Asterism Atlas

Seasonal observing guide

Thirty named star-patterns for field use at roughly 50°N. Positions are J2000 from the site’s generated BSC5 data; charts reuse the same computed member-star geometry as the live atlas, with best-month, span, and source-type cues carried over for planning.

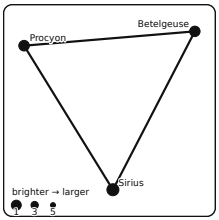
A5 layout. Print at actual size; use the web atlas for full citations and member-star tables.

Field notes

Use this as a compact route sheet, not a planetarium. RA/Dec are central J2000 coordinates for each pattern. “Bright” is the brightest member V magnitude, and the instrument is the lowest practical suggestion from the atlas. Black-on-white is deliberate: under a red light it keeps contrast without relying on colour.

The seasonal grouping follows evening visibility from about 50°N. The Little Dipper is circumpolar, so it appears in a short year-round section after the four seasonal lists.

Winter

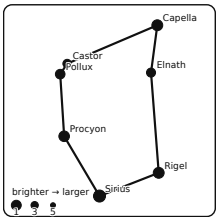


Winter Triangle

Orion / Canis Major / Canis Minor

RA	DEC	BRIGHT
06h 46m 31.7s	−01° 21′ 41″	V -1.46
INSTRUMENT	**BEST**	**SPAN**
naked-eye	December–March evenings	27.1°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

Betelgeuse, Sirius, and Procyon make a compact winter landmark.

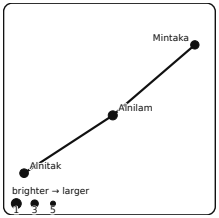


Winter Hexagon

Auriga / Taurus / Orion / Canis Minor / Gemini

RA	DEC	BRIGHT
06h 31m 47.5s	+16° 24′ 14″	V -1.46
INSTRUMENT	**BEST**	**SPAN**
naked-eye	December–March evenings	65.8°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

A tour of the brightest winter sky: Capella, Aldebaran, Rigel, Sirius, Procyon, Pollux, and Castor.

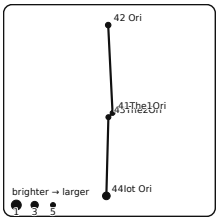


Orion's Belt

Orion

RA	DEC	BRIGHT
05h 36m 19.6s	−01° 08′ 53″	V 1.70
INSTRUMENT	**BEST**	**SPAN**
naked-eye	December–March evenings	2.7°
SOURCE	**PATTERN**	**USE**
skylore / traditional name	J2000 plot	field cue

Mintaka, Alnilam, and Alnitak form the straight belt that makes Orion unmistakable.

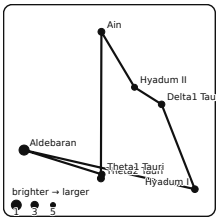


Orion's Sword

Orion

RA	DEC	BRIGHT
05h 35m 22.2s	−05° 23′ 19″	V 2.77
INSTRUMENT	**BEST**	**SPAN**
small scope	December–March evenings	1.1°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

The short hanging sword below the belt contains the Orion Nebula around Theta Orionis.

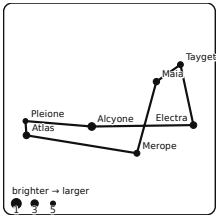


Hyades V

Taurus

RA	DEC	BRIGHT
04h 27m 08.5s	+16° 56′ 45″	V 0.85
INSTRUMENT	**BEST**	**SPAN**
7x50	December–March evenings	4.1°
SOURCE	**PATTERN**	**USE**
catalogue / cluster listing	J2000 plot	field cue

The nearest prominent open-cluster pattern forms a broad V around Aldebaran, which is a foreground star projected onto the group.

