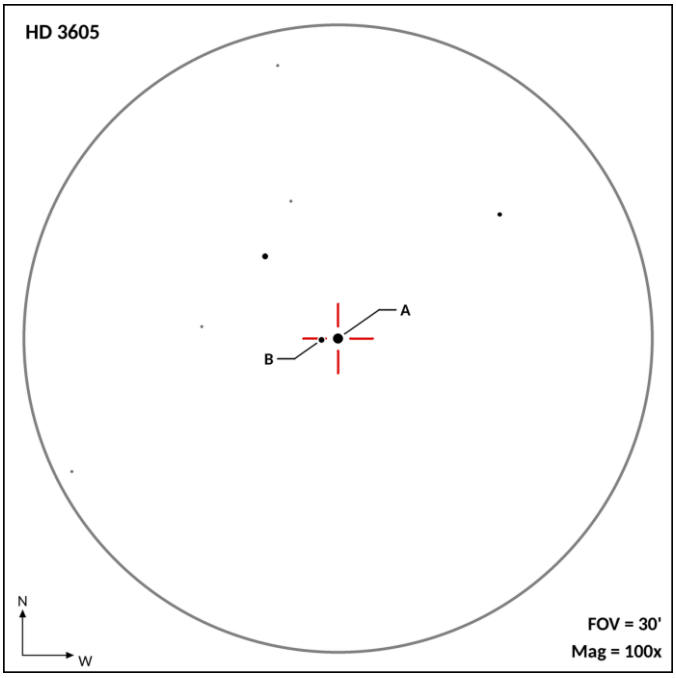
HD 3074 (DS || **AB** | Mag=6.64 / 8.46 | Sep=4.4" | PA=171° | mBortle=9 | mApt=50mm | Spec=G3IV | Color=yellow |) Located 108 light years away, this is a yellow subgiant with a companion at least 146 AU away. The pair is physical, but its orbital period has not been determined.



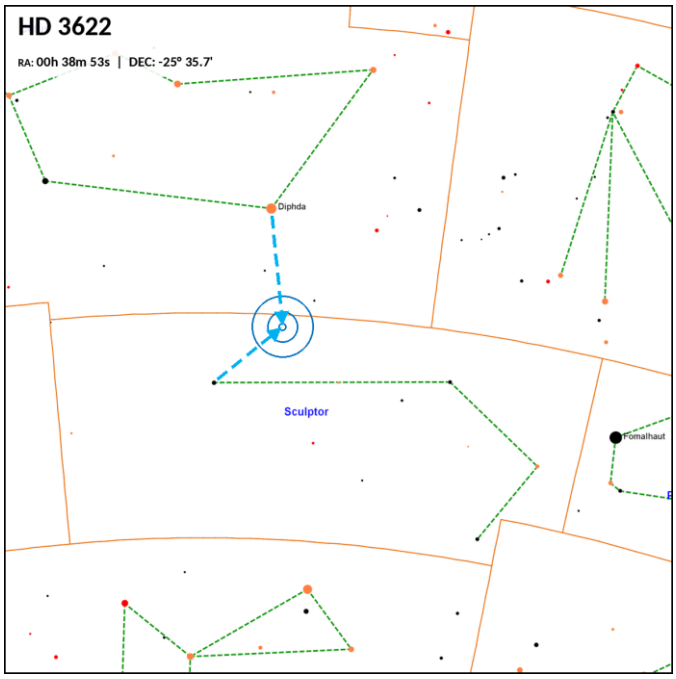


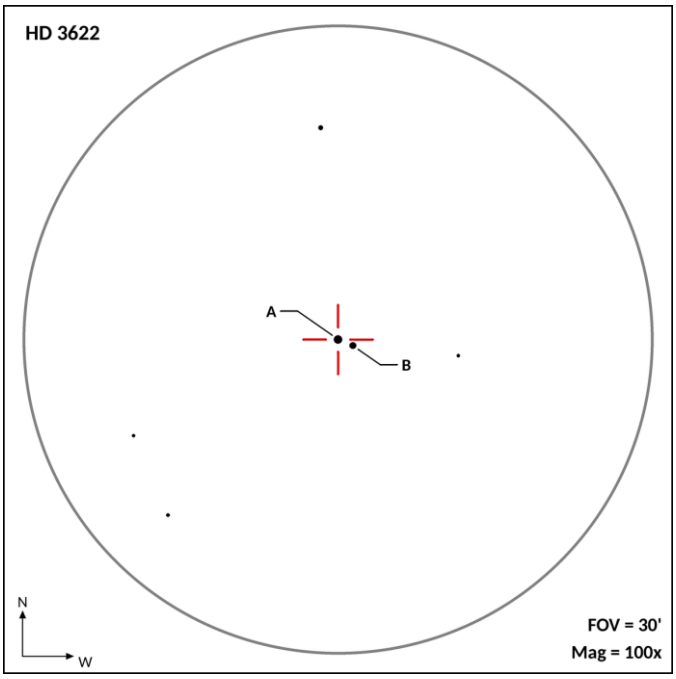
HD 3605 (DS || **AB** | Mag=6.58 / 9.73 | Sep=47.2" | PA=95° | mBortle=9 | mApt=50mm | Spec=K0 | Color=orange |) Located 1,200 light years away, this is a physical double. The orbital period is not known, but the secondary is at least 17,400 AU from its primary.



