

StarView
Visible Object Listing for:

November 15, 2017	Local Time (Z- 5): 21:30	Lat: 41.5	Minimum Criteria: Elev: 5° / Mag: 6 Sep: 10 arcmin / Size: 2 arcsec
	Sidereal Time: 00:45	Lon: -81.5	

Name	Con	Type	Mag	Sep/Size	Elev
M31 - Andromeda Galaxy	And	Spiral Galaxy	3.44	190 arcmin	90°
Little Fish	Aur	Open Cluster	4.5	30x75 arcmin	37°
kappa Bootes - Asellus Tertius	Boo	Double Star	4.5, 6.6	13.4 arcsec	5°
Eta Cassiopeiae - Achrid	Cas	Double Star	3.4, 7.5	13 arcsec	74°
Delta Cephei	Cep	Star	4		63°
17 Cygni	Cyg	Double Star	5	26 arcsec	32°
31 Cygni - Omicron 1	Cyg	Double Star	3.8		43°
32 Cygni - Omicron 2	Cyg	Double Star	3.98		43°
Beta Cygni - Albireo	Cyg	Double Star	3.1, 5.1	35 arcsec	26°
M39	Cyg	Open Cluster	4.6	32 arcmin	56°
North American Nebula - Caldwell 20	Cyg	Nebula	4	100 arcmin	50°
Nu Draconis	Dra	Double Star	4.88	63.4 arcsec	24°
Omicron 2 Eridani - Keid, Beid, 40 Eri	Eri	Double Star	4.5, 9.9	83, 9 arcsec	21°
Alpha Geminorum - Castor	Gem	Double Star	1.9, 2.9	4, 71 arcsec	12°
M35 - Collinder 82	Gem	Open Cluster	5.3	28 arcmin	22°

19 Lyncis - Struve 1062	Lyn	Double Star	5.6	14.8 arcsec	28°
Epsilon Lyrae - The Double Double	Lyr	Double Star	4.6, 5, 6	200,150,64 arcsec	25°
Caldwell 50	Mon	Open Cluster	4.8	24 arcmin	6°
Christmas Tree - Cone Nebula	Mon	Nebula	3.9	20 arcmin	7°
Beta Orionis - Rigel	Ori	Double Star	0.1, 6.8	10 arcsec	11°
Delta Orinis - Mintaka	Ori	Double Star	2.2, 6.3	53 arcsec	13°
M42 - Orion Nebula	Ori	Nebula	4	65 arcmin	9°
Sigma Orionis	Ori	Double Star	4.0, 7.5,6.5	13 arcsec	10°
Theta Orionis - Trapezium	Ori	Double Star	4, 6, 8	19 arcsec	9°
Beta Perseus - Algol	Per	Double Star	2.1		63°
Double Cluster - Caldwell 14, Chi Persei	Per	Open Cluster	3.7, 3.8	60 arcmin	68°
M34	Per	Open Cluster	5.5	35 arcmin	68°
Aldebaran	Tau	Star	0.87		35°
M45 - Pleiades, Seven Sisters	Tau	Open Cluster	1.6	110 arcmin	49°
Theta Tauri - in Hyades	Tau	Double Star	3.4, 3.8	300 arcsec	36°
M33 - Triangulum Galaxy	Tri	Spiral Galaxy	5.7	50 arcmin	75°
Zeta Ursae Majoris - Mizar	Uma	Double Star	2.3, 4.0	14 arcsec	7°
Alpha Ursae Minoris - Polaris	Umi	Double Star	2.1, 9	18 arcsec	42°
Coathanger - Brocchi's cluster, Al Sufi's cluster	Vul	Asterism	3.6	60 arcmin	21°

End of Listing: 34 of 134 Stars matched criteria

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M31 - Andromeda Galaxy (And)

RA: 0h 43m	Mag(v): 3.44	Type: Spiral Galaxy (NGC: 224)
Dec: 41d 16m	Size: 190 arcmin	
Distance: 2.5M ly		Mag: Binoculars El: 90° / Az: 235°

The Andromeda galaxy (M31) is the closest galaxy to our Milky Way at 2.5Mly away. Andromeda is a spiral galaxy that contains some 1 trillion stars. It is about six times as wide as the full Moon. On clear nights away from the city, it can be seen without a telescope as small hazy spot in the sky.