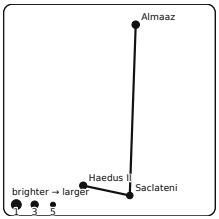


Pleiades Seven Sisters

Taurus

RA	DEC	BRIGHT
03h 46m 52.0s	+24° 10′ 13″	V 2.87
INSTRUMENT	**BEST**	**SPAN**
7x50	December–March evenings	1.0°
SOURCE	**PATTERN**	**USE**
catalogue / cluster listing	J2000 plot	field cue

The tiny blue dipper of the Pleiades is the classic binocular showpiece.

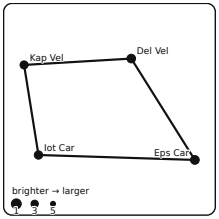


Kids of Auriga

Auriga

RA	DEC	BRIGHT
05h 03m 39.2s	+42° 02′ 40″	V 2.99
INSTRUMENT	**BEST**	**SPAN**
naked-eye	December–March evenings	2.7°
SOURCE	**PATTERN**	**USE**
skylore / traditional name	J2000 plot	field cue

The three small stars near Capella are the goat-kids carried by the Charioteer.



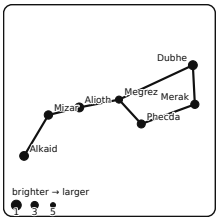
False Cross

Vela / Carina

RA	DEC	BRIGHT
08h 56m 37.1s	−57° 07′ 34″	V 1.86
INSTRUMENT	**BEST**	**SPAN**
naked-eye	December–March evenings	9.2°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

A southern four-star cross often mistaken for Crux from lower latitudes.

Spring

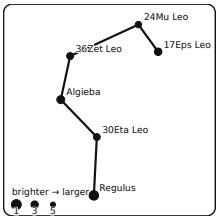


Big Dipper

Ursa Major

RA	DEC	BRIGHT
12h 20m 02.0s	+55° 34′ 47″	V 1.77
INSTRUMENT	**BEST**	**SPAN**
naked-eye	March–June evenings	25.7°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

The famous ladle is the brightest northern guide-pattern: use Merak-to-Dubhe to hop to Polaris, then follow the bent handle to Arcturus.

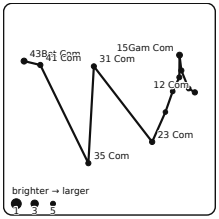


Sickle of Leo

Leo

RA	DEC	BRIGHT
10h 05m 10.0s	+20° 17′ 42″	V 1.35
INSTRUMENT	**BEST**	**SPAN**
naked-eye	March–June evenings	14.5°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

A backward question mark above Regulus sketches the lion's head and mane.

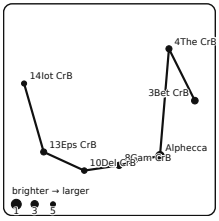


Coma Star Cluster

Coma Berenices

RA	DEC	BRIGHT
12h 38m 49.0s	+25° 58′ 31″	V 4.26
INSTRUMENT	**BEST**	**SPAN**
7x50	March–June evenings	11.2°
SOURCE	**PATTERN**	**USE**
catalogue / cluster listing	J2000 plot	field cue

Melotte 111 is a loose naked-eye haze under dark skies and a perfect binocular cluster.

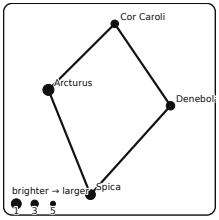


Crown of Corona Borealis

Corona Borealis

RA	DEC	BRIGHT
15h 43m 49.8s	+28° 02′ 20″	V 2.23
INSTRUMENT	**BEST**	**SPAN**
naked-eye	March–June evenings	7.4°
SOURCE	**PATTERN**	**USE**
skylore / traditional name	J2000 plot	field cue

A delicate semicircle between Boötes and Hercules, centred on bright Alphecca.



