

Constellation Guide

Constellation: Pisces (Psc)

Evening Visibility: **September – November**

Opposition: October

Latitude Visibility: **+90° to -65°**

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

Constellation Targets

HD 26, HD 531, 42 Psc, 55 Psc, 65 Psc, HD 4798 Group, [Psi1 Psc](#), [Phi Psc](#), [Zeta Psc](#), Renou 18, Z Psc, [NGC-474](#), [NGC-488](#), [NGC-514](#), [NGC-524](#), Spatula, [M-74](#), [NGC-718](#), [Alrischa](#), Circlet of Pisces, [19 Psc](#), HD 223392

Mythology/Back Story

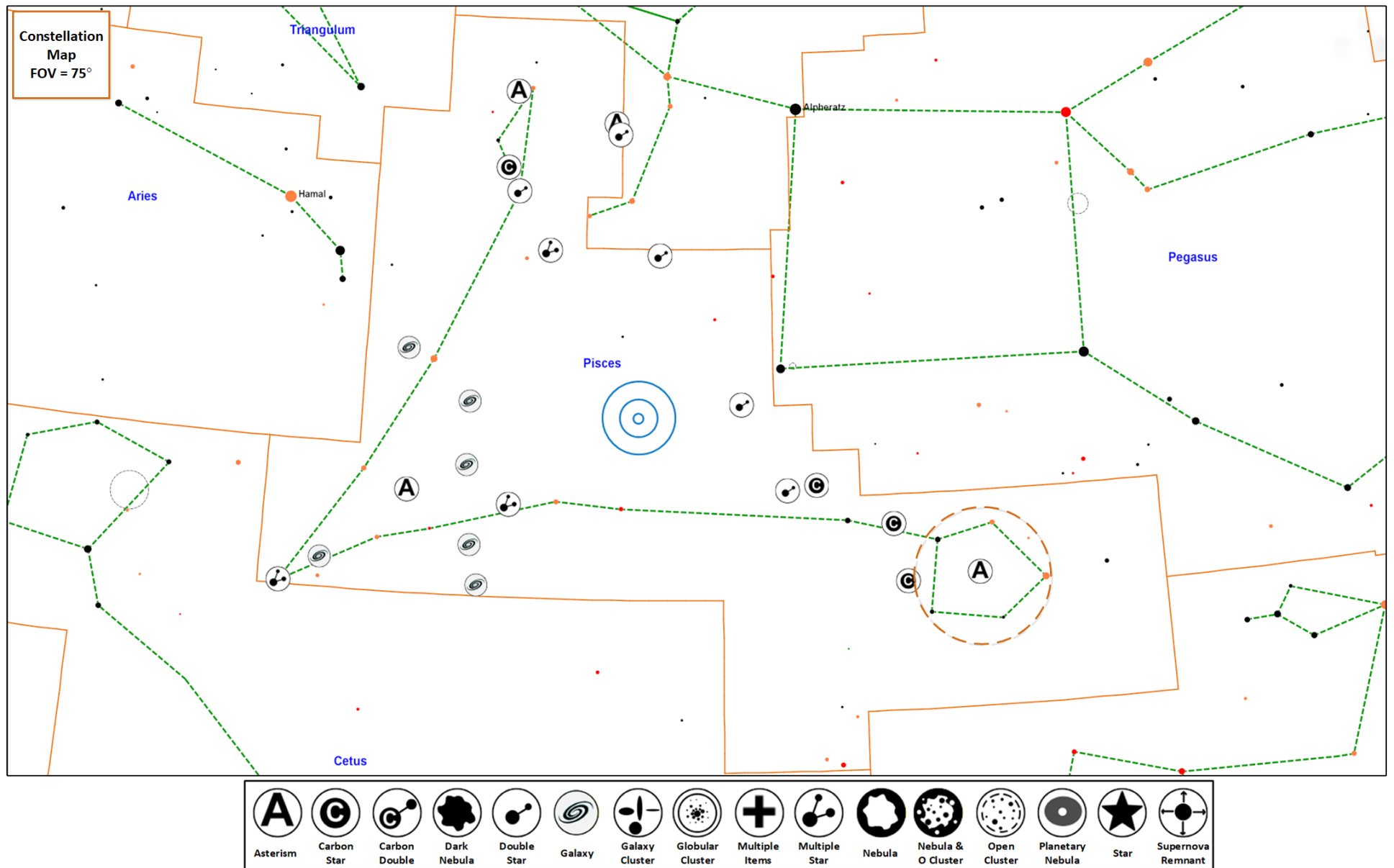
Pisces is Latin for 'the fishes'. This constellation represents Venus and Cupid, who in Roman mythology transformed themselves into fish to escape the monster Typhon. This ancient constellation is one of the 48 constellations listed by Ptolemy in the 2nd century.

Constellation Highlights

Many objects in this recommended list are multiple star systems.

- **NGC-524 Group** (GCl) – Requires large aperture and wide field
- **Psi1 Psc** (MS-3) – Triple system with blue-white components
- **Z Piscium** (CS) – Carbon Star
- **Alrischa** (MS-3) – Pale green and bluish pair
- **55 Piscium** (DS) – Orange and blue white components
- **Zeta Piscium** (MS-3) – Pale yellow and rose color pair
- **Messier 74** (G) – A difficult Messier object
- **Circlet of Pisces** (AS) – Naked-eye asterism

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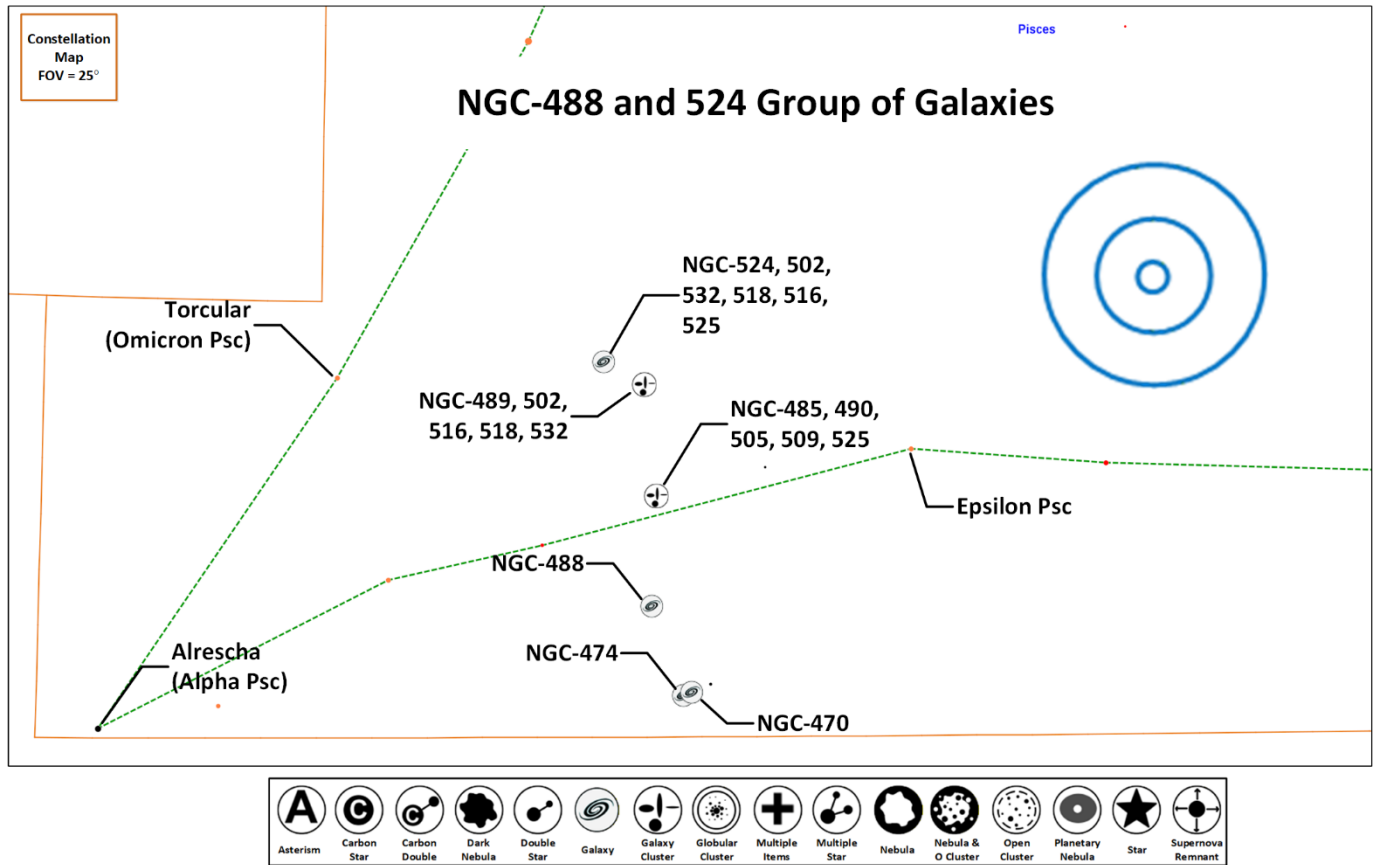
Object (Type)	Links	Gear	Aliases	Stats
HD 26 (CS)		B, T	SAO-109003; HIP 447; BD +07 5128; TYC 0594-0778-1	Mag=8.2 BV=+1.1 Color=yellow-orange
HD 531 (DS)	1	T	HIP 795; ADS 118; WDS00099+0827; STF 4; Σ4; Struve 4	AB Mag=9.5,9.6 Sep=5.2" PA=276° mBortle=9 mApt=50mm Spec=G6V, G7V Color=yellow, yellow
42 Piscium (DS)	1	B, T	SAO-091866; HIP 1772; HD 1796; HR 86; 42 Psc; GC 446; ADS 303; FK5 2020; BD+12 25	AB Mag=6.4,11.2 Sep=28.9" PA=215° mBortle=9 mApt=80mm Spec=K3III, G5 Color=topaz, emerald
55 Piscium (DS)	1	T	SAO-074182; HIP 3138; HD 3690; HR 167; ADS 558; GC 784; 55 Psc; BD+20 87; STF46; WDS00399+2126	AB Mag=5.6,8.5 Sep=6.8" PA=195° mBortle=9 mApt=50mm Spec=K0III, F3V Color=yellow-orange, yellow-white
65 Piscium (DS)	1	T	SAO-74295; HIP 3885; HD 4757; HR 230; ADS 683; BD+26 131; STF61; Σ61; WDS00499+2743	AB Mag=6.3,6.3 Sep=4.2" PA=116° mBortle=9 mApt=50mm Spec=F5III, ? Color=yellow-white, yellow-white
HD 4798 Group (AS)		B, T		Size=5.6' Stars = 7 Ref Star: SAO-074278; HIP-3719
Psi1 Psc (MS-3)	1 , 2	B, T	SAO-074482; HIP 5131; HR 310; HD 6456; STF 88; Struve 88; Σ 88; ADS 899; 74 Psc; ψ Psc	AB Mag=5.3,5.5 Sep=29.8" PA=159° mBortle=9 mApt=50mm Spec=B9.5V, A0V Color=blue-white, blue-white AC Mag=5.3,10.7 Sep=90.4" PA=124° mBortle=9 mApt=60mm Spec=B9.5V, ? Color=blue-white, ? BC Mag=5.5,10.7 Sep=68.5" PA=109° mBortle=9 mApt=60mm Spec=A0V, ? Color=blue-white, ?
Phi Piscium (DS)	1 , 2	T	SAO-074571; HIP 5742; HD 7318; HR 360; 85 Psc; Phi Psc; φ Psc; BD +23 158; STF 99; ADS 995; WDS 01137+2435; TYC 1747-2263-1	AB Mag=4.7,9.1 Sep=7.5" PA=227° mBortle=9 mApt=50mm Spec=G8III, ? Color=yellow-orange, ?
Zeta Piscium (MS-3)	1 , 2	T	SAO-109739; HIP 5737; HR 361; HD 7344; Struve 100; STF 100; Σ 100; 86 Psc; ADS 996; Revati; ζ Psc	AB Mag=5.2,6.3 Sep=22.8" PA=63° mBortle=9 mApt=50mm Spec=A7IV, F7V Color=white, yellow-white BC Mag=6.3,12.2 Sep=2" PA=74° mBortle=6 mApt=130mm Spec=F7V, ? Color=yellow-white, ?
Renou 18 (AS)		B, T		Size=18' Ref Star: SAO-074581; HD 7364
Z Piscium (CS)		T	SAO-74593; HIP 5914; HD 7561; BD +25 205; CCCS 63; TYC 1750-2134-1; Z Psc	Mag=6.7 Magnitude Range=6.5 to 7.9 Period=144d Spec=C7,3 BV=+2.86 Color=deep red
NGC-474 (G)	1	T	Levy 278; UGC 864; MCG +00-04-085; PGC 4801; Arp 227; ZWG 385.71; CGCG 385-071	Mag=11.5 Size=7.1'x6.3' SB=25.2 MC=S0
NGC-488 (G)	1	T	Levy 34; UGC 907; MCG +01-04-033; IRAS 01191+0459; PGC 4946; CGCG 411-033	Mag=10.3 Size=5.5'x3.9' SB=22.4 mBortle=4 mApt=102mm MC=SA(r)b