Little Fish (Aur)

RA: 5h 18m	Mag(v): 4.5	Type: Open Cluster
Dec: 33d 30m	Size: 30x75 arcmin	
Distance: ly		El: 37° / Az: 75°

More than a dozen stars in this cluster.

kappa Bootes - Asellus Tertius (Boo)

RA: 14h 14m	Mag(v): 4.5, 6.6	Type: Double Star
Dec: 51° 47'	Sep: 13.4 arcsec	SP Class: A8IV
Distance: 155 ly		PA: 236° El: 5° / Az: 346°

This is a double star viewable by a small telescope. It's traditional name, Asellus Tertius is Latin for 'third donkey colt'.

Eta Cassiopeiae - Achrid (Cas)

RA: 0h 49m	Mag(v): 3.4, 7.5	Type: Double Star
Dec: 57° 49'	Sep: 13 arcsec	SP Class: G0V, K7V
Distance: 19.4 ly	Sep (AU): 76	PA: 317° Mag: 133x El: 74° / Az: 2°

Achrid is a binary star system in the constellation Cassiopeia that is about 20 light years from earth. The brighter star is similar to our Sun along with a dimmer magnitude 7 class K dwarf star. It was discovered in 1779 by Sir William Herschel who also discovered the planet Uranus in 1781. He was later appointed the private astronmer to the King of England in 1782.

Delta Cephei (Cep)

RA: 22h 29m	Mag(v): 4	Type: Star
Dec: 58° 25'		SP Class: F8, B7
Distance: 887 ly		El: 63° / Az: 320°

A binary star that is also a variable star. It varies from magnitude 3.48 to 4.37 over a 5.36 day period. The name of this star is used to describe the class

of variable stars, Cepheid Variables, that change brightness over a regular time period.

17 Cygni (Cyg)

RA: 19h 46m	Mag(v): 5	Type: Double Star
Dec: 33° 44'	Sep: 26 arcsec	SP Class: F7V, M0.4
Distance: 69 ly	Sep (AU): 16k	PA: 73° El: 32° / Az: 289°

A binary star system.

31 Cygni - Omicron 1 (Cyg)

RA: 20h 14m	Mag(v): 3.8	Type: Double Star
Dec: 46° 44'		SP Class: K4 + B4
Distance: 880 ly		El: 43° / Az: 300°

31 Cygni is an eclipsing binary star with small changes in brightness over a ten year period. One star is an orange supergiant with a second blue-white star. The brightness changes are due to one star eclipsing the other.

32 Cygni - Omicron 2 (Cyg)

RA: 20h 15m	Mag(v): 3.98	Type: Double Star
Dec: 47° 43'		SP Class: K4 + B6
Distance: 1100 ly		El: 43° / Az: 302°

Similar to 31 Cygni, this binary star system has a super large orange giant with a smaller hot white star in a 3.1 year orbital period. The larger star is almost 2 AU in diameter and takes 9 years for one rotation.

Beta Cygni - Albireo (Cyg)

RA: 19h 31m	Mag(v): 3.1, 5.1	Type: Double Star
Dec: 27° 58'	Sep: 35 arcsec	SP Class: K3II
Distance: 385 ly	Sep (AU): 4015	PA: 54° Mag: 50x El: 26° / Az: 285°

Albireo is a beautiful double star in the constellation Cygnus, the swan. It is easy to find and easy to see with a small telescope. You'll see a bright yellow star contrasting with a fainter blue companion. The blue and gold colors have dubbed it "The Cub Scout Star." It can be easily seen in small telescopes. Albireo is about 430 light years away.