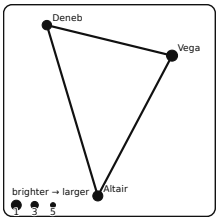
Great Diamond

Boötes / Canes Venatici / Leo / Virgo

RA	DEC	BRIGHT
13h 06m 35.3s	+15° 13′ 40″	V -0.04
INSTRUMENT	**BEST**	**SPAN**
naked-eye	March–June evenings	49.9°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

Arcturus, Cor Caroli, Denebola, and Spica make a huge spring diamond spanning several constellations.

Summer

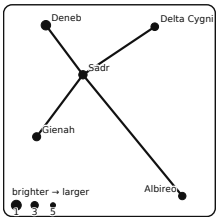


Summer Triangle

Lyra / Cygnus / Aquila

RA	DEC	BRIGHT
19h 43m 08.9s	+30° 58′ 39″	V 0.03
INSTRUMENT	**BEST**	**SPAN**
naked-eye	June–September evenings	38.0°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

Vega, Deneb, and Altair frame the Milky Way's summer river.

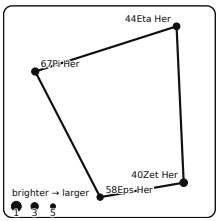


Northern Cross

Cygnus

RA	DEC	BRIGHT
20h 13m 08.3s	+38° 31′ 10″	V 1.25
INSTRUMENT	**BEST**	**SPAN**
naked-eye	June–September evenings	22.3°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

The long axis of Cygnus turns into a cross flying down the Milky Way.

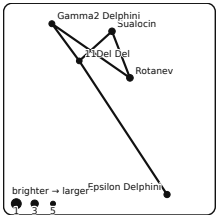


Keystone of Hercules

Hercules

RA	DEC	BRIGHT
16h 54m 52.6s	+34° 33′ 55″	V 2.81
INSTRUMENT	**BEST**	**SPAN**
naked-eye	June–September evenings	8.8°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

The lopsided four-star keystone anchors Hercules and points the way to M13 on the western edge.

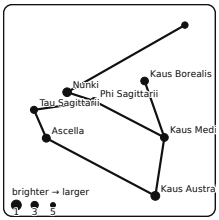


Job's Coffin

Delphinus

RA	DEC	BRIGHT
20h 40m 06.2s	+14° 36′ 07″	V 3.63
INSTRUMENT	**BEST**	**SPAN**
naked-eye	June–September evenings	5.8°
SOURCE	**PATTERN**	**USE**
skylore / traditional name	J2000 plot	field cue

Delphinus's compact diamond and tail has long been nicknamed Job's Coffin.

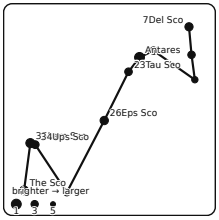


Teapot

Sagittarius

RA	DEC	BRIGHT
18h 39m 40.1s	−27° 41′ 29″	V 1.85
INSTRUMENT	**BEST**	**SPAN**
naked-eye	June–September evenings	14.1°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

Sagittarius becomes a squat teapot pouring steam into the Milky Way.

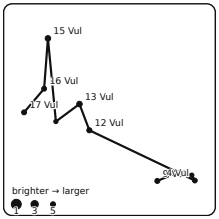


Fish Hook of Scorpius

Scorpius

RA	DEC	BRIGHT
16h 44m 12.3s	−32° 06′ 07″	V 0.96
INSTRUMENT	**BEST**	**SPAN**
naked-eye	June–September evenings	28.6°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

The northern claws and red Antares curve into the scorpion's long low hook.

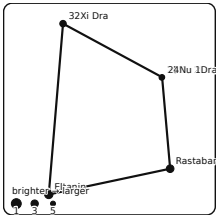


Coathanger

Vulpecula

RA	DEC	BRIGHT
19h 46m 56.3s	+22° 36′ 17″	V 4.58
INSTRUMENT	**BEST**	**SPAN**
7x50	June–September evenings	11.4°
SOURCE	**PATTERN**	**USE**
modern informal / binocular asterism	J2000 plot	field cue

Brocchi's Cluster is the binocular asterism that really looks like its name: a straight bar with a dangling hook.

