Asterisms

Small star patterns for telescopes and binoculars

Introduction

Asterisms are star patterns. The constellation Cassiopeia is probably the well-known asterism in the night sky. Cassiopeia has an obvious "W" shape. Not all asterisms are as large as Cassiopeia, there are also lots of small patterns that are only visible through binoculars ore telescopes. Unfortunately it's pretty hard to find information about these small asterisms on the internet, so that's why I started to make my own list. Hopefully this list is also useful to others.

I used a lot of resources making this list, like the internet, the Sky & Telescope, books, several atlases and (of course) my own observations.

The asterisms are ranged by constellation in alphabetical order. You will find a description of the object, the name (or names), and the positions (RA & DEC). Unfortunately I haven't found the exact coordinates for all asterisms, but instead of that I described as good as possible where the object is located. Some asterisms are catalogued in the STAR-Catalogue, where STAR stands for Small Telescope Asterism Roster.

The charts that I've used are all made with the program Starry Night Pro.

I haven't seen all of these asterisms by myself yet, so I can't guarantee that the information is 100% correct. If you see incorrect information, please let me know!

Making this list cost me a lot of time. That's why it's <u>not</u> allowed to take over (a part of) stuff from this list and publish it elsewhere without explicit consent. Do you want to use (a part of) the information than you can contact me via my website.

Have fun observing these nice objects!

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How to use the list:

Every asterism will be treated separately and will look as the table below:

1. The Golf Putter

AndromedaStar 14RA: 01h 52mDEC: 37d 30m95' x 25'Golf Putter

The Golf Putter looks a bit like Kemble's Cascade. There's a long line of stars visible with an open star cluster on the end of it. The row ends with a bow. The open cluster NGC 752 forms the golf ball. Use a binocular for this asterism, because it is comparative large.

Draw a line between the stars α in Triangulum and Almach (γ) in Andromeda. You will find NGC 752 (that forms the golf ball) within 1/3e distance from this line (count from Almach).





On top you'll find the data. From left to right: the constellation where the asterism is located, the official and any other names, the right ascension and declination and the size of the object.

Because most asterisms are more familiar with their nicknames, I use these where possible in the description. The number in front of the name stands for the asterism number in which I numbered them.

Finally follows the description. As I mentioned before, I haven't seen all asterisms yet. It happens here and there that I haven't any further information. This will be indicated with "no further information (yet)". Of course I'll do my very best to observe all these asterisms as soon as possible, and I will update this list frequently with new information.

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1. The Golf Putter

RA: 01h 52m

Andromeda

Star 14 Golf Putter DEC: 37d 30m

95' x 25'

The Golf Putter looks a bit like Kemble's Cascade. There's a long line of stars visible with an open star cluster on the end of it. The row ends with a bow. The open cluster NGC 752 forms the golf ball. Use a binocular for this asterism, because it is comparative large. Draw a line between the stars α in Triangulum and Almach (γ) in Andromeda. You will find NGC 752 (that forms the golf ball) within 1/3e distance from this line (count from Almach).



2. The Home Plate



Circle is 2 degrees

3. TPK 1

Andromeda TPK 1 RA: 23h 39.3m DEC: 47d 31m 23' x 11' 1.1° NNW of Lambda (λ) Andromedae you'll find the asterism TPK. It's called after the discoverers Teutsch, Patchick en Kronberger. The object has the rough shape of a trapezium, lying in an area of 1/4° large. At higher magnifications there are many faint stars visible, whereby this asterism looks like an open cluster.



4. Smiley Face



5. The Flying Minnow

Auriga

STAR 4 Flying Minnow

RA: 05h 19m

The Flying Minow looks like a torch or a mini Delphinus. The asterism contains 5 bright stars that vary in magnitude from 4.5 to 6.5 and it contains the stars 16, 18 and 19 Aurigae. In and around the asterism there are a lot of faint stars visible. You can find the Flying Minow between NGC 1893 and (SE of) The Flaming Star Nebula.



Circle is 2 degrees



6. Napoleon's Hat

Boötes

Picot 1 RA: 14h 14m Napoleon's Hat

DEC: 18d 33m

20'x07'

Picot 1, also named Napoleon's Hat, is located directly underneath the star Arctures in constellation Boötes. Its shape reminds obviously of the hat of Napoleon or like a divan, depending on which telescope you use. The 7 stars that shape this figure vary in brightness from magnitude 9 to 11. Use a telescope underneath a dark sky to observe this asterism.