M39 (Cyg)

RA: 21h 32m	Mag(v): 4.6	Type: Open Cluster (NGC: 7092)
Dec: 48° 25'	Size: 32 arcmin	
Distance: 824 ly		Mag: Low El: 56° / Az: 298°

M39 is a beautiful open cluster with about 10 bright blue stars that stand out

in a roughly triangular shape. Four of the brighter stars form the corners and side of the triangle. There are about 30 stars spread out over an area about the size of the full moon. M39 is actually about 8 light years in diameter and 900 light years from earth. It is a good view in binoculars since it is about ½ degree across.

North American Nebula - Caldwell 20 (Cyg)

RA: 20h 59m	Mag(v): 4	Type: Nebula (NGC: 7000)
Dec: 44° 32'	Size: 100 arcmin	
Distance: 1600 ly		Mag: Binoculars El: 50° / Az: 294°

A nebula that is more than four times the size of the full moon. It will appear as a foggy patch of light. It is a large interstellar cloud of ionized hydrogen gas. A band of interstellar dust absorbs the light to give it the rough shape of North America.

Nu Draconis (Dra)

RA: 17h 32m	Mag(v): 4.88	Type: Double Star
Dec: 55° 11'	Sep: 63.4 arcsec	SP Class: A6, A4
Distance: 99 ly	Sep (AU): 1900	PA: 312° Mag: 10-50x El: 24° / Az: 323°

A double star, with nearly equal magnitudes, and a 44,000 year rotation period.

Omicron 2 Eridani - Keid, Beid, 40 Eri (Eri)

RA: 4h 15m	Mag(v): 4.5, 9.9	Type: Double Star
Dec: -7° -39'	Sep: 83, 9 arcsec	SP Class: K1V, DA4, M4
Distance: 125 ly	Sep (AU): 418, 45	PA: 105, 330° El: 21° / Az: 122°

This triple star system contains the most easily seen white dwarf star. While only 17,000 miles in diameter it is so dense that one cubic inch would weigh two tons. A very dim red dwarf with only 16% the mass of our Sun.

Alpha Geminorum - Castor (Gem)

RA: 7h 35m	Mag(v): 1.9, 2.9	Type: Double Star
Dec: 31° 53'	Sep: 4, 71 arcsec	SP Class: A0IV
Distance: 52 ly	Sep (AU): 60, 1145	PA: 61, 164° Mag: 50-100x El: 12° / Az: 58°

Discovered as a visual binary in 1678, there are three visible stars that orbit with period of 19 hours and 10 days. Each of the two stars are also an eclipsing binary system. A nearby binary system is also gravitationally linked making this a sextuple star system.

M35 - Collinder 82 (Gem)

RA: 6h 9m	Mag(v): 5.3	Type: Open Cluster (NGC: 2168)
Dec: 24° 21'	Size: 28 arcmin	
Distance: 2800 ly		Mag: Low El: 22° / Az: 77°

This open cluster is next to NGC 2158, a globular cluster, and makes for a double treat.

19 Lyncis - Struve 1062 (Lyn)

RA: 7h 23m	Mag(v): 5.6	Type: Double Star
Dec: 55° 17'	Sep: 14.8 arcsec	SP Class: B4V
Distance: 468 ly		PA: 315° Mag: 100x El: 28° / Az: 40°

A blue double star.

Epsilon Lyrae - The Double Double (Lyr)

RA: 18h 44m	Mag(v): 4.6, 5, 6	Type: Double Star
Dec: 39° 37'	Sep: 200,150,64 arcsec	SP Class: F1V, A8V
Distance: 162 ly	Sep (AU): 10200, 128	PA: 173, 350, 82° Mag: Binoculars El: 25° / Az: 302°

This system contains two sets of binary stars.