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Object (Type)	Links	Gear	Aliases	Stats
NGC-514 (G)	1	T	Levy 31; UGC 947; MCG +02-04-035; PGC 5139	Mag=11.7 Size=3.5'x2.8' SB=22.8 mApt=300mm MC=SAB(rs)c
NGC-524 (G)	1	T	Levy 59; UGC 968; MCG +01-04-053; PGC 5222; CGCG 411-51; IRAS 01221+0916	Mag=10.5 Size=2.8' SB=21.3 mBortle=7 mApt=60mm MC=SA(rs)0+
Spatula (AS)		B		Stars = 9 Size=90' Ref Star: SAO-109990; HIP 7366
Messier 74 (G)	1	B	NGC 628; Phantom Galaxy; UGC 1149; PGC 5974; IRAS 01340+1532; MCG +03-05-011; CGCG 460-014	Mag=9.4 Size=10.5'x9.5' SB=23.0 mBortle=4 mApt=150mm MC=SA(s)c
NGC-718 (G)	1	T	Levy 284; UGC 1356; MCG +01-05-041; IRAS 01506+0357; PGC 5993; CGCG 412-039	Mag=11.7 Size=2.4'x2' SB=22.0 mBortle=4 mApt=150mm MC=SAB(s)a
Alrischa (MS-3)	1 , 2	T	SAO-110291; HIP 9487; Alpha Psc; 113 Psc; HR 596; HD 12447; Struve 202; STF 202; Σ202; ADS 1615; α Psc; Alrescha	AB Mag=4.1,5.2 Sep=1.9" PA=258° mBortle=9 mApt=80mm Period=2,822y Spec=A0p, A3m Color=blue-white, white AC Mag=4.1,8.3 Sep=405" PA=63° mBortle=9 mApt=50mm Spec=A0p, ? Color=blue-white, ?
Circlet of Pisces (AS)		B		Stars = 5 Ref Star: SAO-128310; HIP 116771
19 Piscium (CS)	1	B, T	SAO-128374; HIP 117245; HR 9004; HD 223075; 19 Psc; TX Psc; GCVS660031	Magnitude Range= 4.8 to 5.2 Period=224d Spec=C7,2 BV=+2.78 Color=deep red
HD 223392 (CS)		B	SAO-128396; HIP 117467; BD +05 5223; TYC 0592-0649-1	Mag=8.3 BV=+1.25 Spec=C3,2 (R3) Color=orange-red

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The NGC-488 and NGC-524 Group of Galaxies

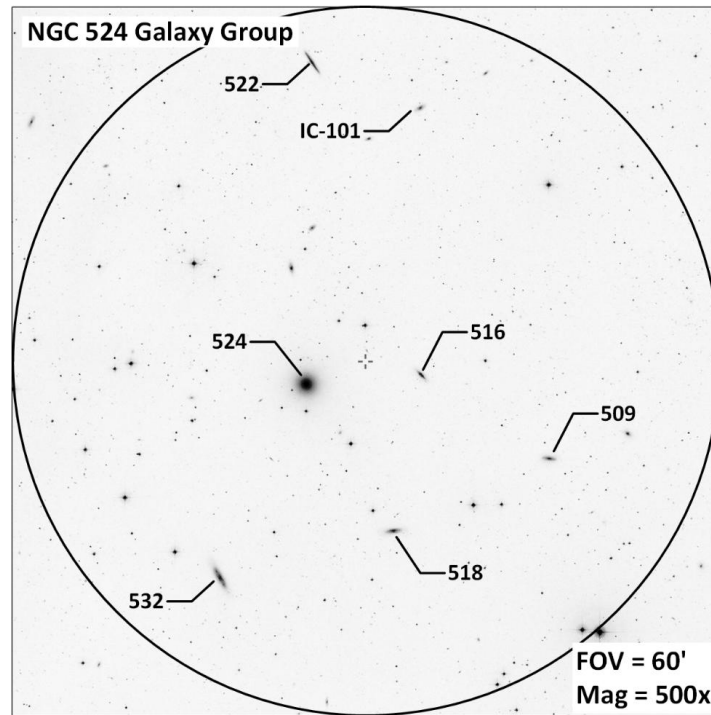


The galaxy NGC 488, along with a few smaller companions, forms a small, relatively isolated group that is part of a local filament of galaxies running through Pisces on the outer fringes of the Virgo Supercluster of galaxies. Members of the NGC 488 group include the galaxies detailed below.

NGC-488 group of galaxies

Galaxy	Type	Magnitude	Comments
NGC 488 (Included in guide)	SAB	10.3	Prototype multi-arm spiral
NGC 474 (Included in guide)	S0 pec	11.5	Arp 227 shell galaxy
NGC 470	Sb	11.8	Interacting with NGC 474
NGC 485, 490	various	13–14	Faint companions of NGC 488

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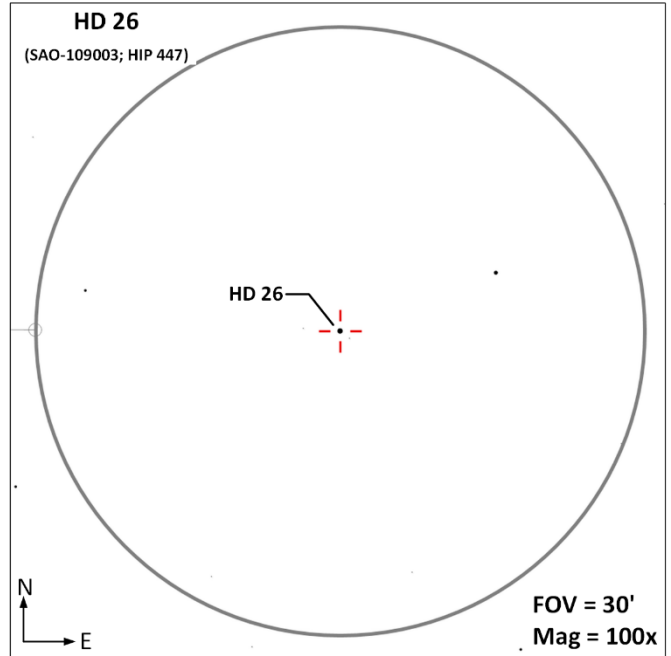
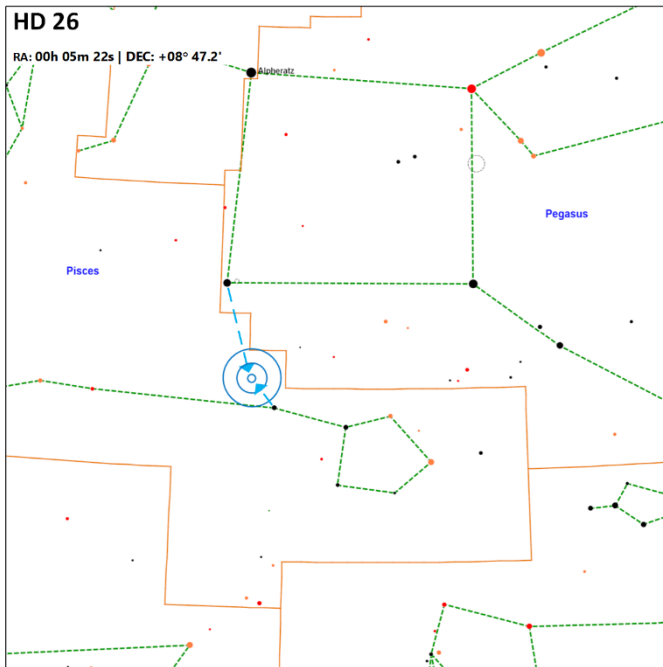
Loosely associated with the NGC 488 group, the NGC 524 group of galaxies also resides in Pisces. The NGC 524 group is one of the nicest compact galaxy groups in Pisces for a moderate-to-large aperture telescope. The group lies about 90 million light years away and is estimated to have a mass around 1.7×10^{13} solar masses. Most bright members of this group are classified as lenticular galaxies. Spectroscopy of the group's brightest disk galaxies shows that four of the five studied have bulge stellar populations with similar mean ages of 3–6 billion years, and nuclear starbursts that occurred nearly simultaneously about 1–2 billion years ago — suggesting a group-wide event triggered a synchronized episode of star formation in these already-ancient galaxies, a result described as 'synchronous evolution'.