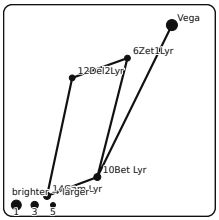


Lozenge of Draco

Draco

RA	DEC	BRIGHT
17h 41m 00.0s	+54° 12′ 15″	V 2.23
INSTRUMENT	**BEST**	**SPAN**
naked-eye	June–September evenings	5.7°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

Draco's head is a small tilted lozenge north of Hercules, with the Nu Draconis pair on one corner.

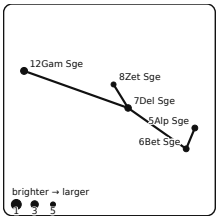


Lyra Parallelogram

Lyra

RA	DEC	BRIGHT
18h 49m 02.9s	+35° 52′ 05″	V 0.03
INSTRUMENT	**BEST**	**SPAN**
naked-eye	June–September evenings	7.6°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

Vega dominates Lyra, but the little parallelogram below it holds the Ring Nebula between Beta and Gamma.



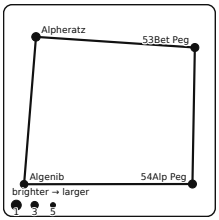
Sagitta Arrow

Sagitta

RA	DEC	BRIGHT
19h 47m 15.2s	+18° 31′ 54″	V 3.47
INSTRUMENT	**BEST**	**SPAN**
naked-eye	June–September evenings	4.7°
SOURCE	**PATTERN**	**USE**
skylore / traditional name	J2000 plot	field cue

Sagitta is one of the few constellations whose main figure is also an obvious asterism: a tiny arrow in the Milky Way.

Autumn

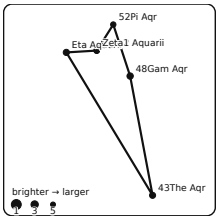


Great Square of Pegasus

Pegasus / Andromeda

RA	DEC	BRIGHT
23h 37m 32.4s	+21° 53′ 26″	V 2.06
INSTRUMENT	**BEST**	**SPAN**
naked-eye	September–December evenings	20.6°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

Four second-magnitude corner stars make autumn's large empty-looking square.

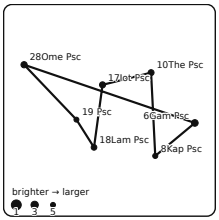


Water Jar

Aquarius

RA	DEC	BRIGHT
22h 26m 07.9s	−01° 19′ 30″	V 3.84
INSTRUMENT	**BEST**	**SPAN**
naked-eye	September–December evenings	9.4°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

A small Y-shaped jar near the celestial equator marks the water-bearer's stream.

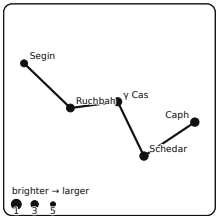


Circlet of Pisces

Pisces

RA	DEC	BRIGHT
23h 37m 06.5s	+04° 05′ 46″	V 3.69
INSTRUMENT	**BEST**	**SPAN**
naked-eye	September–December evenings	11.1°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

This modest oval of fourth- and fifth-magnitude stars is the western fish of Pisces.

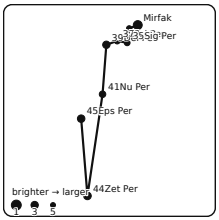


Cassiopeia W

Cassiopeia

RA	DEC	BRIGHT
01h 01m 18.8s	+60° 03′ 42″	V 2.23
INSTRUMENT	**BEST**	**SPAN**
naked-eye	September–December evenings	13.3°
SOURCE	**PATTERN**	**USE**
common observer pattern	J2000 plot	field cue

The zig-zag W is circumpolar from Alberta and flips to an M when it passes over the pole.