7. Kemble's Cascade

Camelopardalis

STAR 3 Kemble's Cascade RA: 04h 07m

DEC: 62d 20m

2.5°

This asterism Kemble's Cascade (also Kemble 1 or STAR 3) is a straight line of about 20 stars that vary in magnitude from 7 to 9. In the middle is a bright star of magnitude 5 visible. The chain of stars lead to the open star cluster NGC 1502. Kemble's Cascade is best viewed through binoculars because of its size. Take the first and last star from constellation Cassiopeia, the two ends of the 'W'. Draw a line between these stars and extend it 1 time in the direction of Camelopardalis. You'll find Kemble 1 here.



Circle is about 3 degrees

Canís Major



8. Nagler 1

Canis Major

Nagler 1

RA: 06h 22m

DEC: -26d 28m

16'x48'

Nagler 1 is an asterism in the shape of a chevron. It's located just above the galaxy NGC 2217 in Canis Major, a bit right of the back paw. The asterism is pretty big, and the stars in the chevron have a magnitude of 7 to 10, which makes this a beautiful binocular object. Through telescopes you will see the color of the stars (yellow-orange and red-orange) a lot better though.



Cassíopeía



9. Kemble's Kite

Cassiopeia Star 15 RA: 03h 28m DEC: 72d 00m 90'x30' Kemble's Kite

Another asterism Kemble named: Kemble's Kite. The 2° asterism looks like a diamond shaped kite with a tail. There are 7 stars that shape this object. You can find Kemble's Kite near the border with Camelopardalis, north of the constellation Cassiopeia.



Circle is 1 degree

10. Lucky 7

Cassiopeia

Star 29 RA: 23h 03m *Lucky 7*

Lucky 7 is a large and bright asterism in the shape of the number '7'. It is located at the border of Cassiopeia and Perseus. In total the figure counts 13 stars of magnitude 5 to 7, including the stars 1 and 2 Cas.



Circle is 2 degrees

11. The Airplane

Cassiopeia

Star 12 *Airplane* RA: 23h 20m

20m

DEC: 62d 20m

60'

8 Stars of magnitude 7 and 8 shapes The Airplane within 40 arc minutes NW of M52. The figure looks like an airplane. The front of the plane is shaped by 5 stars, its tail by 9 stars.



12. The Queen's Kite



Circle is 3 degrees



13. STAR 11

 Cepheus
 Star 11
 RA: 21h 48m
 DEC: 61d 00m
 3°x1.5°

 STAR 11 is a piece of the Milkyway that is located
 Image: Cepheus and the milkyway that is located
 Image: Cepheus and the milkyway that is located

between the quadrangle that shapes Cepheus. The asterism contains the stars 19, 20, 25, ξ en v Cephei. Because STAR 11 is pretty large, it is best observed with binoculars. There is no obvious shape visible.



Circle is 4 degrees



14. The Cosmic Question Mark

Cetus

The Cosmic RA: 02h 36m Question Mark

DEC: 06d 42m

2.1°x0.7°

This is a pretty big asterism in the shape of a mirrored question mark. It is best visible trough finder scopes, binoculars or small telescopes with a low magnification. There are 5 stars that form Cetus head. Take the lowest star and the star most right and draw a line between these stars. You can find the Question Mark left from this line at approximately 2/3e from the lowest star.





15. Stargate

RA: 12h 36m

Corvus

STAR 20 Stargate DEC: -12d 02m

15'

A small asterism in the shape of a triangle within a triangle. The 6 stars that form this asterism vary in magnitude 6.5 to 11.5. All stars are white or blue/white. The star on the Westside of the outer triangle is a double star. You could best use a telescope to observe this asterism. Draw a line between the stars Porima in Virgo and Algorab in Corvus. At 1/4e distance of this line, you find the Stargate, only 1° from M104.





16. Horseshoe

 Cygnus
 STAR 28 Horseshoe
 RA: 21h 08m
 DEC: 47d 14m
 25'

 The Horseshoe in Cygnus is a U-shape asterism and about 20' long. There are a few double stars in the Horseshoe, under which two of magnitude 7 and 8. Observe this asterism with small telescopes.
 DEC: 47d 14m
 25'

Circle is 1 degree

17. Little Orion

Cygnus

Leiter 9 Little Orion RA: 20h 56m

This asterism is made of 7 stars and looks like the constellation Orion. Because of its size, Little Orion is at its prettiest trough binoculars or small telescopes. Put the four stars that form the Swans body horizontal with Deneb on the left. You find this asterism a little below Deneb, in the Mexican Golf of the North America Nebula (NGC 7000).