NGC-524 group of galaxies

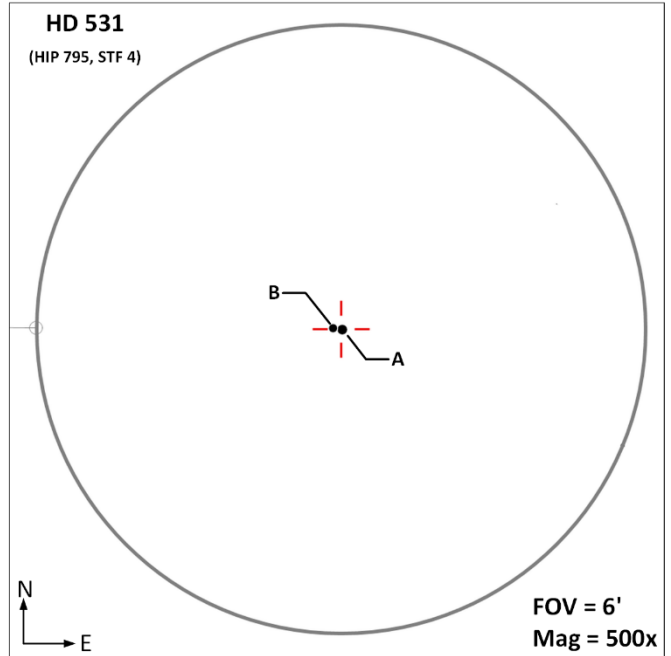
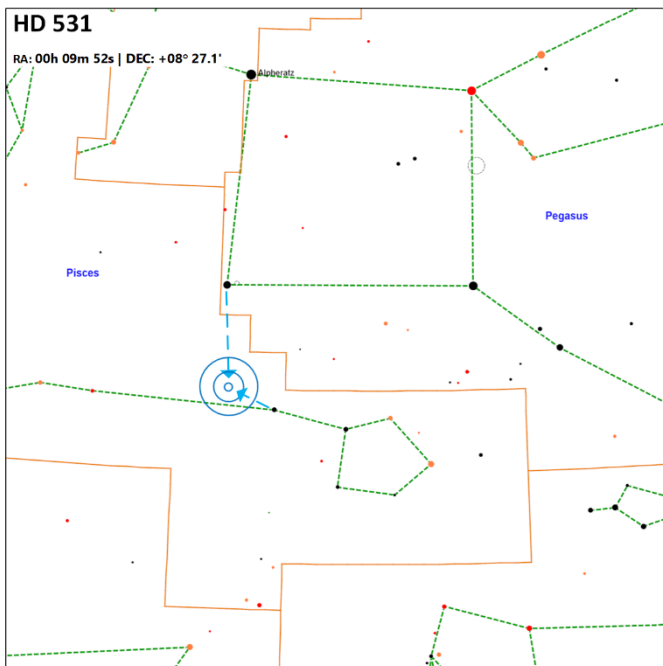
Galaxy	Type	Magnitude	Comments
NGC 524 (Included in guide)	SA(rs)0+	10.5	Central, brightest member; face-on lenticular with residual dust spiral
NGC 489	S	12.7	Edge-on; Assigned to the NGC 524 group in some sources
NGC 502	S0	12.9	The odd one out in the synchronous-starburst result
NGC 532	Sab	12.9	Edge-on spiral; Herschel's 1786 companion discovery
NGC 518	Sa	13.4	Edge-on early-type spiral
NGC 516	S0	13.5	Edge-on lenticular
NGC 525	S0	13.6	Faint, small
NGC 509	S0	13.9	Edge-on lenticular
NGC 505	S0	14.0	Faintest of the NGC core members

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HD 26 (CS || BV=+1.1 | Color=yellow-orange |) Located 1,091 light years away, this is an orange giant 10 times the Sun's diameter in size with 63 times the Sun's luminosity. It is a CH-type carbon star and is on the Astronomical League Carbon Star observing program list.

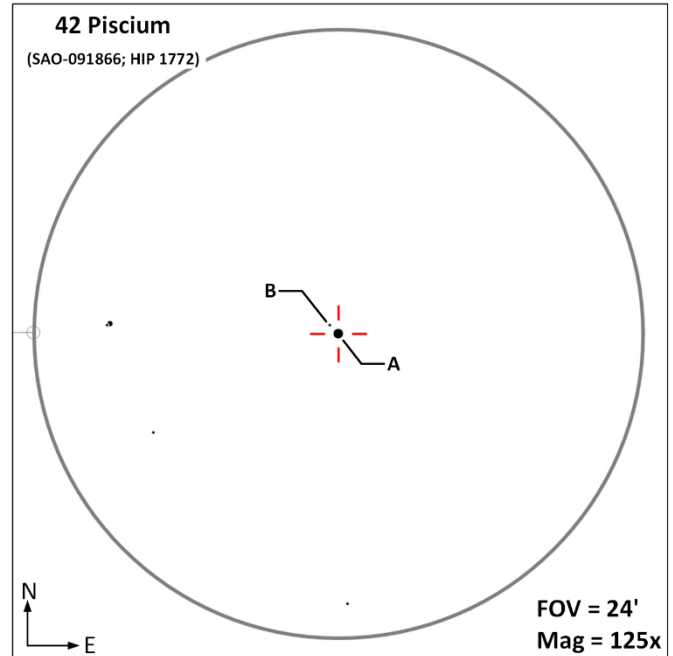
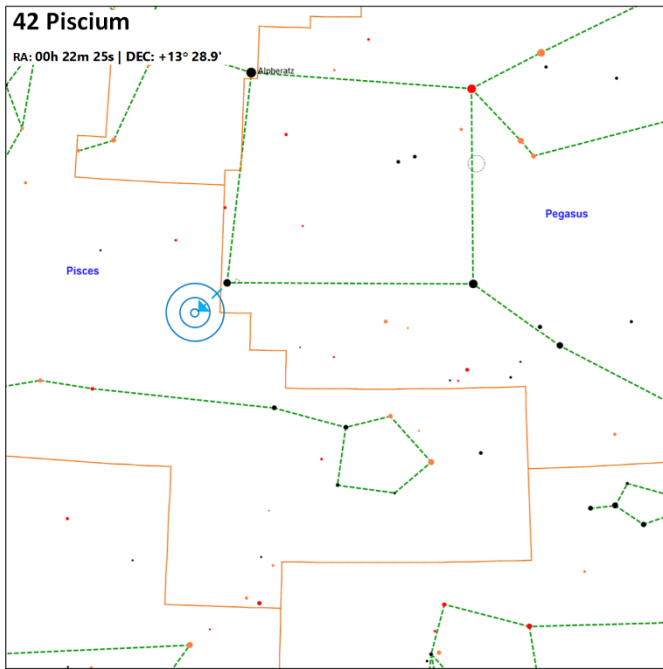


HD 531 (DS || AB | Mag=9.5,9.6 | Sep=5.2" | PA=276° | mBortle=9 | mApt=50mm | Spec=G6V, G7V | Color=yellow, yellow |) Located 249 light years away, this object appears on a number of lists including the *120 Colorful Stars* list.

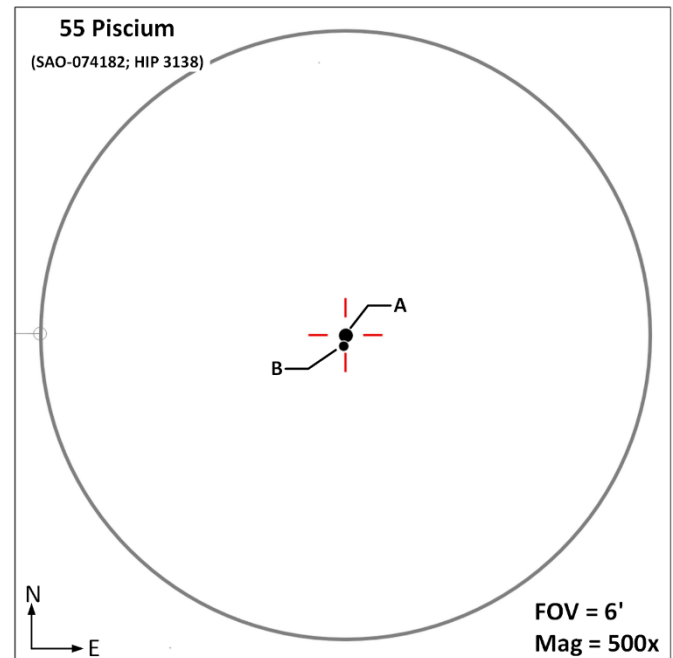
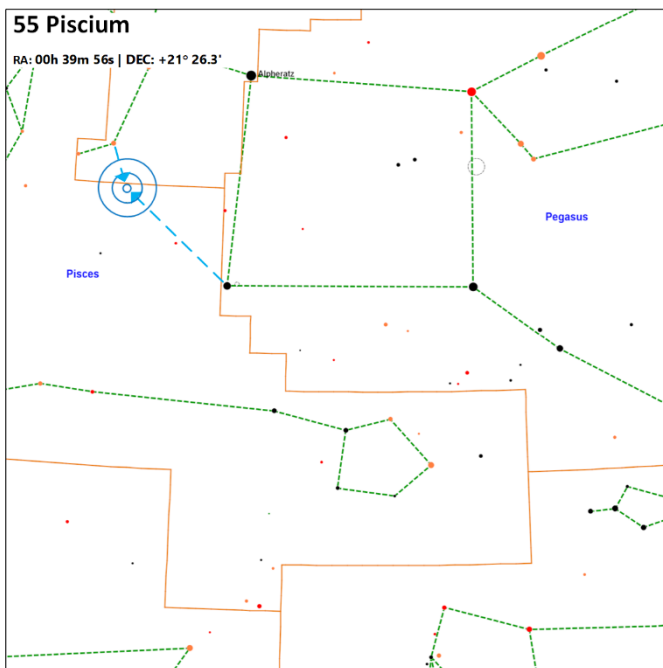


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42 Piscium (DS || AB | Mag=6.4,11.2 | Sep=28.9" | PA=215° | mBortle=9 | mApt=80mm | Spec=K3III, G5 | Color=topaz, emerald |) Located 502 light years away, this is an optical double. RASC Colored Doubles list describes this as topaz and emerald.