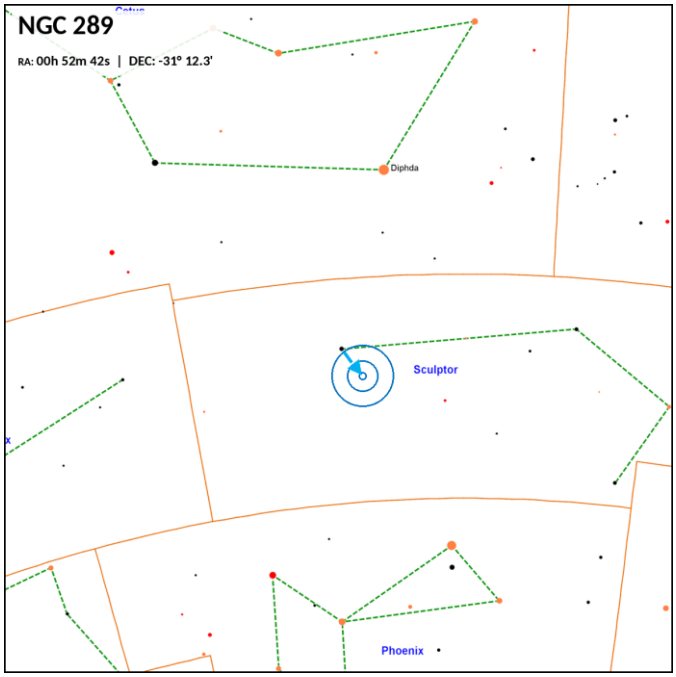


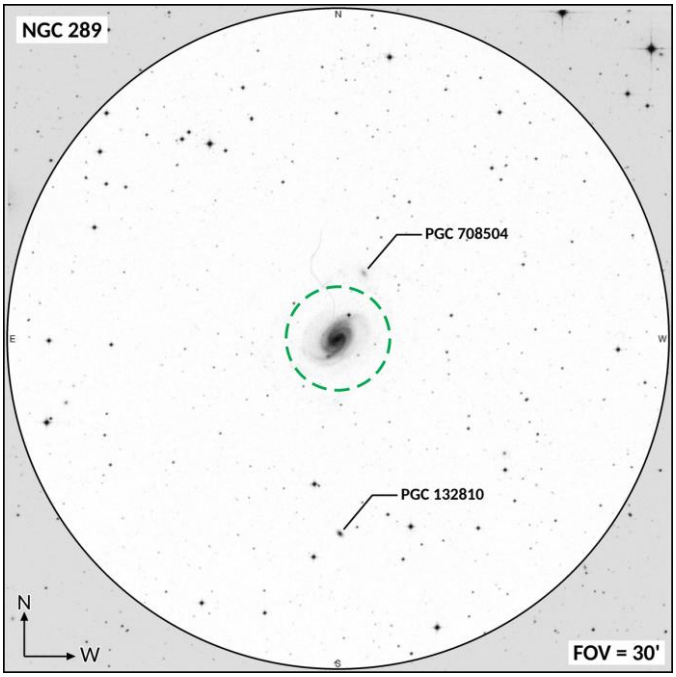
HD 3622 (DS || **AB** | Mag=7.78 / 8.85 | Sep=45.8" | PA=248° | mBortle=9 | mApt=50mm | Spec=A7V | Color=white |) Located 360 light years away, this is a physical pair. The primary is a main sequence star. The orbital period of this pair is unknown.



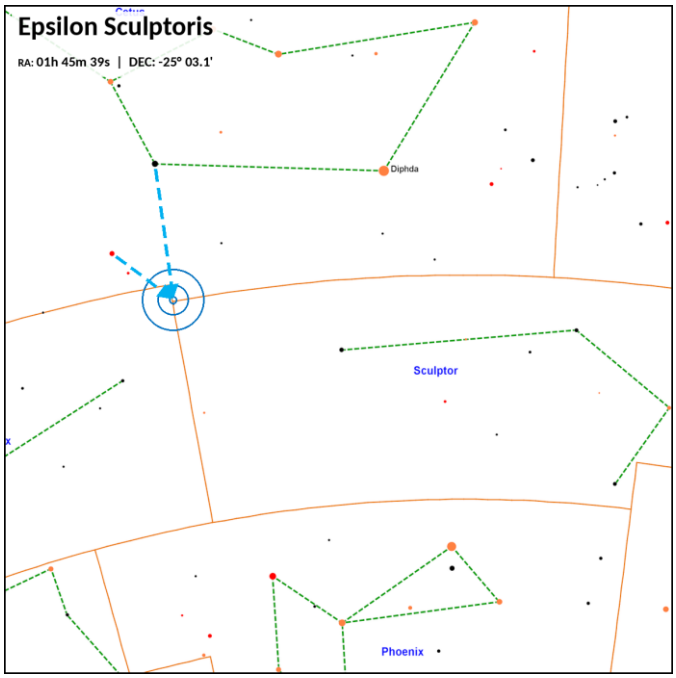


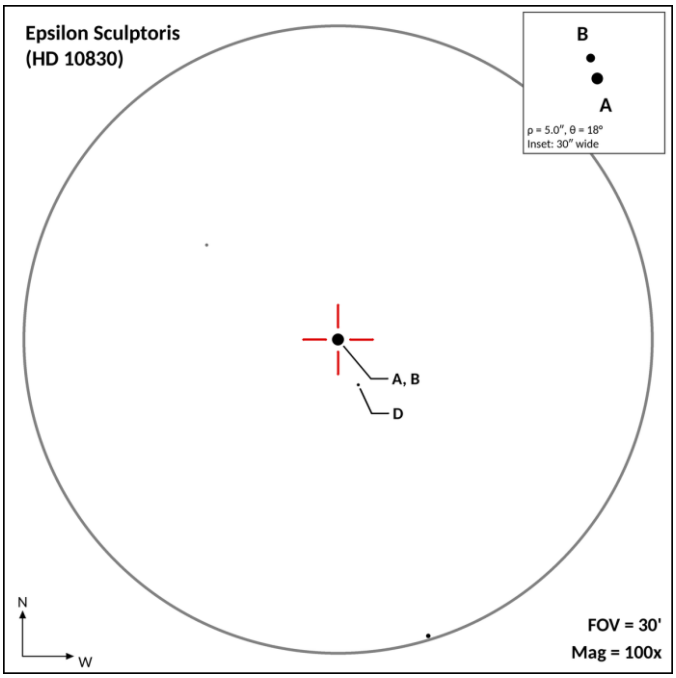
NGC 289 (G || Mag=10.9 | Size=3.7' | SB=22.4 | mBortle=4 | mApt=130mm | MC=SB(rs)bc |) Located 76 million light years away. This is a Type II Seyfert galaxy with an active galactic nucleus. A dwarf elliptical companion (PGC 708504) lies just north of this galaxy and may be detectable in large instruments.



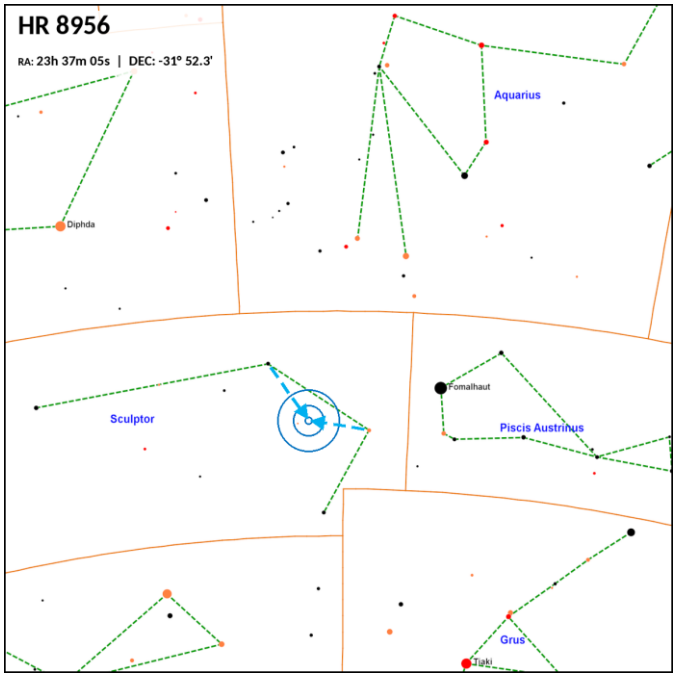


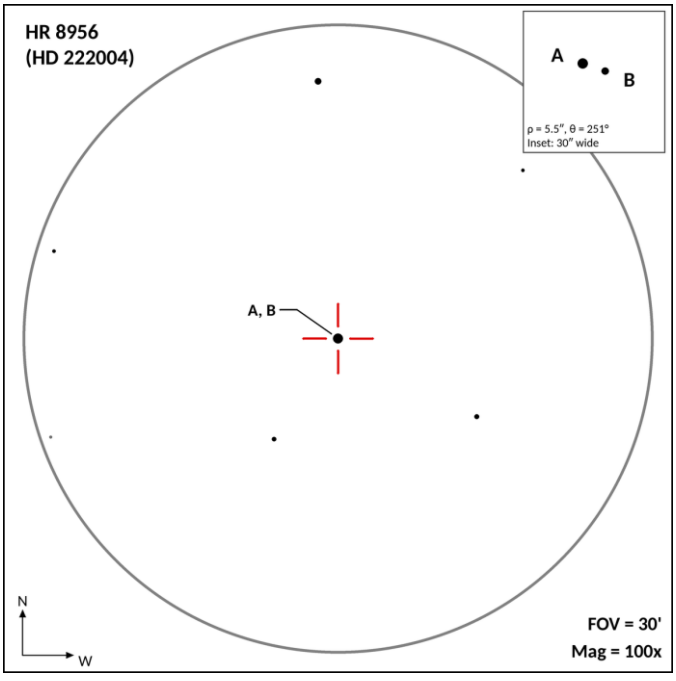
Epsilon Sculptoris (MS-3 || **AB** | Mag=5.38 / 8.5 | Sep=5" | PA=18° | mBortle=9 | mApt=80mm | Spec=F2V | Color=yellow-white || **AD** | Mag=5.38 / 11.74 | Sep=141.7" | PA=204° | mBortle=9 | mApt=102mm | Spec=F2V | Color=yellow-white |) This multiple star system is located 91 light years away. The AB pair is physical with an orbital period of 2,198 years while the AD pair is not physical. The AC pair is not listed because the C component is only magnitude 15. Considered a showcase multiple star system.