18. Meerschaum Pipe

CygnusMeerschaum
PipeRA: 19h 51mDEC: 30d 07m22'This asterism in Cygnus has the shape of a pipe.
Because it contains a few fainter stars, you can
best observe the Meerschaum Pipe with larger
telescopes. At 2.6° northwest of the star 15
Vulpeculae, you will find the cluster NGC 6834.
You can find The Meerschaum Pipe 3/4°
northwest of this cluster.DEC: 30d 07m22'



19. Red Necked Emu

Cygnus STAR 26 RA: 20h 14m DEC: 36d 30m 45' Red Necked Emu

You can find the Red Necked Emu just below the open cluster Dolidze 3. The stars in this asterism have a magnitude of 9. All stars are blue/white, except 1 star in the neck: this one is red. Observe the Red Necked Emu with telescopes and a low magnification. Starting at the orange star Gamma Cygni that forms the hart of constellation Cygnus. Move 2.5° towards Albireo to the star 34 Cygnus. Next you go 1.5° in the same direction to 29 Cygnus. This star marks the tail of the Red Necked Emu.



Circle is 1 degree

20. The Fairy Ring

Cygnus

The Fairy Ring RA: 20h 04m *Chaple's Arc*

4m DEC: 38d 14m

20'x20'

The Fairy Ring, also known as Chaple's Arc, is an asterism that contains a lot of double star. Four bright pairs form the northwest bow of the ring. A few fainter doubles complete the ring. In the middle of this jewel sparkle a few stars. I found it hard to find this asterism, because there are a lot of stars visible in this area. I concentrated at finding a few double stars that are closely together. That's how I found The Fairy Ring. Actually: to me the name Chaple's Arc sounds more appropriate because of its shape. It looks more like an arc than a complete ring. You can find The Fairy Ring a few degrees south of the star Sadr: 1.6° west of the Cresent Nebula.





21. Vultus Irrisorie





22. Theta Delphinus Group



Circle is 2 degrees







24. Poskus 1

DelphinusPoskus 1RA: 20h 46mDEC: 16d 20m6.5'Poskus 1 is a group magnitude 11.5 to 12.8 stars
with the shape of a flyswatter. You can find this
asterism right above the star Gamma (γ)
Delphini, which is located just outside the field of
view.DEC: 16d 20m6.5'



25. Mini-Cassiopeia

RA: 18h 35m

Draco

STAR 25 Mini-Cassiopeia DEC: 72d 25m

20'x10'

It's obvious why asterism Kemble 2 carries the name 'Mini-Cassiopeia'. Its shape looks just like the 'W' of his bigger brother. The stars that shape this figure are all of magnitude 7 and 8. Kemble 2 is best seen through large binoculars or small telescopes with a low magnification. You can find Mini-Cassiopeia between u en χ Draconis.




Fornax STAR 2 RA: 03h 27m DEC: -35d 00m 30' x 30' Chi 1, 2, 3 The asterism Chi 1, 2, 3 contains the stars Chi 1, 2 and 3 Fornacis. The stars are all of magnitude 6 and form an arrow. You can find the asterism 1 degree west of the galaxy NGC 1365.



Circle is 1 degree



27. Backwards 5

Hercules

STAR 23 Backwards 5 RA: 16h 37m

DEC: 30d 45m

20'

The asterism Backwards 5 looks like a, as you maybe have guessed, a backwards 5 of letter S. The stars that shape this asterism have a magnitude of about 11. The first and last stars of the 5 are brighter, of magnitude 7 and 9 and are therefore better to see. You find this shape 1° SW of ζ Herculis. Observe it with a small scope.



Circle is 1 degree

28. Markov 1

Hercules

Markov 1

RA: 17h 57m

Markov 1 looks like the teapot shape of the constellation Sagittarius. There are 9 stars from magnitude 9 and 10 that forms the asterism. In and around the teapot there are a few fainter stars visible. Markov 1 is easily visible with small telescopes. You find this asterism NNW of the yellow star Xi (ξ) Herculis. With low magnifications you will get this star in the same view of the asterism.