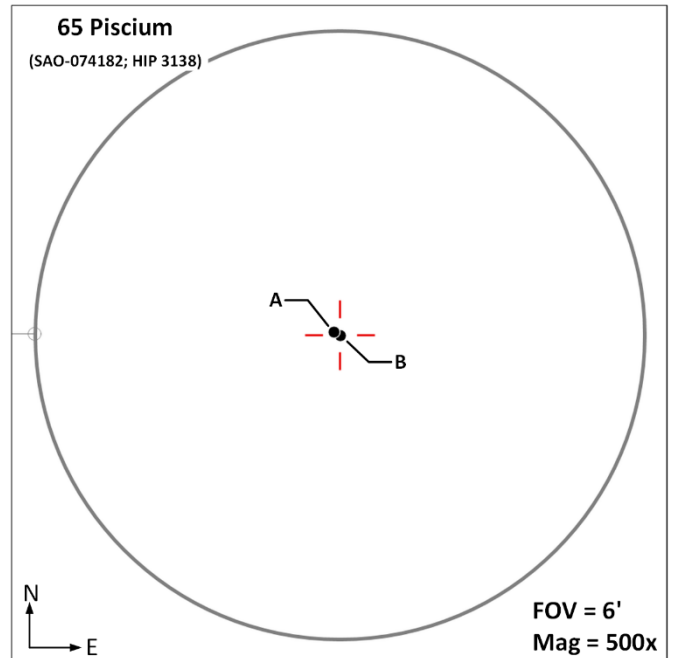
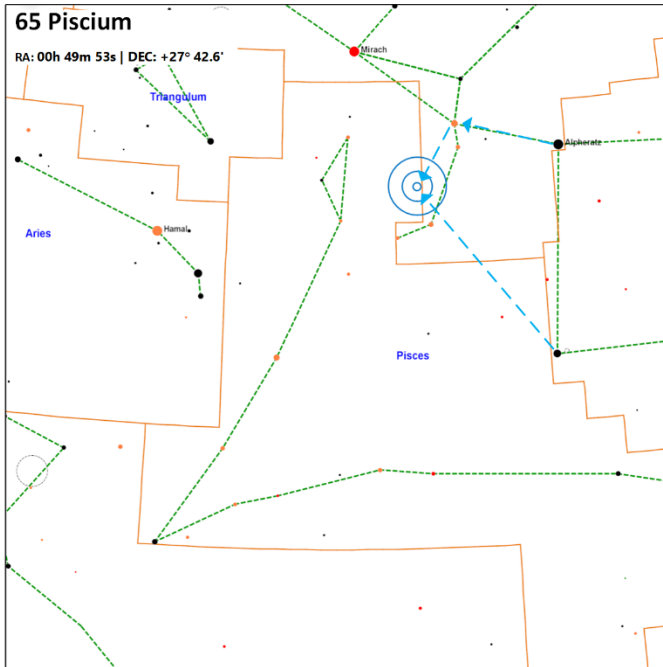


55 Piscium (DS || AB | Mag=5.6,8.5 | Sep=6.8" | PA=195° | mBortle=9 | mApt=50mm | Spec=K0III, F3V | Color=yellow-orange, yellow-white |) This double is physical and appears on a number of multiple and colored star system lists; descriptions range from orange and white-blue to yellowish-orange and blue.

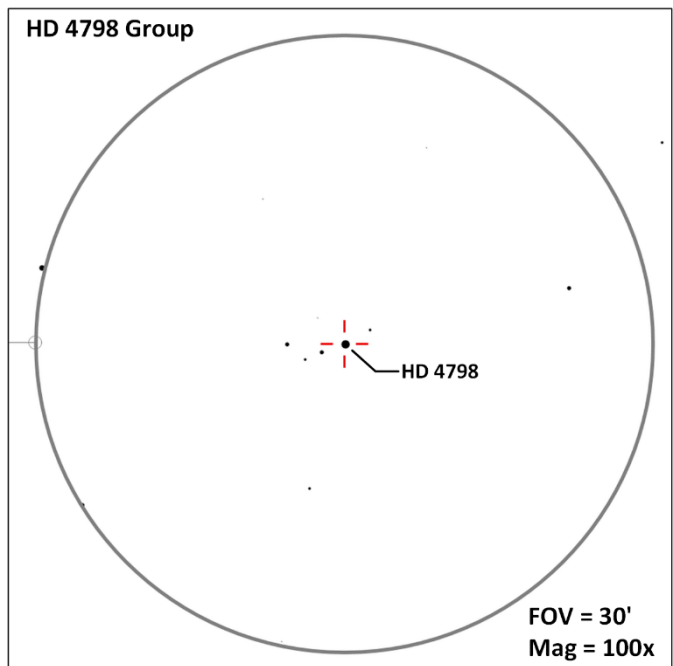
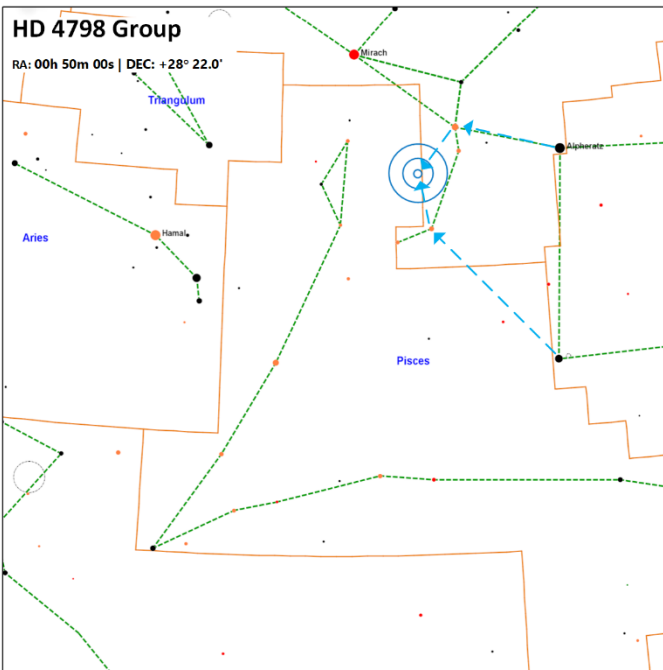


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65 Piscium (DS || AB | Mag=6.3,6.3 | Sep=4.2" | PA=116° | mBortle=9 | mApt=50mm | Spec=F5III, ? | Color=yellow-white, yellow-white |) This double is physical and is composed of two almost identical stars. This is an excellent star system for testing the ability of a telescope to split pairs, since the two stars are almost identical in most respects.

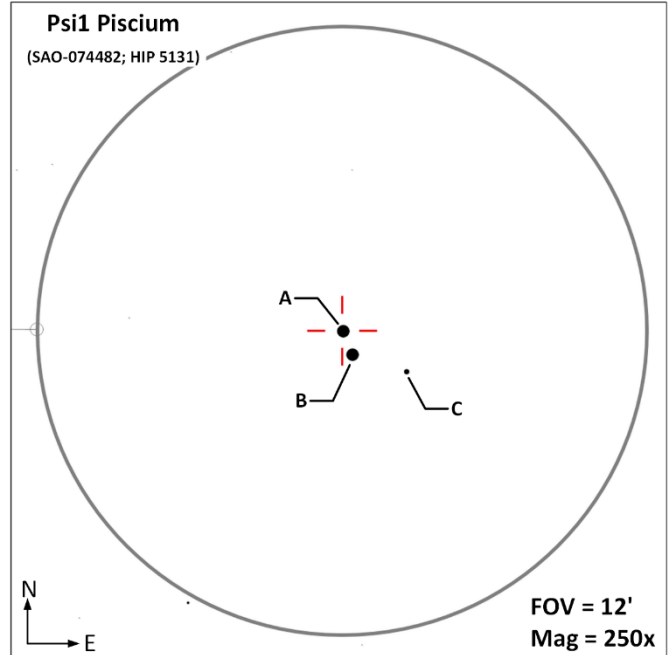
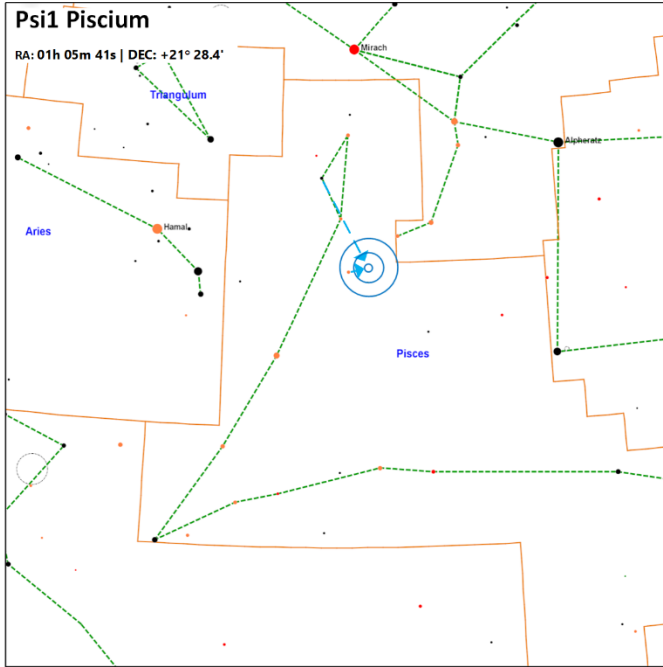


HD 4798 Group (AS || Size=5.6' | Stars= 7 | Ref Star: SAO-074278; HIP-3719 |) Named after the brightest star in the group. Looks like a flying wing with 7 stars in the shape of a triangle with one point facing south.

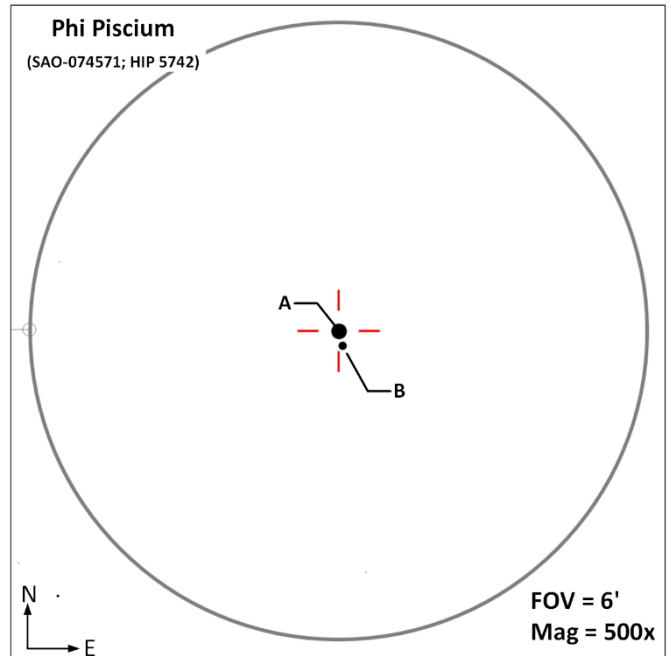
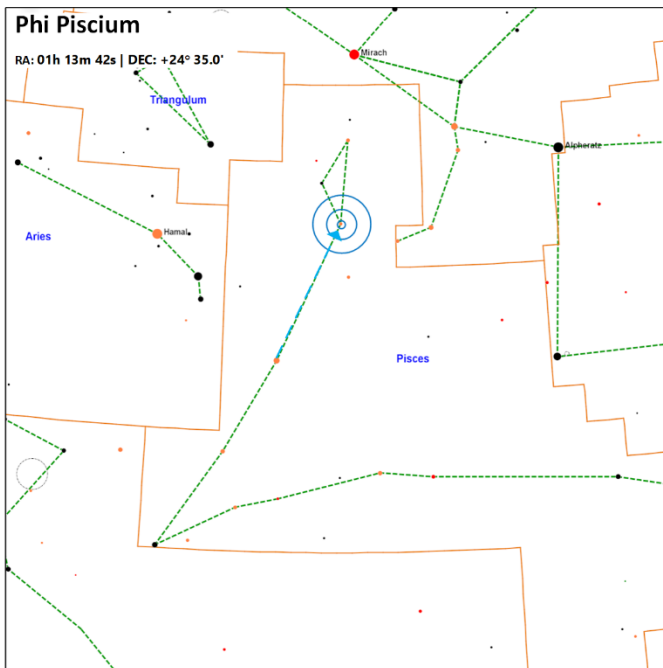


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Psi1 Psc (MS-3 || **AB** | Mag=5.3,5.5 | Sep=29.8" | PA=159° | mBortle=9 | mApt=50mm | Spec=B9.5V, A0V | Color=blue-white, blue-white || **AC** | Mag=5.3,10.7 | Sep=90.4" | PA=124° | mBortle=9 | mApt=60mm | Spec=B9.5V, ? | Color=blue-white, ? || **BC** | Mag=5.5,10.7 | Sep=68.5" | PA=109° | mBortle=9 | mApt=60mm | Spec=A0V, ? | Color=blue-white, ? |) Located 280 light years away. The AB pair share a common proper motion and are generally considered physical; the faint C component is likely an optical companion.