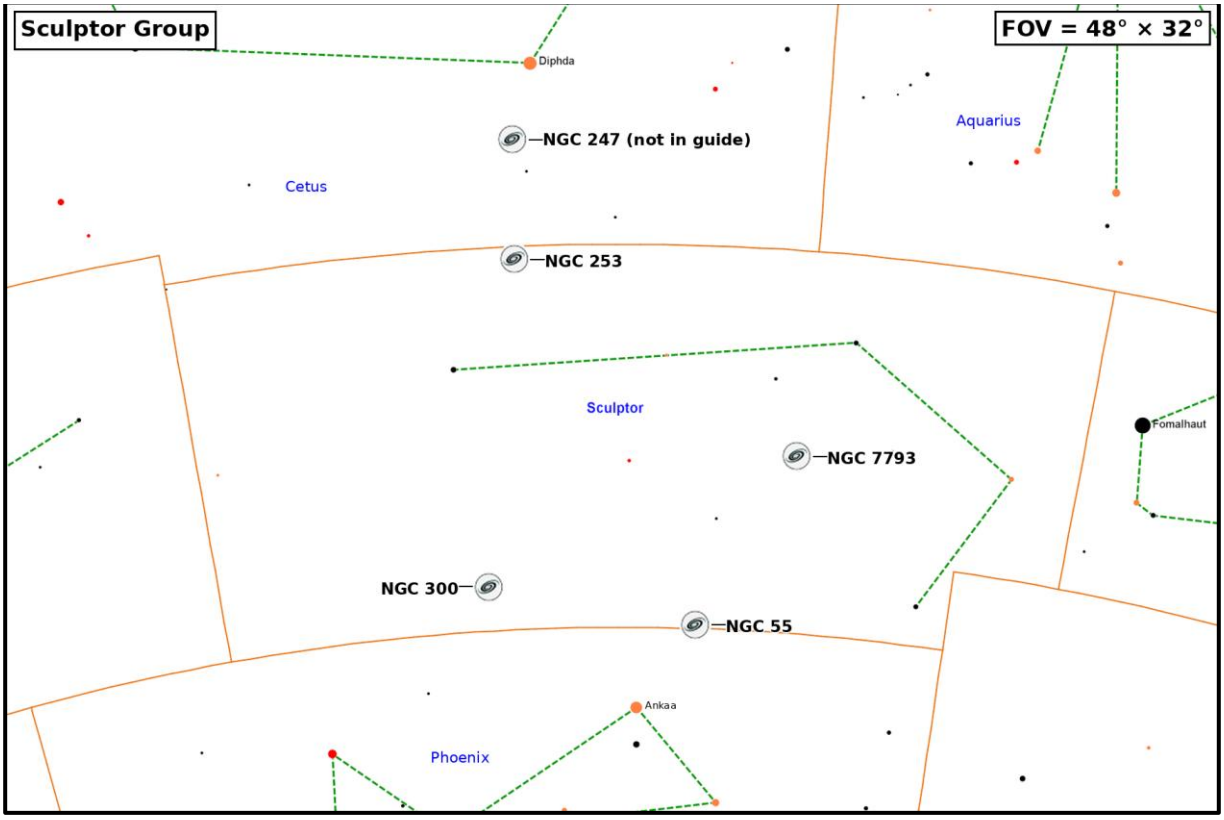
HR 8956 (DS || **AB** | Mag=6.69 / 9.92 | Sep=5.5" | PA=251° | mBortle=9 | mApt=70mm | Spec=K1III | Color=orange |) Located 800 light years away, this is a physical double. The primary is an orange giant. The orbital period of this physical double system is not known.





Constellation Guide

Sculptor Group (NGC-253)



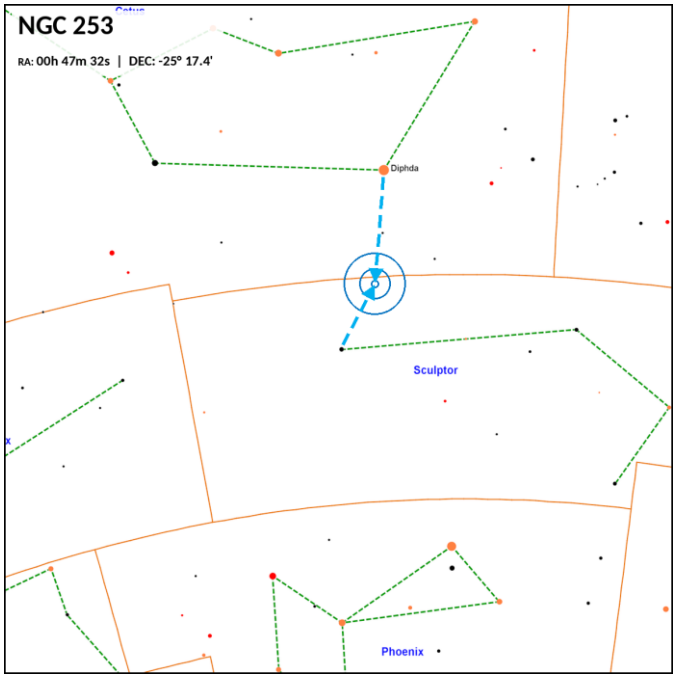
The Sculptor Group region contains NGC 253, NGC 7793, NGC 55 and NGC 300.

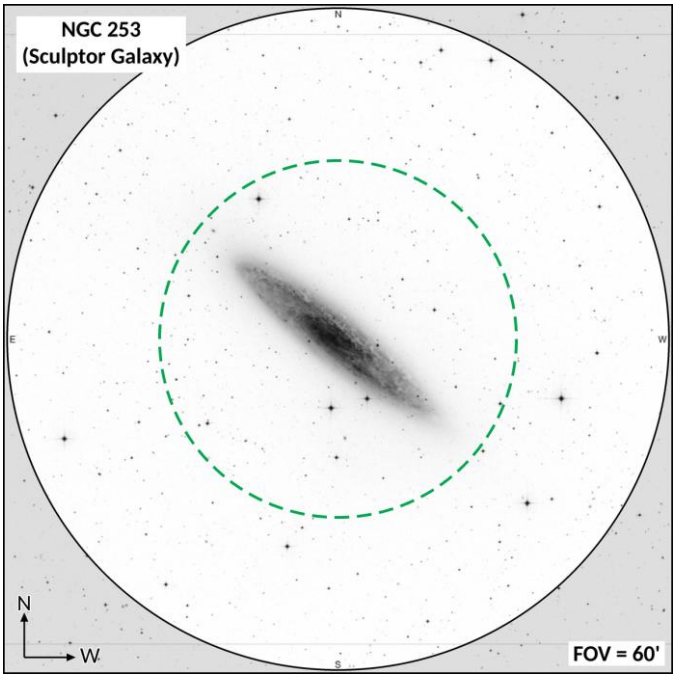
The Sculptor Group, also catalogued as the NGC 253 Group (LGG 4) and known as the South Polar Group, is the nearest group of galaxies beyond our own Local Group. It lies close to the south galactic pole, where we look straight out of the Milky Way's disk through very little dust, which is why its large, bright galaxies are so easy to see. Its center is roughly 3.9 megaparsecs (about 13 million light years) away, and its brightest member, the starburst galaxy NGC 253, sits at the heart of a gravitationally bound core.