Caldwell 50 (Mon)

RA: 6h 32m	Mag(v): 4.8	Type: Open Cluster (NGC: 2244)
Dec: 4° 56'	Size: 24 arcmin	
Distance: 5200 ly		El: 6° / Az: 88°

An open cluster in the Rosette Nebula.

Christmas Tree - Cone Nebula (Mon)

RA: 6h 41m	Mag(v): 3.9	Type: Nebula (NGC: 2264)
Dec: 9° 53'	Size: 20 arcmin	
Distance: 2600 ly		El: 7° / Az: 83°

A very young open cluster with 150 members

Beta Orionis - Rigel (Ori)

RA: 5h 15m	Mag(v): 0.1, 6.8	Type: Double Star
Dec: -8° -12'	Sep: 10 arcsec	SP Class: B8Ia
Distance: 773 ly	Sep (AU): 2250	PA: 202° Mag: 100x El: 11° / Az: 111°

Rigel is a violet-blue supergiant star in the constellation Orion. At 854 light years away, it is the 7th brightest star in the Earth's sky, where it shines at an apparent visual magnitude of 0.18. Rigel is a component of a multiple-star

system and an intrinsic variable star that varies between magnitudes 0.17 and 0.22 over a period of 2.07 days.

Delta Orinis - Mintaka (Ori)

RA: 5h 32m	Mag(v): 2.2, 6.3	Type: Double Star
Dec: 0° -18'	Sep: 53 arcsec	SP Class: O9.5II, B0.5II
Distance: 690 ly		Mag: 10x El: 13° / Az: 103°

This star called Mintaka means bell in Arabic. It is the rightmost of the three belt stars in Orion. A magnitude 7 star orbits it on 5.7 day period.

M42 - Orion Nebula (Ori)

RA: 5h 35m	Mag(v): 4	Type: Nebula (NGC: 1976)
Dec: -5° -27'	Size: 65 arcmin	
Distance: 1300 ly		Mag: Low El: 9° / Az: 106°

One of the brightest and most photographed nebula it is visible to the naked eye. It is a treat through binoculars or a small telescope. The Orion Nebula contains a very young open cluster, known as the Trapezium due to the asterism of its primary four stars. Two of these can be resolved into their component binary systems on nights with good seeing, giving a total of six stars. The stars of the Trapezium, along with many other stars, are still in their early years.

Sigma Orionis (Ori)

RA: 5h 39m	Mag(v): 4.0, 7.5, 6.5	Type: Double Star
Dec: -2° -36'	Sep: 13 arcsec	SP Class: O9, B0, A2, B2
Distance: 1148 ly	Sep (AU): 90	Mag: 50x El: 10° / Az: 103°

Quintuple star system

Theta Orionis - Trapezium (Ori)

RA: 5h 35m	Mag(v): 4, 6, 8	Type: Double Star
Dec: -5° -23'	Sep: 19 arcsec	SP Class: B, O
Distance: 1600 ly	Sep (AU): 5111, 12500	PA: 31, 132, 96° Mag: 100x El: 9° / Az: 106°

These stars are in the center and illuminate the Great Orion Nebula, M42. There are more than 300 very young stars in this stellar nursery at roughly 300,000 years old. Four main stars should be visible.

Beta Perseus - Algol (Per)

RA: 3h 8m	Mag(v): 2.1	Type: Double Star
Dec: 40° 57'		SP Class: B8V, K0

Distance: 93 ly	Sep (AU): 0.062	El: 63° / Az: 79°
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An eclipsing binary star dropping from magnitude 2.1 to 3.4 about every 2.8 days.

Double Cluster - Caldwell 14, Chi Persei (Per)

RA: 2h 20m	Mag(v): 3.7, 3.8	Type: Open Cluster (NGC: 869, 884)
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Dec: 57° 8'	Size: 60 arcmin	SP Class: B0
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Distance: 7500 ly		Mag: Binoculars El: 68° / Az: 36°
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This open cluster has over 300 blue-white super-giant stars in each cluster.