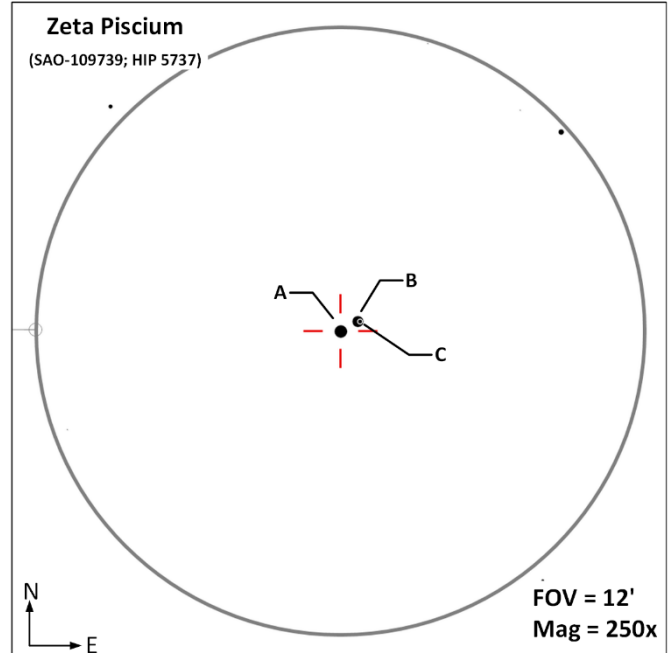
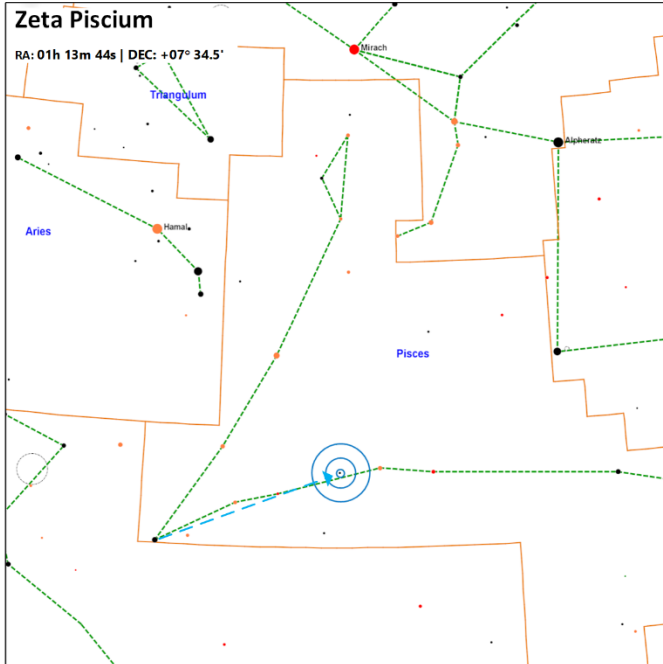


Phi Piscium (DS || **AB** | Mag=4.7,9.1 | Sep=7.5" | PA=227° | mBortle=9 | mApt=50mm | Spec=G8III, ? | Color=yellow-orange, ? |) Located 380 light years away, this system is listed on multiple double-star lists.

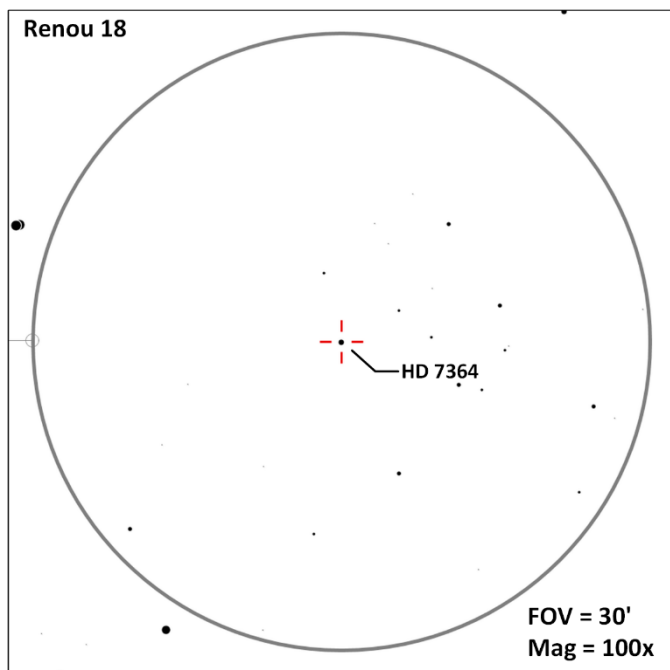
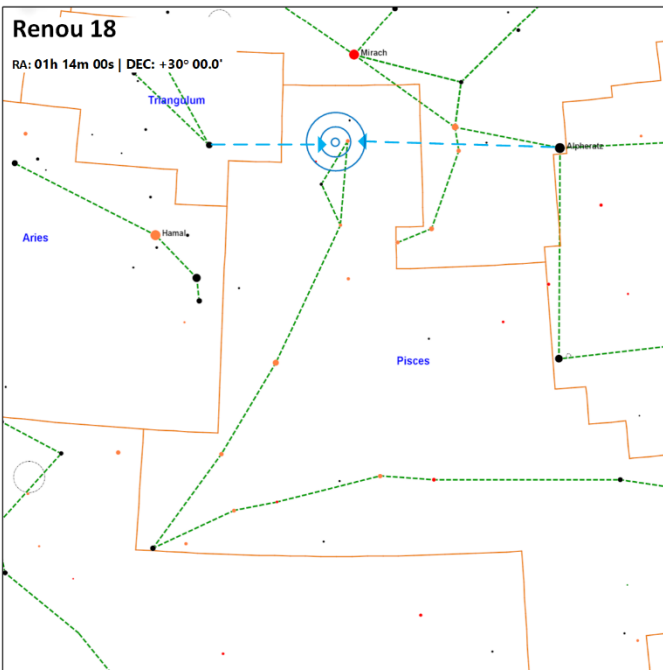


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Zeta Piscium (MS-3 || **AB** | Mag=5.2,6.3 | Sep=22.8" | PA=63° | mBortle=9 | mApt=50mm | Spec=A7IV, F7V | Color=white, yellow-white || **BC** | Mag=6.3,12.2 | Sep=2" | PA=74° | mBortle=6 | mApt=130mm | Spec=F7V, ? | Color=yellow-white, ?) This may be a quadruple star system but the Aa, Ab components are too close to resolve for typical Earth-bound telescopes. This system has been described as pale yellow and rose. The system exists on a number of multiple/colorful star system lists.

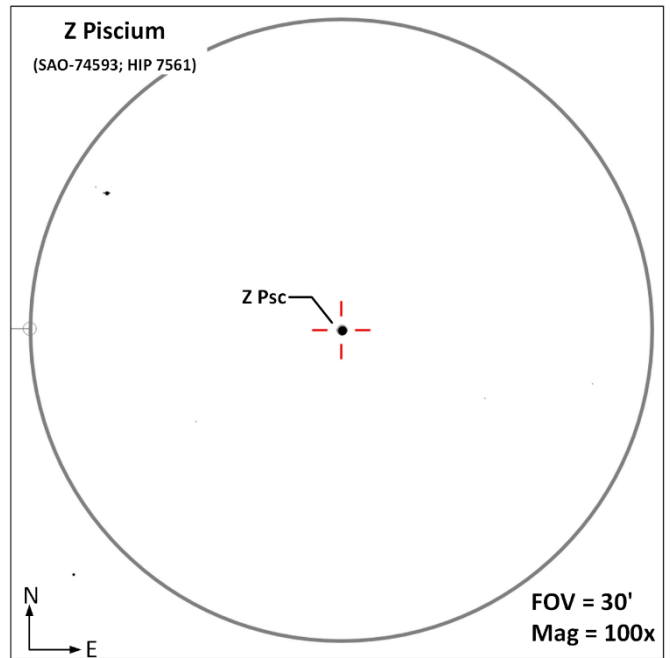
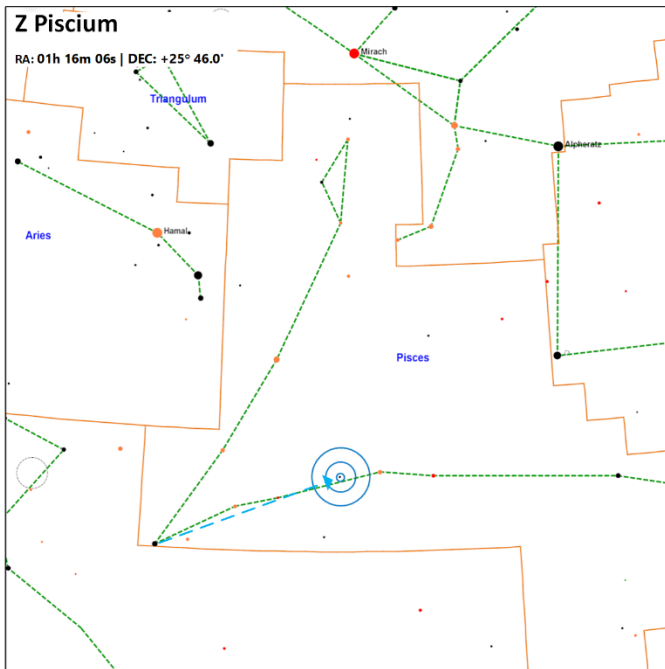


Renou 18 (AS || Size=18' | Ref Star: SAO-074581; HD 7364) Looks like the letter "S" from Superman through large telescopes.