The Sculptor Group is not one compact cluster. It is a loose filament of galaxies stretched along our line of sight, so members that look close together on the sky can lie at very different distances. NGC 55 (about 6.5 million light years) and NGC 300 (about 6.1 million light years) are much closer than NGC 253 (about 11.4 million light years) and NGC 7793 (about 12.2 million light years). Distance studies by Karachentsev and colleagues found the filament breaks into several smaller, loose groupings around NGC 300, NGC 253 and NGC 7793, and NGC 55 and NGC 300 may form their own bound pair in the foreground.

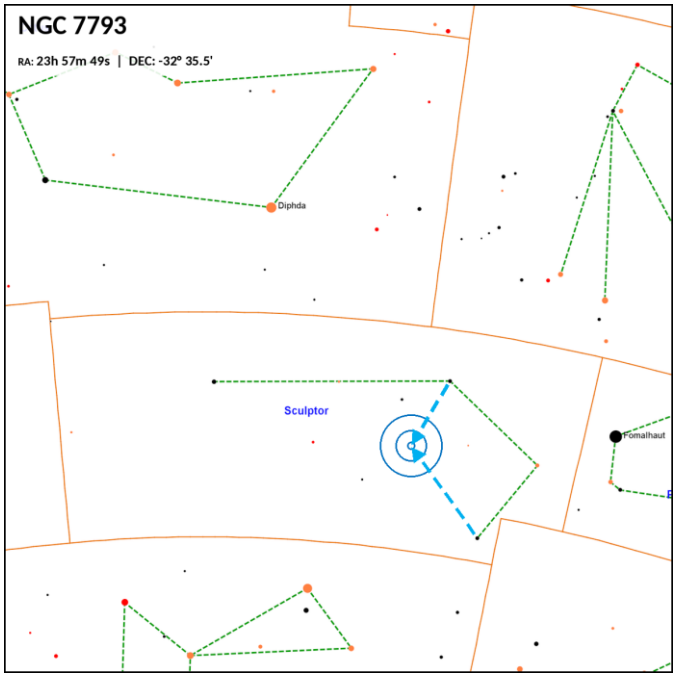
In this guide the group is represented by four of its brightest galaxies. NGC 253 marks the bound core and NGC 7793 is a confirmed member farther back. NGC 55 and NGC 300 are traditionally counted as members, though they are probably a separate foreground pair. A fifth bright member, NGC 247, lies about 4.5° north of NGC 253, across the border in Cetus, and is not included in this guide.

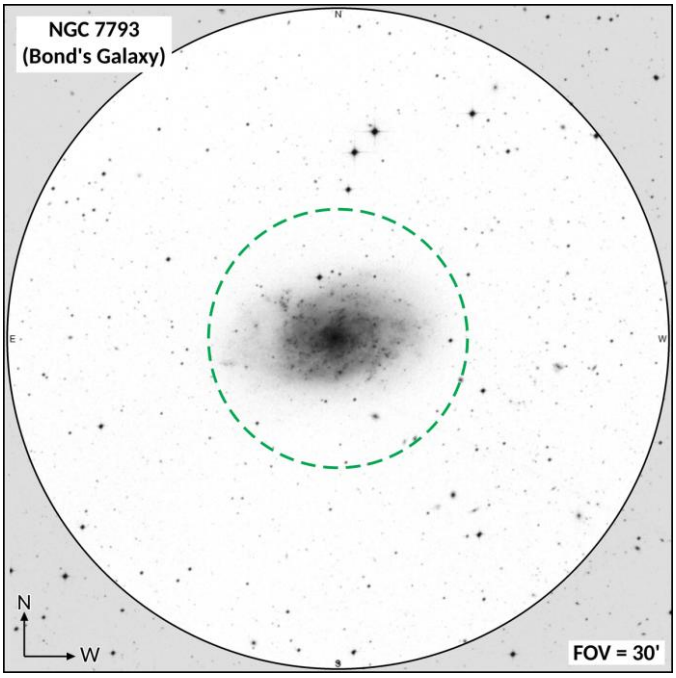
NGC 253 (G || Mag=7.1 | Size=25'x7' | SB=21.3 | mBortle=8 | mApt=50mm | MC=SAB(s)c |) The Sculptor Galaxy is an intermediate spiral galaxy and a starburst galaxy (undergoing a period of intense star formation) and one of the brightest galaxies in the sky after the Andromeda Galaxy. See map and description above.



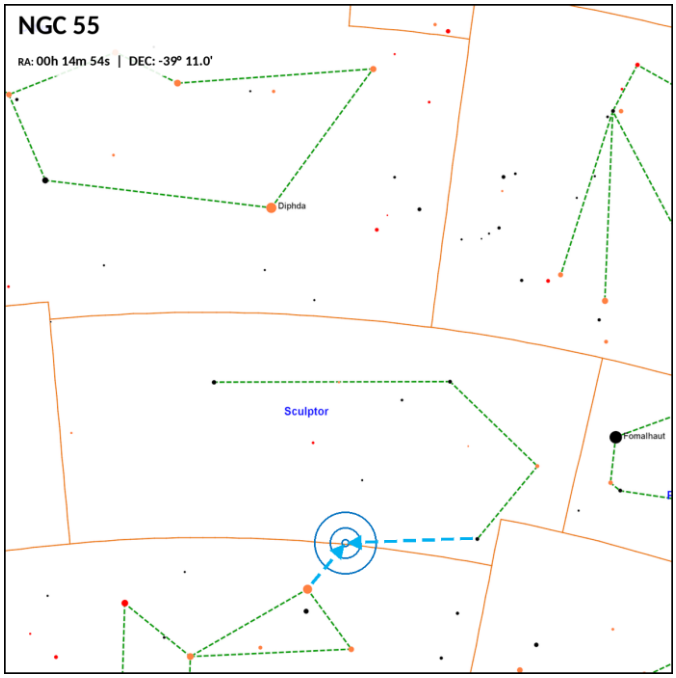


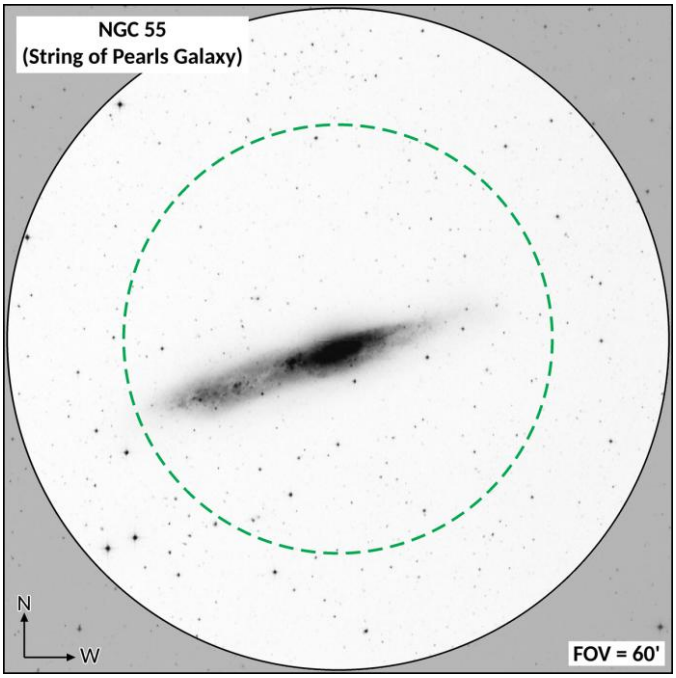
NGC 7793 (G || Mag=9 | Size=9.1' | SB=22.4 | mBortle=5 | mApt=50mm | MC=SA(s)d |) Known as Bond's Galaxy, this is a flocculent spiral galaxy (a spiral galaxy with patchy discontinuous spiral arms) located 12.2 million light years away. NGC 7793 is one of the five brightest galaxies within the Sculptor Group.