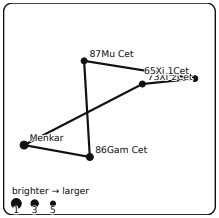


Alpha Persei Cluster

Perseus

RA	DEC	BRIGHT
03h 40m 06.4s	+44° 43′ 38″	V 1.79
INSTRUMENT	**BEST**	**SPAN**
7x50	September–December evenings	18.8°
SOURCE	**PATTERN**	**USE**
catalogue / cluster listing	J2000 plot	field cue

The bright association around Mirfak is a sprawling binocular field rather than a tight cluster.



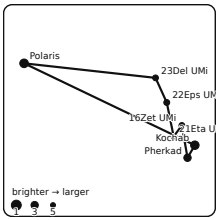
Head of Cetus

Cetus

RA	DEC	BRIGHT
02h 38m 20.3s	+06° 56′ 57″	V 2.53
INSTRUMENT	**BEST**	**SPAN**
naked-eye	September–December evenings	13.1°
SOURCE	**PATTERN**	**USE**
skylore / traditional name	J2000 plot	field cue

Menkar and nearby third- and fourth-magnitude stars form the whale's head below Pisces and Aries.

Year-round / circumpolar



Little Dipper

Ursa Minor

RA	DEC	BRIGHT
16h 23m 29.2s	+79° 37′ 57″	V 2.02
INSTRUMENT	**BEST**	**SPAN**
naked-eye	Year-round from 50°N; best when highest above the pole	18.9°
SOURCE	**PATTERN**	**USE**
skylore / traditional name	J2000 plot	field cue

A fainter dipper wrapped around the north celestial pole.

Observability by latitude

The web atlas uses each pattern’s centroid RA/Dec to compute transit altitude and hours above 20° for any northern latitude from 0–70°N. Use this appendix as a quick field reference before opening the interactive `/observe/` ranking.

Lat	Circumpolar Dec	Never rises Dec	Circ.	Well placed	Low	Very low	Not visible
0°N	none	none	0	26	3	1	0
30°N	≥ +60°	≤ -60°	2	25	2	1	0
50°N	≥ +40°	≤ -40°	6	20	1	2	1
70°N	≥ +20°	≤ -20°	16	4	3	4	3

Transit altitude is `90° − |latitude − declination|`. A target is marked circumpolar when it never sets, not visible when it never rises, very low when it rises but never reaches the 20° comfort line, well-placed when it transits at least 35° high and spends three or more hours above 20°, and low otherwise. Month rankings prefer targets transiting near a 21:00 local evening sky.

Reading the sky: Bortle classes & limiting magnitude

The web atlas now combines geometry with sky brightness. Bortle class is a field shorthand for light pollution: Bortle 1 is an exceptional dark site and Bortle 9 is an inner-city sky. The planner maps those classes to approximate naked-eye limiting magnitudes — about V 7.5 at Bortle 1, V 6.1 at Bortle 4, V 5.6 at Bortle 5, V 4.6 at Bortle 7, and V 3.6 at Bortle 9.

For each asterism, member-star V magnitudes are counted against that limit. If every defining star clears the limit the pattern is “fully visible”; if at least 70% clear it, the shape is “partial” but probably recognisable; below that it is “washed out” for naked-eye use. Binoculars can still rescue many washed-out patterns, but the ranking is answering the stricter question: what will the eye actually see in this sky?

Sources and verification

The printable guide is derived from `data/asterisms.generated.json` and the already-built SVG chart geometry in `public/asterisms/*.html`; it does not introduce new star positions. The companion verification note checks member counts, magnitude bounds, angular separation from each computed pattern centre, observing/imaging metadata, finder-map presence, and the shared latitude/month observability model on every detail page plus `/observe/`.