Circle is 1 degree

29. Ruby Ring

Hercules S R

STAR 24 Ruby Ring RA: 18h 03m

DEC: 26d 20m

25'

The Ruby Ring is an asterism in the shape of a ring. It's formed by fairly faint stars. The ruby is shaped by an orange star of magnitude 7.



Circle is 1 degree





31. Zig Zag

Hercules

STAR 7 Zig Zag RA: 16h 18m

DEC: 13d 00m

100'x15'

Zig Zag is an asterism which is made up of about 12 stars with magnitude 8 to 9. The asterism goes up and down, which explains its name. You find Zig Zag 2° west of ω (Omega) Herculis.



Circle is 2 degrees

Hydra



32. Night Owl



33. Triangle





34. The Sailboat Cluster

Leo Minor

STAR 6 Sailboat Cluster

RA: 10h 14m DEC: 31d 30m

45'

The Sailboat Cluster looks a lot like a sailboat. The 13 or 14 stars that form this asterism are blue/white and have different magnitudes. It also contains the star 22 Leonis. In the mast there are 2 red coloured stars visible. In binoculars the Sailboat stands upside down.



Circle is 1 degree



35. Pakan's 3

Monocerous

STAR 18 Pakan's 3 RA: 06h 52m

30'

This asterism has a shape of a "3". There are 15 to 20 stars of magnitude 9 to 10 visible. Because of its size, you can observe Pakan's 3 best with binoculars or telescopes with a low magnification. Draw a line between the stars γ and θ in Canes Major. Extend the nose of Canis Major 1/4e of the line you just draw. Here you find Pakan's 3.



DEC: -10d 10m



36. Unicorn's Horn

Monocerous

STAR 5 / 17 Arrowhead Unicorn's Horn

RA: 06h 40m

Six blue/white stars form the Unicorn's Horn. The asterism has an obvious shape of a triangle, the horn of the unicorn. The stars are relatively faint, but because there are no background stars the asterism is good to recognize. All of the stars have the same colour and magnitude. The asterism is also known as the 'Arrowhead'.





37. Lambda-Lambda

Orion

Lambda-Lambda

RA: 05h 36m DEC: 10d 00m

50'x20'

This figure has the shape of the Greek letter Lambda (λ). The star Lambda Orionis is part of this asterism, which explains its suitable name.



Circle is 1 degree



38. Delphinus Minor



39. Stephan's Test

Pegasus	Stephan's Test	RA: 22h 37m	DEC: 34d 08m	3'
Stephan's Test is at a distance of 1 Quintet. The faint This stargroup wa trancparancy.	a jagged asterisn 7 arc minutes NE est star is of mag as used by Stepha	n of faint stars from Stephan's hitude 14.7. In to test the	7331	

Circle is 1 degree

40. The Mini-Cross

The Mini-Cross RA: 00h 10.5m DEC: 15d 18m 16.5' Pegasus An asterism in the shape of the Northern Cross, or constellation Cygnus. It contains 5 stars that vary in magnitude from 8 to 10.5. The Mini-Cross is best observed through not all to large telescopes with a low magnification. You can find the Mini-Cross near the star Algenib, on the line

with Markab in constellation Pegasus.



Circle is 1 degree



41. HD 4798 Group

Pisces	HD 4798 Group	RA: 00h 50m	DEC: 28d 22m	5.6'

Namend after the brightest star. This asterism looks like a flying wing. It's located 40' north of 65 Piscium. Through medium sized telescopes there are 7 stars visible in the shape of a triangle with one point facing south. The stars in this asterism are from magnitude 7.2 to 12.8.



Circle is 1 degree



Pisces

through large telescopes.

Renou 18 RA: 01h 14.5m

Renou 18 lies 37' West of Tau (τ) Piscium. The asterism looks like the letter 'S' from Superman

5m DEC: 30d 00m

18'



Circle is 1 degree

54 © Demelza Ramakers



43. Arrowchain



44. Leiter 4



Circle is 1 degree

56 © Demelza Ramakers



45. Button Hook



46. Essertoo String



Circle is 1 degree



47. Rinnan's Run

Sextans	Rinnan's Run	RA: 10h 46m	DEC: 03d 26m	3°
From the star 35 Sextantis goes a row of stars 3 degrees ssw. This row has a small curve on the upper side.				
Rinnan's Run is named after Dan Rinnan.				•

Circle is 3 degrees



48. Davis' Dog



49. Spermatozoon





Circle is 1 degree



50. Triangulum Minor

Triangulum	

Triangulum RA: 02h 20m Minor DEC: 30d 00m

90'x60'

This asterism is a small triangle that is shaped by the stars 6, 10 and 12 Triangulii.