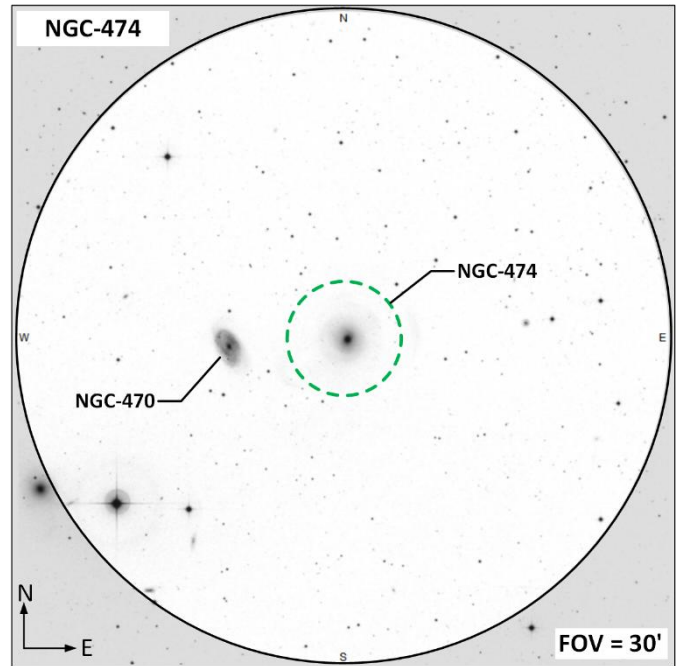
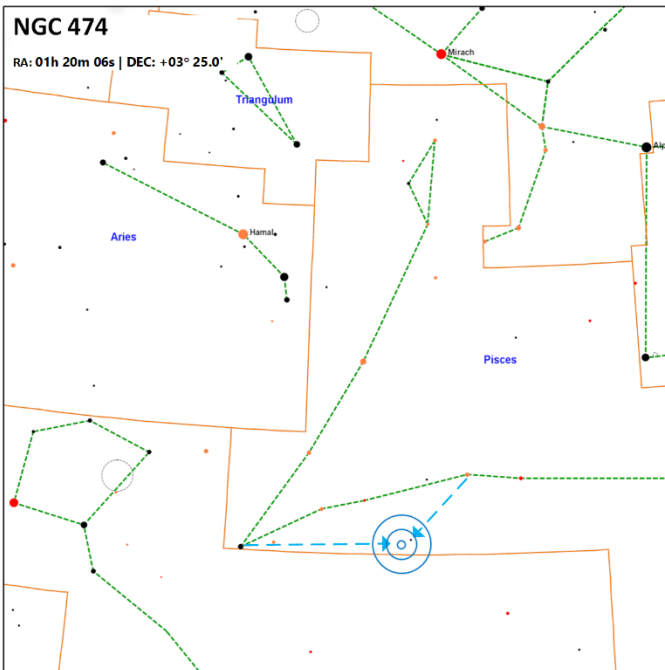


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Z Piscium (CS || Mag=6.7 | Magnitude Range=6.5 to 7.9 | Period=144d | Spec=C7,3 | BV=+2.86 | Color=deep red) Located 1,254 light years away, this is a bright red giant with 255 times the Sun's luminosity. It is a pulsating semi-regular variable star with a visual magnitude that varies from 6.5 to 7.9 over a period of 144 days and appears on a number of carbon star lists.

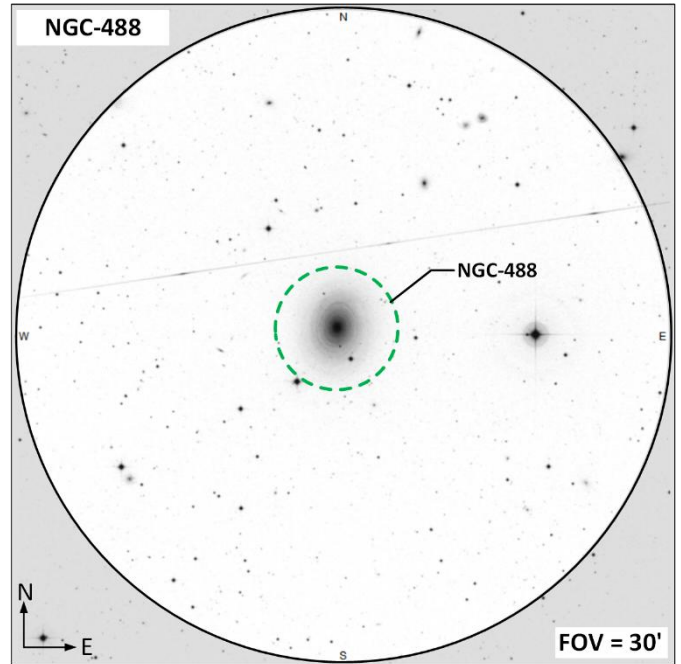
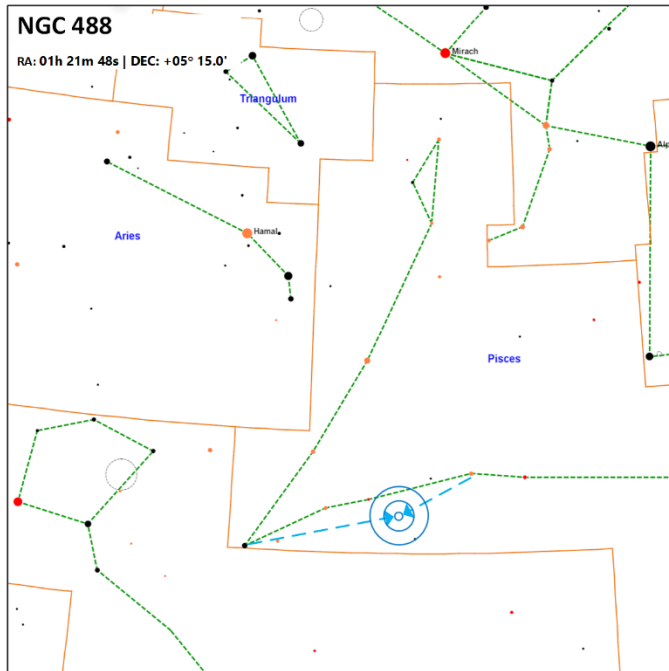


NGC-474 (G || Mag=11.5 | Size=7.1'x6.3' | SB=25.2 | MC=S0) A member of the NGC-488 group of galaxies, this is a large [lenticular galaxy](#) (a type of galaxy intermediate between an elliptical and spiral) located 96 million light years away. The galaxy NGC 470 is gravitationally interacting with this galaxy.

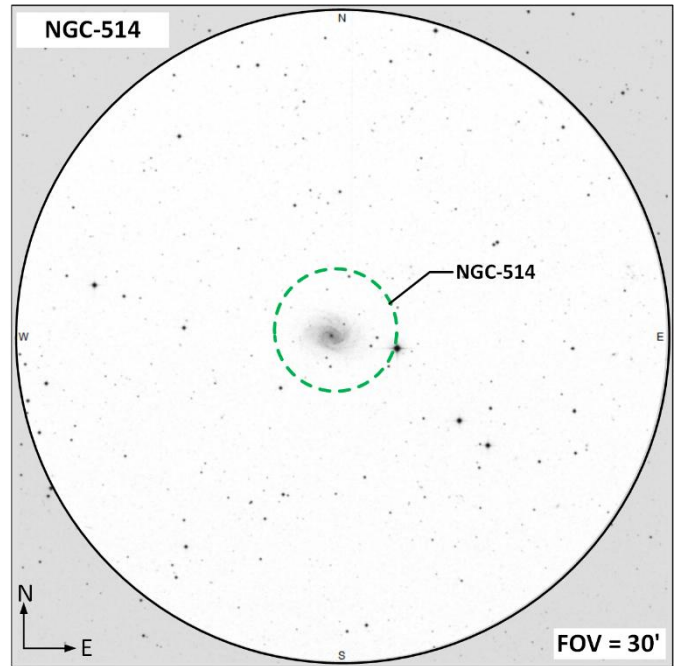
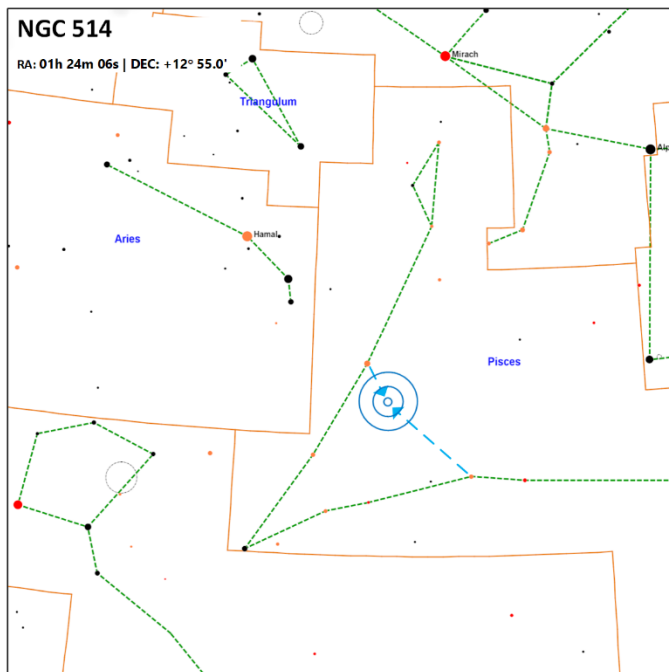


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NGC-488 (G || Mag=10.3 | Size=5.5'x3.9' | SB=22.4 | mBortle=4 | mApt=102mm | MC=SA(r)b |) A member of the NGC-488 group of galaxies, this is a face-on spiral galaxy located about 90 million light years away and is estimated to have a diameter of 185,800 light years.

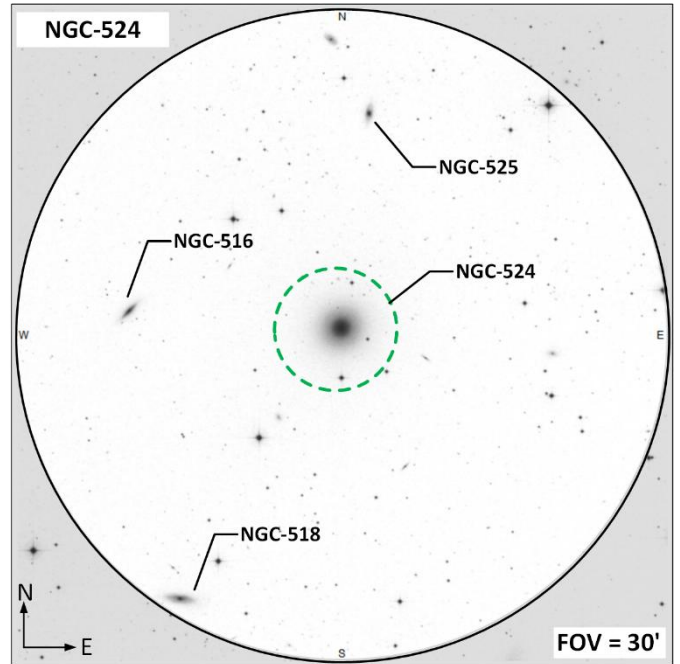
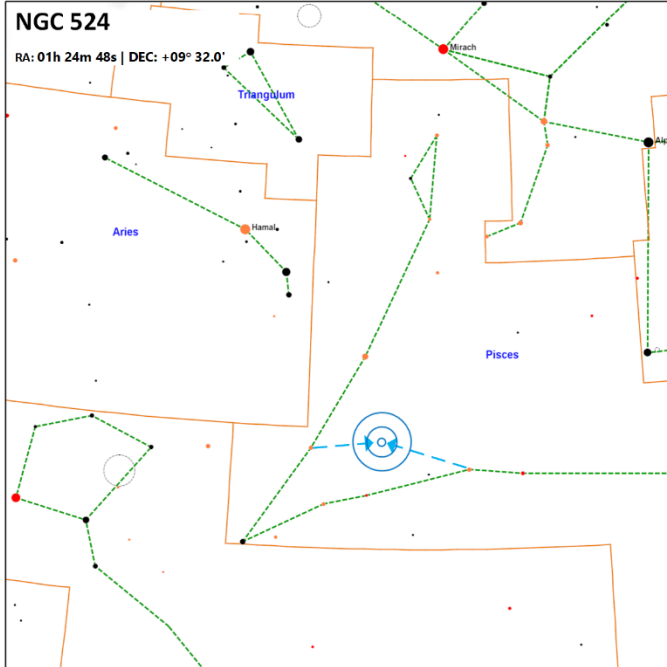


NGC-514 (G || Mag=11.7 | Size=3.5'x2.8' | SB=22.8 | mApt=300mm | MC=SAB(rs)c |) A low-luminosity intermediate spiral galaxy located 83 million light years away.