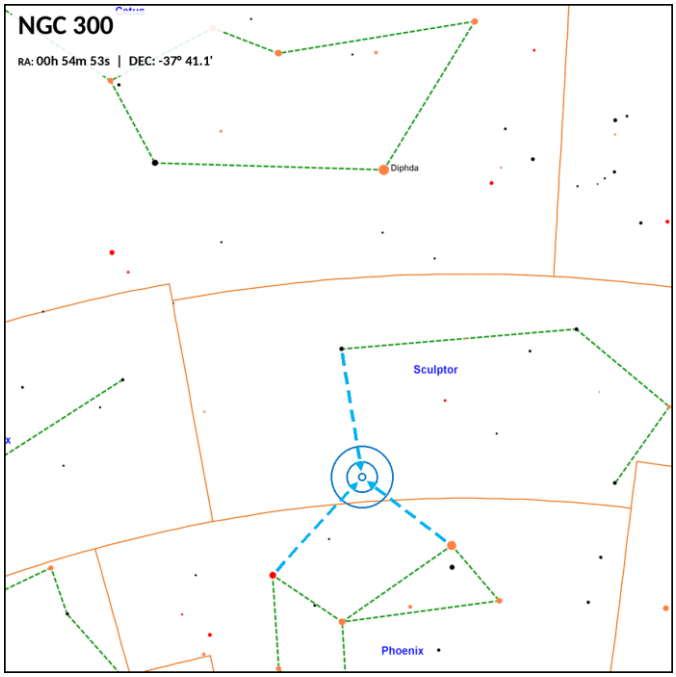


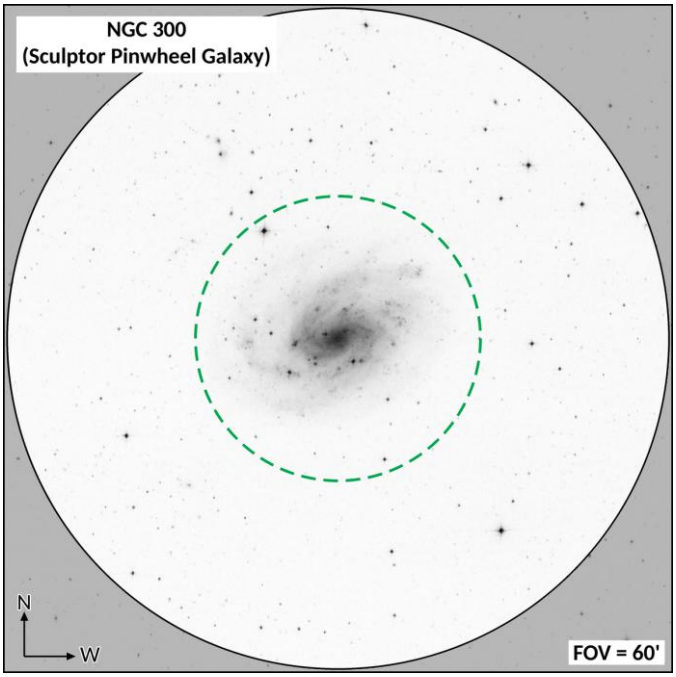
NGC 55 (G || Mag=8.1 | Size=30'x6.3' | SB=22.4 | mBortle=5 | mApt=50mm | MC=SB(s)m |) Also known as the String of Pearls Galaxy, this galaxy is located 6.5 million light years away and forms a gravitationally bound pair with NGC 300. The pair is traditionally counted as part of the Sculptor Group, but recent distance measurements suggest the two galaxies are probably a separate foreground pair.



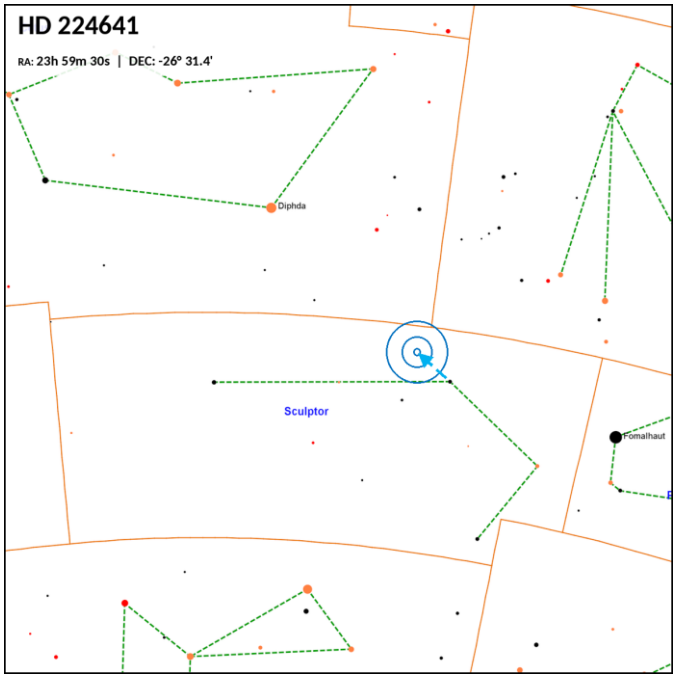


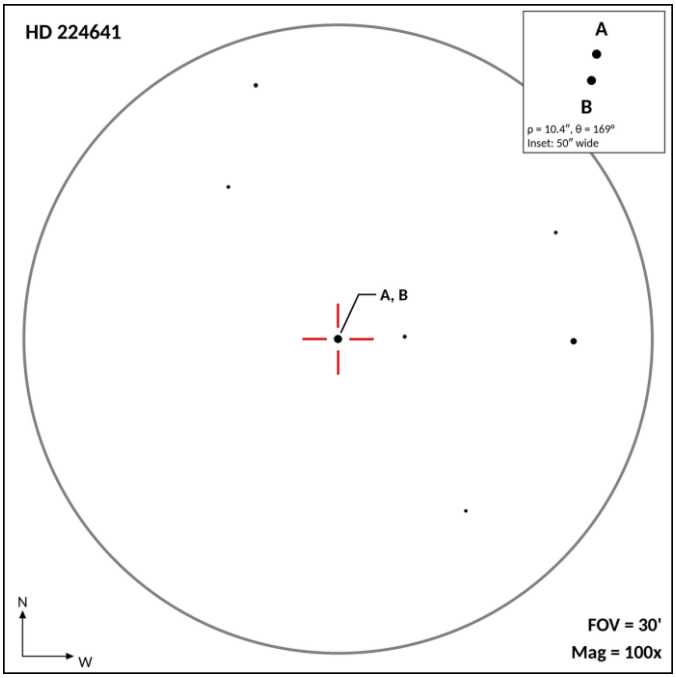
NGC 300 (G || Mag=8.1 | Size=20' | SB=23.2 | mBortle=4 | mApt=150mm | MC=SA(s)cd |) The Sculptor Pinwheel Galaxy is a spiral galaxy with a physical diameter of 94,000 light years and is physically associated with NGC 55.