M34 (Per)

RA: 2h 42m	Mag(v): 5.5	Type: Open Cluster (NGC: 1039)
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Dec: 42° 46'	Size: 35 arcmin	
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Distance: 1500 ly		Mag: Low El: 68° / Az: 77°
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This loose open cluster contains about 20 brighter stars.

Aldebaran (Tau)

RA: 4h 36m	Mag(v): 0.87	Type: Star
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Dec: 16° 31'		SP Class: K5III
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Distance: 65 ly		El: 35° / Az: 99°
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This orange giant is one of the brightest stars in the night sky.

M45 - Pleiades, Seven Sisters (Tau)

RA: 3h 47m	Mag(v): 1.6	Type: Open Cluster
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Dec: 24° 7'	Size: 110 arcmin	SP Class: B
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Distance: 444 ly		Mag: Eyes El: 49° / Az: 100°
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One of the nearest star clusters to Earth and most obvious to the naked eye it has been mentioned since antiquity in cultures around the world. A faint reflection nebulosity is seen around the stars from interstellar dust.

Theta Tauri - in Hyades (Tau)

RA: 4h 29m	Mag(v): 3.4, 3.8	Type: Double Star
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Dec: 15° 52'	Sep: 300 arcsec	SP Class: K0, A7
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Distance: 154 ly		Mag: naked eye El: 36° / Az: 101°
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A white class A giant star next to a dimmer orange type K. The brighter star varies in magnitude from 3.35 to 3.4 over a period of 1.8 hours.

M33 - Triangulum Galaxy (Tri)

RA: 1h 34m	Mag(v): 5.7	Type: Spiral Galaxy (NGC: 0598)
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Dec: 30° 40'	Size: 50 arcmin	
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Distance: 3M ly		El: 75° / Az: 134°
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The third largest member of the Local Group of galaxies, which includes the Milky Way galaxy and the Andromeda galaxy.

Zeta Ursae Majoris - Mizar (Uma)

RA: 13h 24m	Mag(v): 2.3, 4.0	Type: Double Star
Dec: 54° 56'	Sep: 14 arcsec	SP Class: A1V, A5V
Distance: 83 ly	Sep (AU): 345, 16	PA: 152, 71° Mag: 10-50x El: 7° / Az: 354°

Mizar and it's neighbor Alcor are a binary star system that is 80 light years away in the constellation Ursa Major, the Great Bear, otherwise known as the Big Dipper. These stars are found in the middle of the handle of the Big Dipper. In the past, some have used the two stars as a test of your eyesight if you can see both stars. Mizar, the brighter star, is itself a double star, though you won't see this in a telescope. Spectroscopic analysis shows Mizar has two additional stars and Alcor has three. Spectroscopy gives us the color spectrum of each star which astronomers can use to determine if it is coming from a single star or more than one. You are really looking at a total of seven stars.

Alpha Ursae Minoris - Polaris (Umi)

RA: 2h 32m	Mag(v): 2.1, 9	Type: Double Star
Dec: 89° 16'	Sep: 18 arcsec	SP Class: F7Ib
Distance: 325 ly	Sep (AU): 2430	PA: 218° Mag: 50x El: 42° / Az: 0°

The North Star as used in celestial navigation. It has two companion stars that orbit at 18 and 2400 AU. Polaris is a 4.5 solar mass F7 yellow supergiant.

Coathanger - Brocchi's cluster, Al Sufi's cluster (Vul)

RA: 19h 25m	Mag(v): 3.6	Type: Asterism
Dec: 20° 12'	Size: 60 arcmin	SP Class: A, K
Distance: ly		Mag: Binoculars El: 21° / Az: 279°

Ten visible stars make up a coathangar shape spanning 1 degree across.