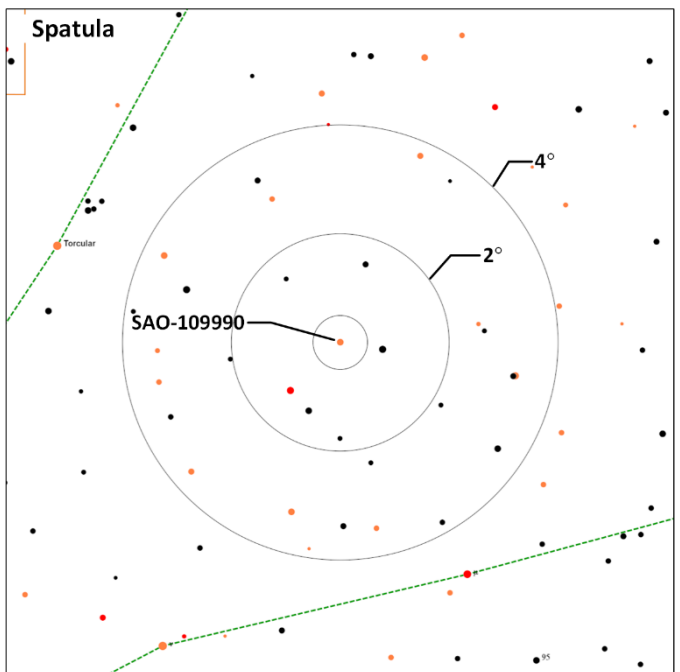
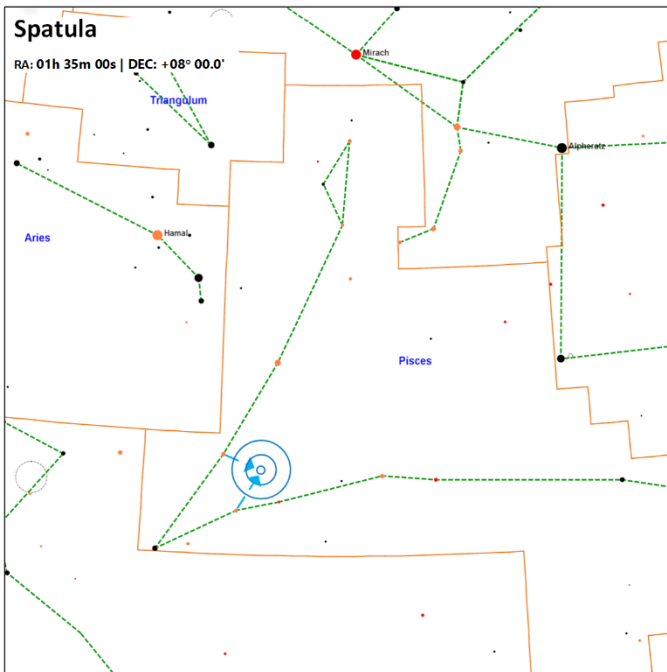


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NGC-524 (G || Mag=10.5 | Size=2.8' | SB=21.3 | mBortle=7 | mApt=60mm | MC=SA(rs)0+) A lenticular galaxy located 90 million light years away and the largest galaxy in the NGC 524 group of galaxies.

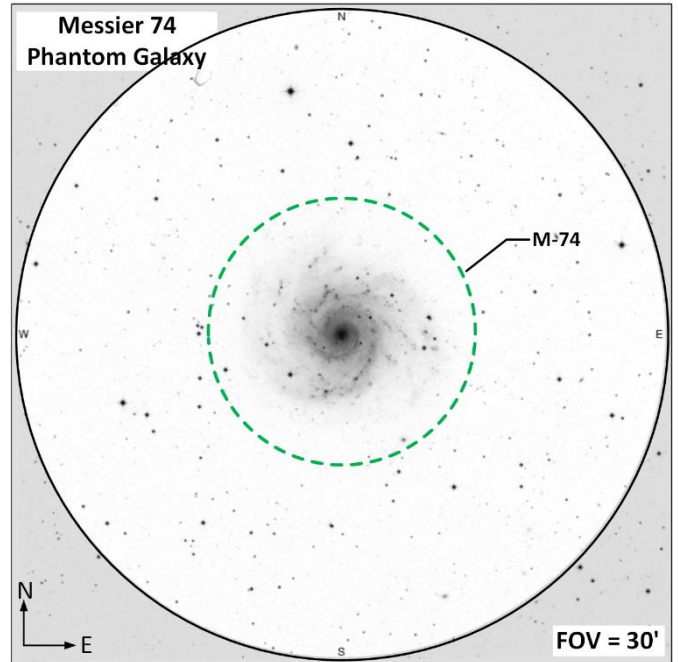
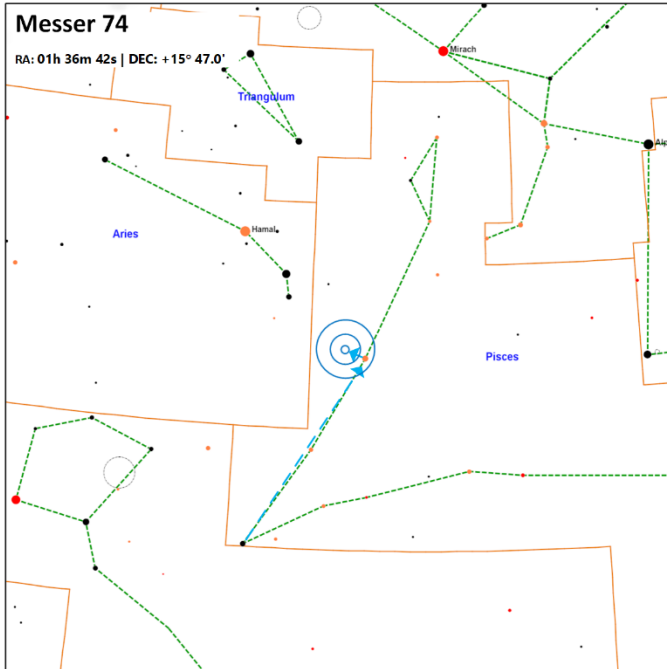


Spatula (AS || Stars = 9 | Size=90' | Ref Star: SAO-109990; HIP 7366) Four stars form the blade. Five stars curve to form the handle. Located between 110 and 96 Piscium. This asterism is not apparent in star charts.

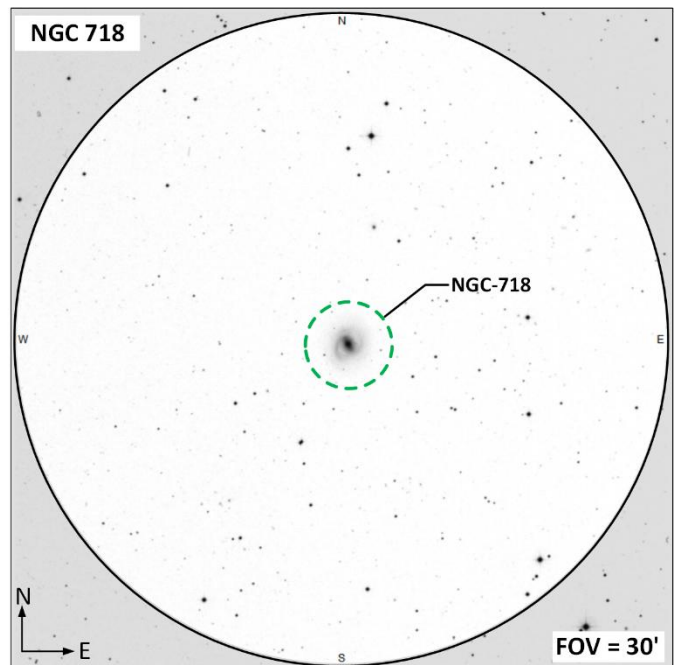
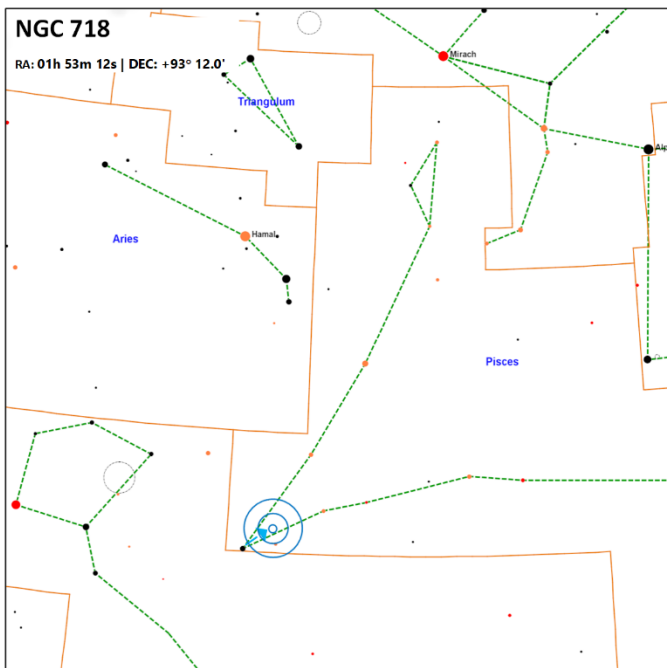


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Messier 74 (G || Mag=9.4 | Size=10.5'x9.5' | SB=23.0 | mBortle=4 | mApt=150mm | MC=SA(s)c |) Also known as the Phantom Galaxy, this is a large spiral galaxy located 32 million light years away. The galaxy contains two clearly defined spiral arms and is an excellent example of a [grand design spiral galaxy](#). Some consider this one of the most difficult Messier objects to observe due to its low surface brightness.