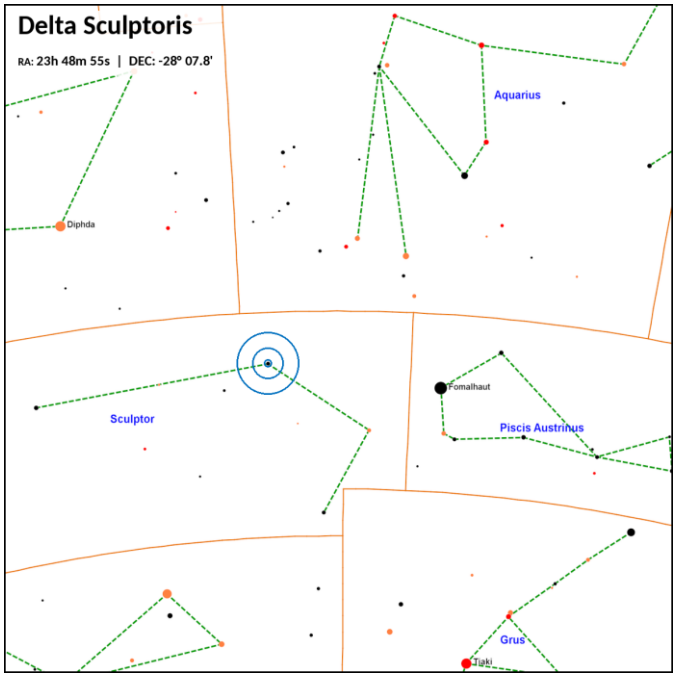


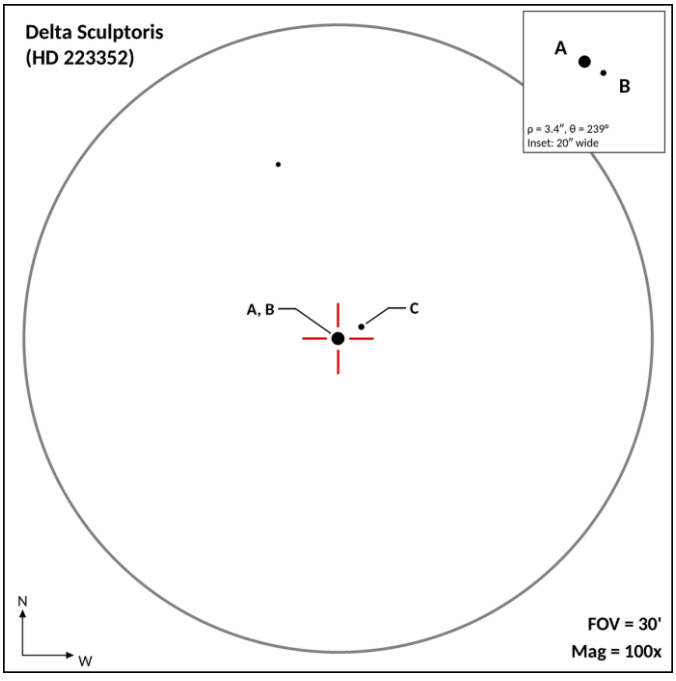
HD 224641 (DS || **AB** | Mag=8.05 / 8.3 | Sep=10.4" | PA=169° | mBortle=9 | mApt=50mm | Spec=F0 / F3V | Color=yellow-white / yellow-white |) Located 370 light years away, this is a physical double. The primary is a yellow-white main sequence star and the secondary is at least 1,180 AU from the primary. The orbital period of this system has not been determined.



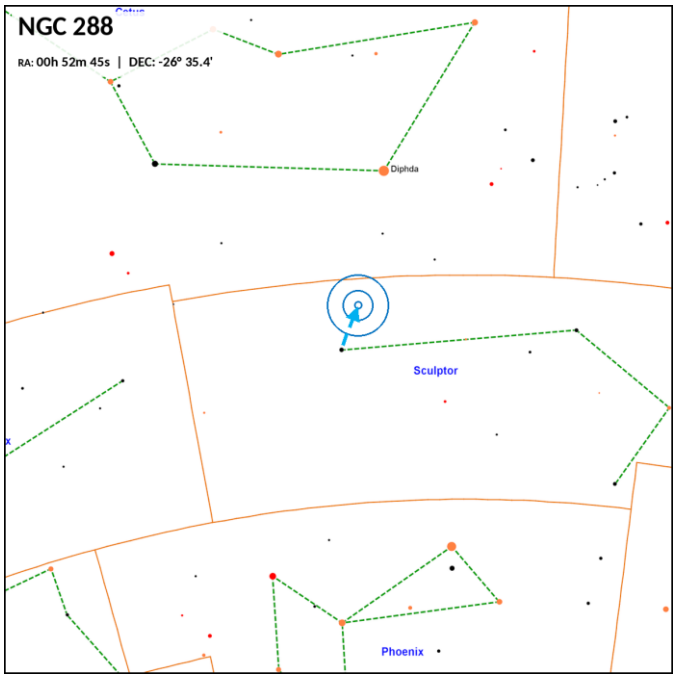


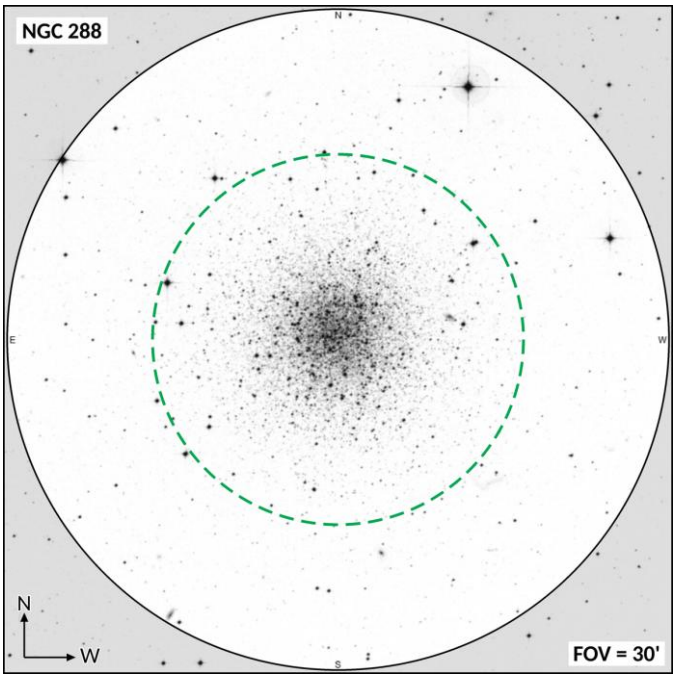
Delta Sculptoris (MS-3 || **AB** | Mag=4.57 / 11.6 | Sep=3.4" | PA=239° | mApt=250mm | Spec=A0V | Color=white || **AC** | Mag=4.57 / 9.37 | Sep=74.7" | PA=296° | mBortle=9 | mApt=50mm | Spec=A0V | Color=white |) A triple star system located 137 light years away and a member of the AB Doradus moving group, an association of stars with similar ages that share a common heading through space.