Circle is 1 degree



51. Broken Engagement Ring

Ursa Major

STAR 19 Broken Engagement Ring RA: 10h 51m

20'

A broken ring. That's what this asterism looks like. This missing part of the ring lies a bit away from the ring. There are approximately 10 stars visible that belongs to this asterism. You can find the Broken Engagement Ring just west of Beta Ursa Majoris, the star Merak. Observe the asterism with small telescopes.



DEC: 56d 09m





Ursa Major

Ferrero 6 RA: 13h 10m *Eiffel Tower*

An asterism in the shape of the Eiffel tower. There are a lot of stars visible within and around this object. This makes it a challenge to recognize the tower. Concentrate on the brightest stars. Go up and left at the star Alioth until you find a row of tree stars. The tower lies above this row, between the two stars at the right.



Circle is 1 degree

53. Gas Pump Handle

Ursa Major

Gas Pump Handle

RA: 13h 38m

The Gas Pump Handle is about ³/₄° tall. Observe this object with a (small) telescope. The asterism is easy to find and recognize. You will find it about halfway between the stars Mizar/Alcor and Alkaid.



1°

DEC: 52d 56m

Circle is 1 degree

54. The Spade

Ursa Major

The Spade

RA: 09h 43m

The Spade is made up of 11 stars. In the handle there are 3 stars visible, the upper side is shaped by 8 stars. You can observe this asterism best with small telescopes or large binoculars. You can find the asterism 1.6° SW of Phi (Φ) Ursae Majoris.



Circle is 1 degree



55. Engagement Ring

Ursa Minor

STAR 1 Engagement Ring

RA: 02h 32m

DEC: 89d 00m

45'

The Engagement Ring (or Diamond Ring) is a pretty asterism in Ursa Minor. Approximately 10 bright stars and a few fainter ones (of magnitude 7 and 8), form an obvious circle, the ring, with Polaris as a diamond. This really is a beautiful asterism to observe with small telescopes with a low magnification! Because Polaris is part of this asterism, The Engagement isn't hard to find.



56. Mini-Coathanger

RA: 16h 29m



Circle is 1 degree

Ursa Minor

STAR 22 Mini-Coathanger

The Mini-Coathanger in Ursa Major looks like the coathanger in Vulpecula. The straight line of 8 blue/white stars is easy to find and recognize, the 3 bleu/white stars that form the hook are harder to find, because these stars are fainter than the rest of this asterism.

Draw a line between the stars ε and η in Ursa Major (the first star in the handle and the star up left of the pan itself). Halfway this diagonal line you will find the Mini-Coathanger (just above the galaxy NGC 6217).

Ursa Minor Th

The Shark

RA: 16h 44m

DEC: 77d 48m

The Shark is easily to recognize as a shark. The asterism is about 1,5 degrees large. The asterism counts 12 stars and you can find it within only 2 degrees distance of the star 21 Ursa Minor. Draw a line between the stars 21 (η) and 22 (ϵ) in Ursa Minor. In about 1/3e of this line, counting from star 21, you'll find The Shark, near the galaxy NGC 6217.



1.5°

Circle is 2 degrees



58. Jaws

Virgo

STAR 21 Jaws RA: 12h 38m

15'

The asterism Jaws represents a shark: tail up, jaws down. Unfortunately you need a lot of imagination to see a shark in this asterism. The stars hat form Jaws vary in magnitude from 7.6 to 11.5. Observe this object with a low magnification. Jaws lies next to the galaxy M104 in Virgo. It is possible to see both objects in one image.



DEC: -11d 30m

Circle is 1 degree


59. The Coathanger

Vulpecula

Collinder 399 RA: 19h 25m The Coathanger

DEC: 20d 11m

90'x60'

The Coathanger is a beautiful object for binoculars. Its shape is obvious a coathanger. In the hook is an obvious orange star visible. The constellation Vulpecula forms a triangle. Go a little bit down from the right star and you should be able to find this asterism. This really is an object for binoculars. Because of its size it is too big for most telescopes.



Circle is ca 2 degrees