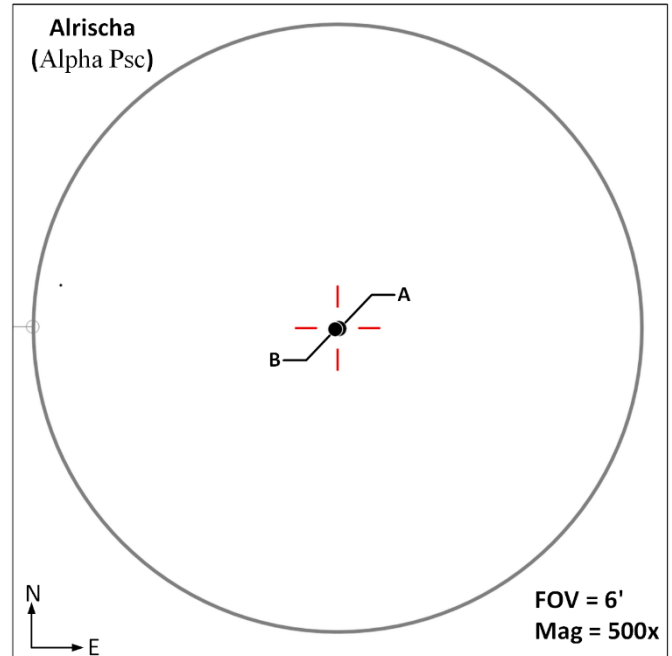
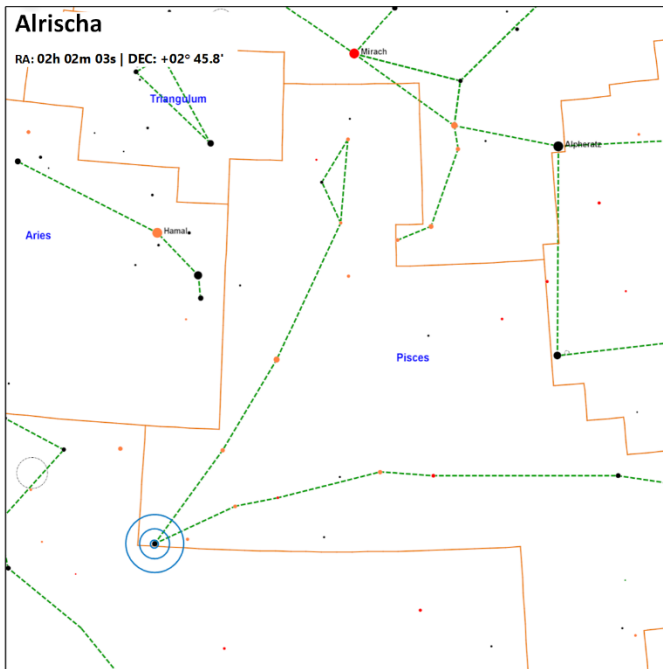


NGC-718 (G || Mag=11.7 | Size=2.4'x2' | SB=22.0 | mBortle=4 | mApt=150mm | MC=SAB(s)a |) An intermediate spiral galaxy estimated to be 70 million light years away. This galaxy has an active galactic nucleus that emits a significant amount of energy with characteristics indicating that this luminosity is not produced by stars.

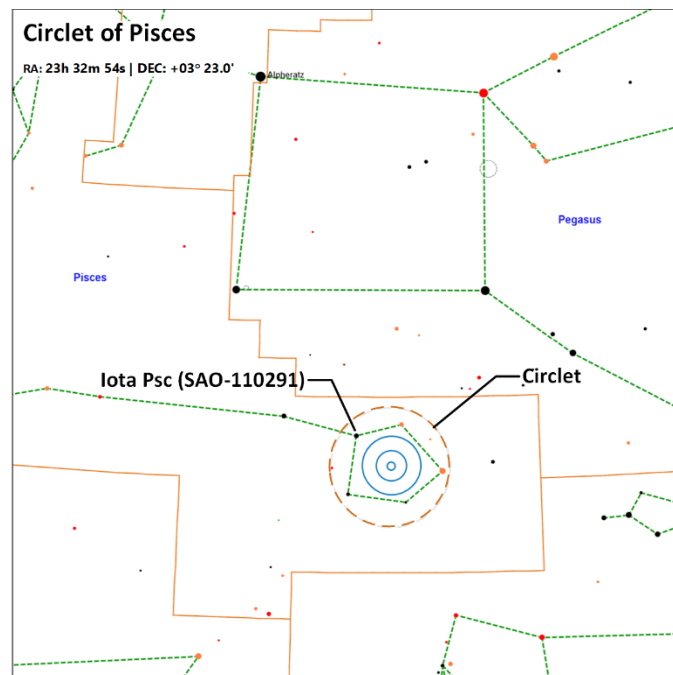


Constellation Guide

Alrischa (MS-3 || **AB** | Mag=4.1,5.2 | Sep=1.9" | PA=258° | mBortle=9 | mApt=80mm | Period=2,822y | Spec=A0p, A3m | Color=blue-white, white || **AC** | Mag=4.1,8.3 | Sep=405" | PA=63° | mBortle=9 | mApt=50mm | Spec=A0p, ? | Color=blue-white, ?) Located 157 light years away, it is reported to have pale green and bluish components and requires about 150× to resolve. This system appears on many favorites lists.

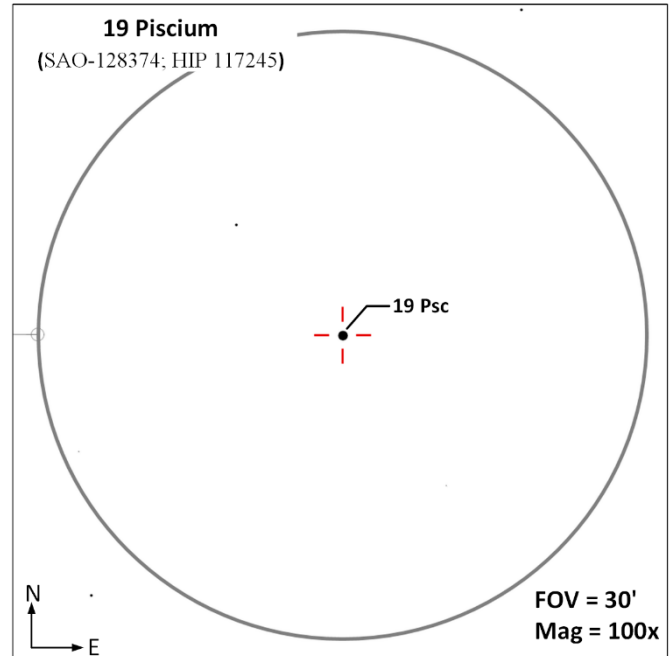
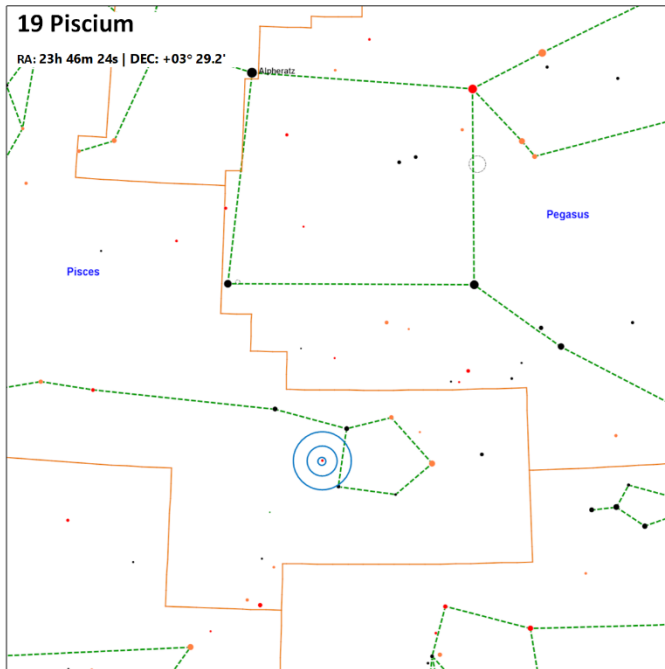


Circlet of Pisces (AS || Stars: 5 | Ref Star: SAO-128310; HIP 116771) Consists of Gamma, Kappa, Lambda, Iota and Theta Piscium.

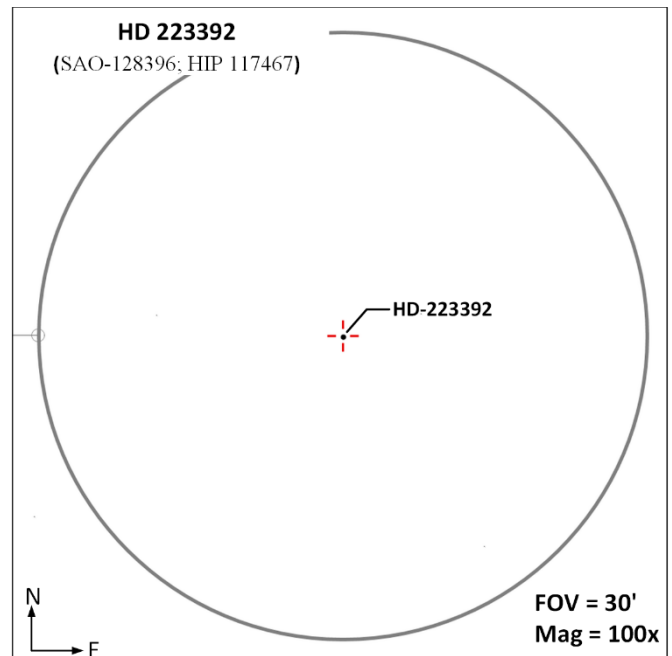
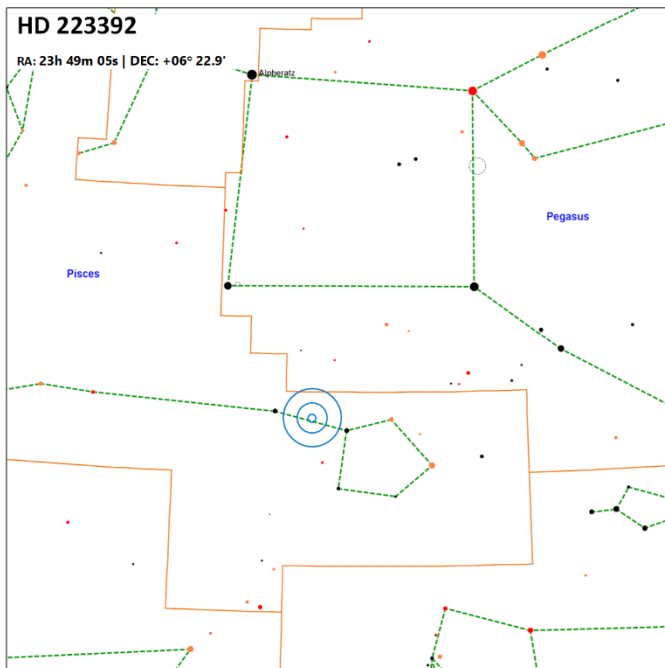


Constellation Guide

19 Piscium (CS || Magnitude Range= 4.8 to 5.2 | Period=224d | Spec=C7,2 | BV=+2.78 | Color=deep red ||) A variable red giant star, one of the reddest naked-eye stars in the sky. Located 900 light years away. Some consider this part of the Circlet of Pisces, although it is not identified as such in this guide.



HD 223392 (CS || Mag=8.3 | BV=+1.25 | Spec=C3,2 (R3) | Color=orange-red ||) Located 843 light years away, this is an orange-red giant star with an energy output of 27 times the Sun's luminosity. This star is listed on the Astronomical League Carbon Star observing program list.



Blank

Constellation Guide
Observation Log: Pisces (Psc)

Equipment Config A: _____ Config B: _____

Notes: _____

Date	Time	Config	Target	Notes

Date	Time	Config	Target	Notes

Constellation Guide
Observation Log: Pisces (Psc)

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

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