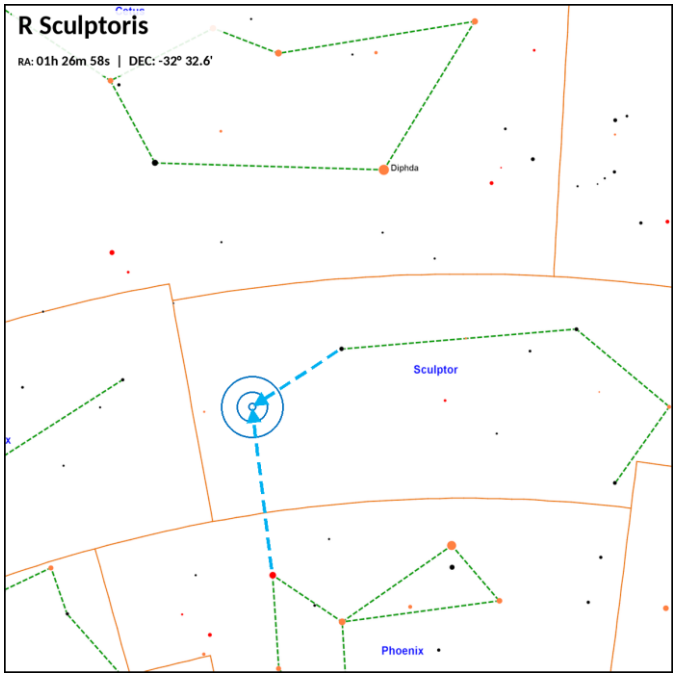


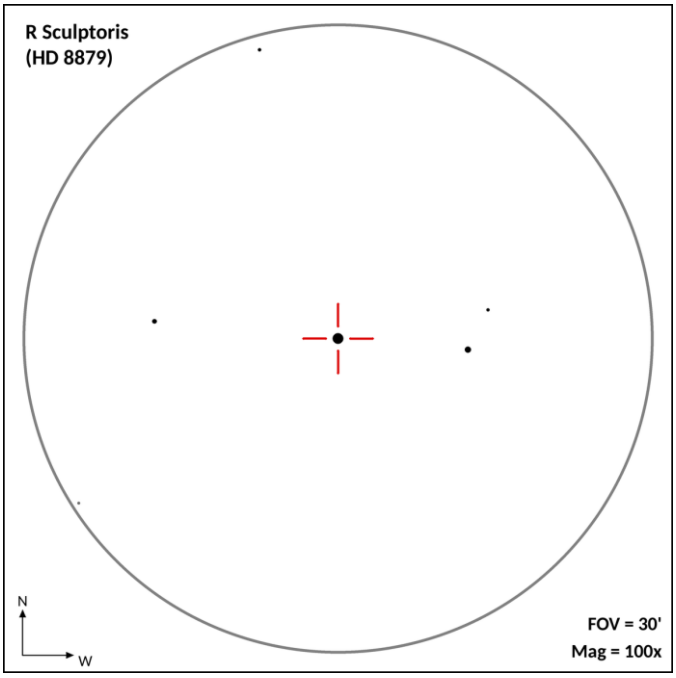
NGC 288 (GC || Mag=8 | Size=13' | SB=22.2 | mBortle=5 | mApt=50mm | MC=X |) A globular cluster located in our galaxy's Galactic halo at an estimated distance of 29,000 light years away. The Concentration Class is X-Loose concentration toward the center.



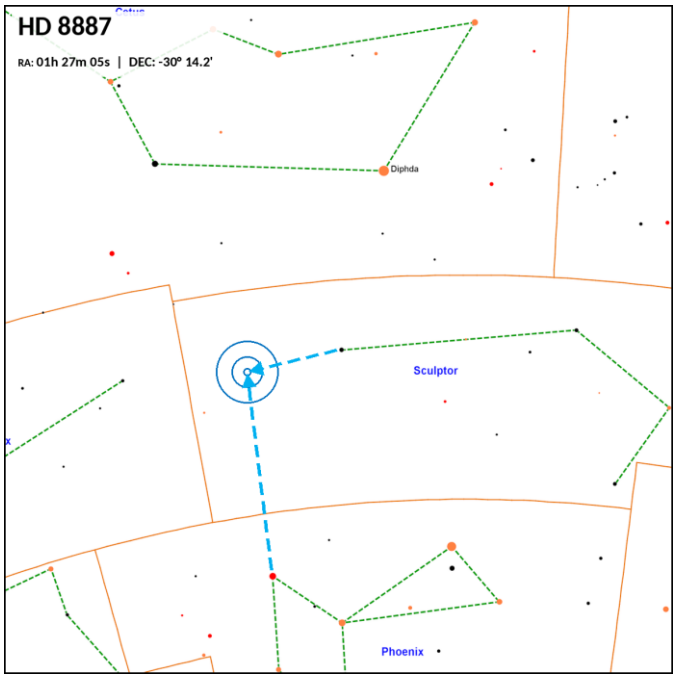


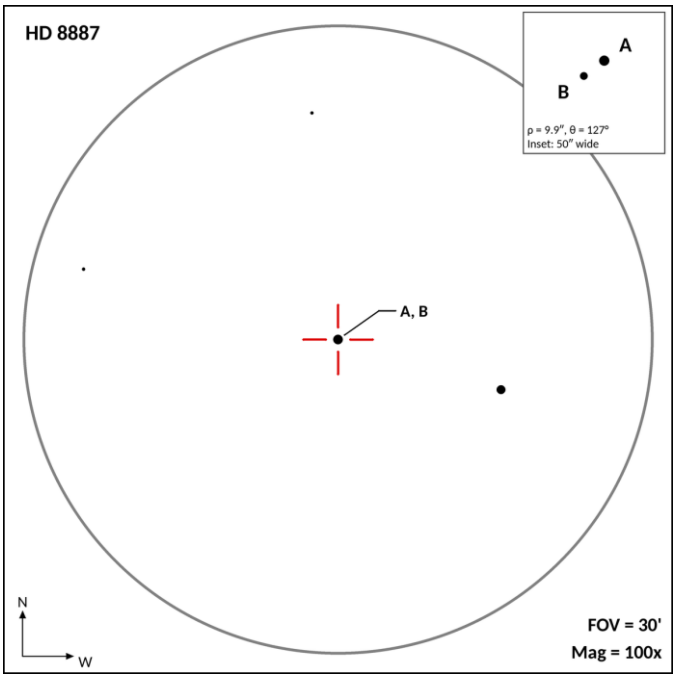
R Sculptoris (CS || Magnitude Range= 6.1 to 8.8 | Period=1.01y | Spec=C6,5ea | BV=+3.86 | Color=deep red |) A semiregular variable star located 1,180 to 1,530 light years away with a carbon rich atmosphere. The star is shedding its outer atmosphere and is surrounded by a thin shell of dust and gas. BV=+3.86 indicating a color of Deep Red.



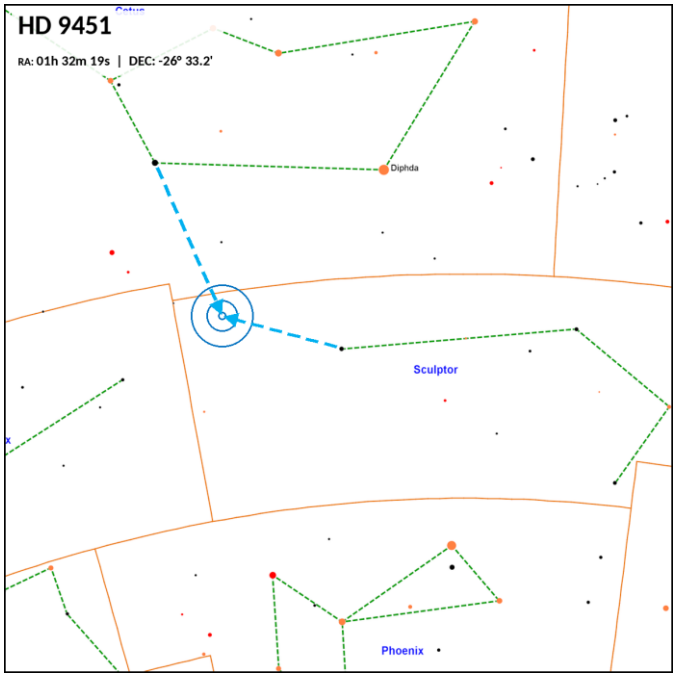


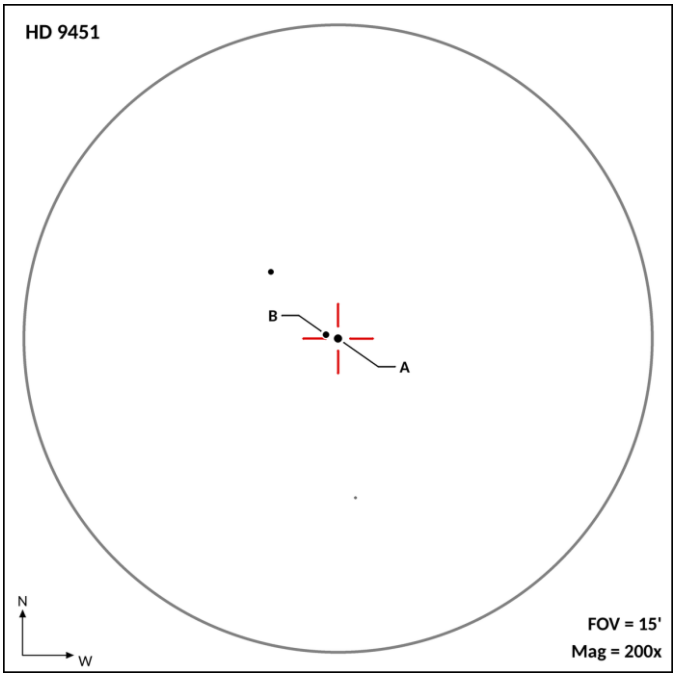
HD 8887 (DS || **AB** | Mag=6.9 / 9.56 | Sep=9.9" | PA=127° | mBortle=9 | mApt=50mm | Spec=K0/1III | Color=orange |) Located 690 light years away, the nature of this double is uncertain. The primary is an orange giant with about 16 times the Sun's diameter and 110 times its luminosity.





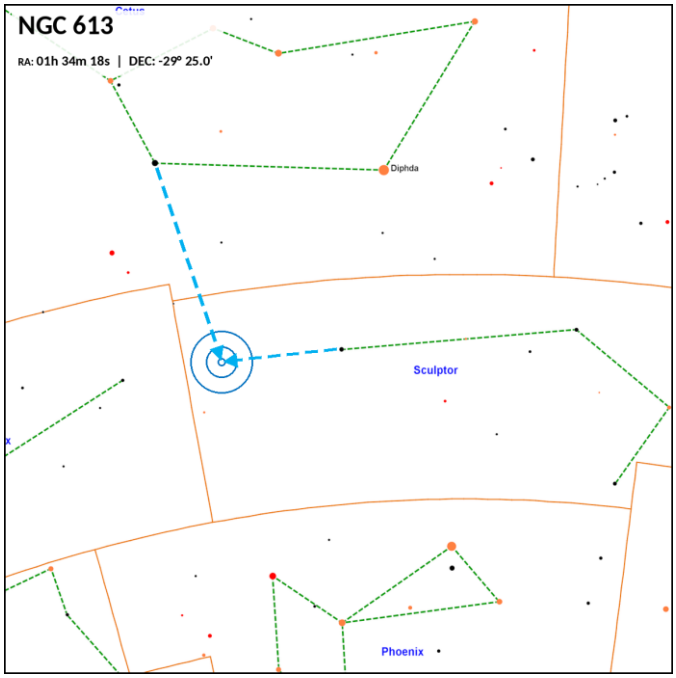
HD 9451 (DS || **AB** | Mag=7.99 / 9.14 | Sep=17.9" | PA=72° | mBortle=9 | mApt=50mm | Spec=Am / G2:V | Color=white / yellow |) Located 470 light years away, this is a physical double. The primary is a white metallic-line (Am) star. The secondary resides at least 2,600 AU from the primary, but the pair's orbital period is not known.

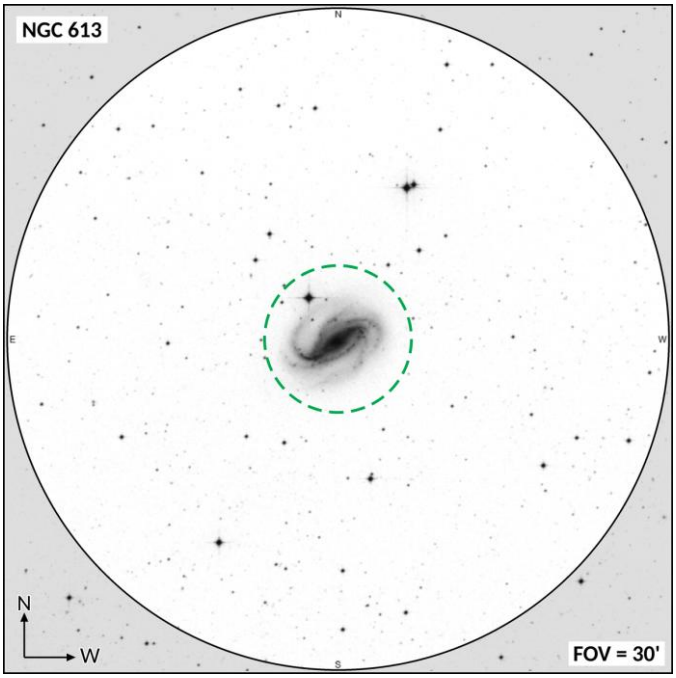




Constellation Guide

NGC 613 (G || Mag=10 | Size=5.2'x2.6' | SB=21.5 | mBortle=7 | mApt=60mm | MC=SB(rs)bc |) A barred spiral galaxy located 67 million light years away. This galaxy has a bar across the nucleus and a weak inner ring structure circling the bar. It is suspected of having a supermassive black hole with a mass in the range of 19 to 96 million times that of the mass of our Sun.





Observation Log: Sculptor (Scl)

Equipment Config A: _____ Config B: _____

Notes: _____

Date	Time	Config	Target	Notes

Date	Time	Config	Target	Notes

Constellation Guide

Observation Log: Sculptor (Scl)

Equipment Config A: _____ Config B: _____

Notes: _____

Date	Time	Config	Target	Notes

Date	Time	Config	Target	Notes

References, Resources and Tools used to create this document

Constellation Guide

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
  - Aladin Lite – Source for a number of deep-sky images

Applications

- SkyTools 4.1 Visual Professional
- AstroPlanner Version 2.4
- Cartes du Ciel Version 4.3
- SkySafari Pro 7
- Microsoft Office Home and Business 2021 - Word
- Microsoft Visio Professional 2021
- IrfanView Version 4.72