

# Constellations of the Month

## Andromeda

### Small Scope Objects:

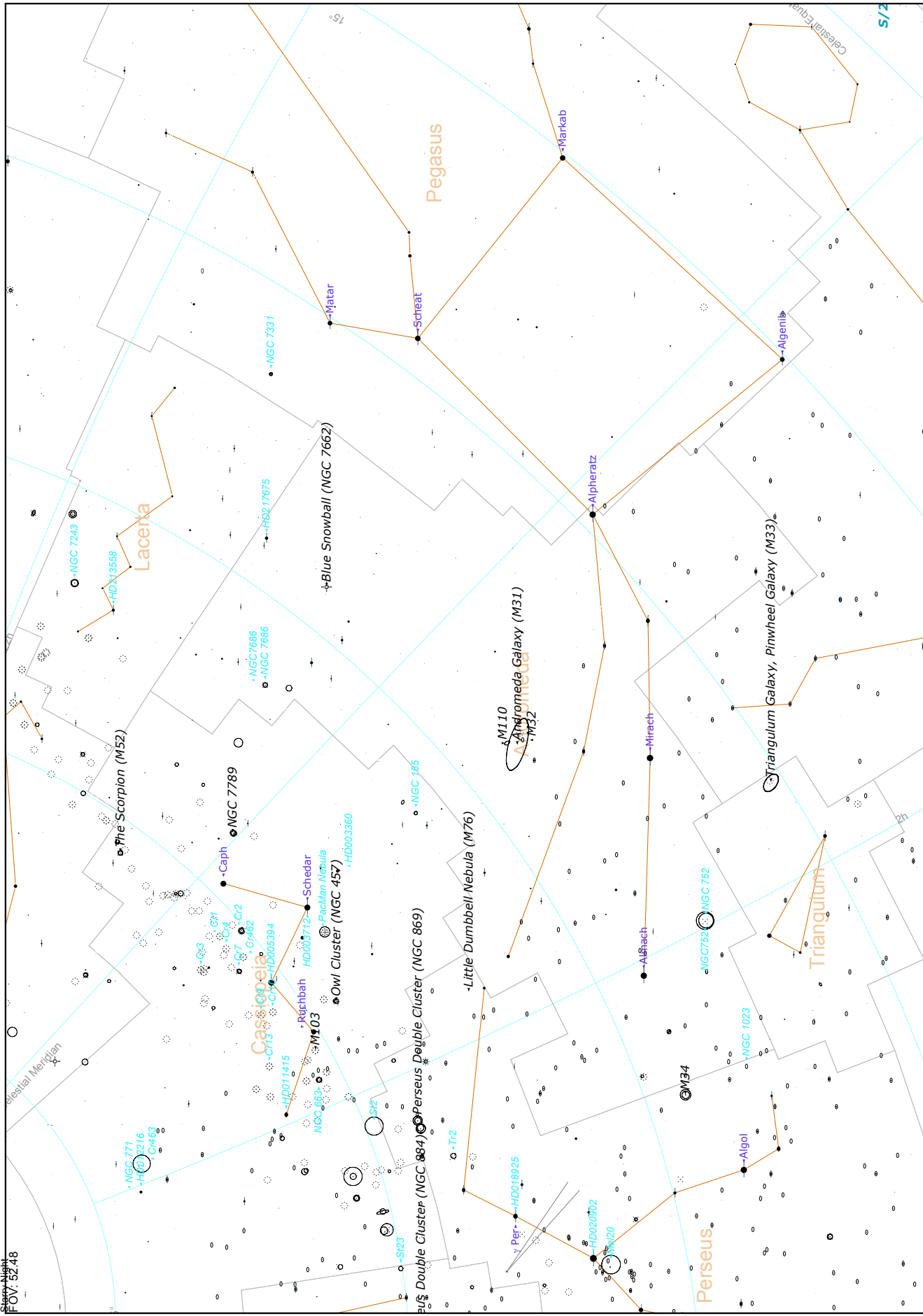
Name	R.A.	Decl.	Details
<b>g And (Almach)</b>	02hr 04m	+42° 20'	A colourful double star system, with a separation of 10 arc seconds in P.A. 63°. The primary star is mag. 2.2, golden yellow in colour. The secondary is mag. 5.1, a very contrasty greenish-blue.
<b>R And</b>	00hr 24m	+38° 34'	A long period variable star, located a few degrees SW of <b>M31</b> . Varies from mag. 5.3 to 15.1 over a period of 409 days.
<b>M31' (NGC 224)</b>	00hr 42.7m	+41° 16'	The "Andromeda Galaxy" - the brightest galaxy in the sky, at mag. 3.5. Located about 2.2 Mly away, covering 192 x 62 arcminutes of sky. The bright inner core is easily picked up naked eye from a dark site. Much of the galaxy is much fainter, requiring binoculars or a 'scope to see. Two dust lanes are easily visible in small scopes with good skies.
<b>M32 (NGC 221)</b>	00hr 42.7m	+40° 52'	Located slightly south of <b>M31</b> , this E2 galaxy glows brightly at mag. 8.2. Much smaller than <b>M31</b> at 8.7 x 6 arc minutes, visible in the same low power field.
<b>M110 (NGC 205)</b>	00hr 40.4m	+41° 41'	Another bright mag 8 galaxy, located NNE of <b>M31</b> . An E5 peculiar, 22 x 11 arc minutes in size with lower surface brightness than <b>M32</b> .
<b>NGC 752</b>	01hr 58m	+37° 51'	One of the finest open clusters, visible to the naked eye from a dark site. 49 arc minutes in diameter, or 1.5 moon diameters. A loose grouping of 60 stars, 8th magnitude and fainter. Total magnitude is 5.7.

### Big Scope Objects:

Name	R.A.	Decl.	Details
<b>NGC 206</b>	00hr 40m	+40° 33'	A huge star cloud near the SW tip of <b>M31</b> , about 2.5 x 4 arc min.
<b>NGC 404</b>	01hr 09m	+35° 43'	An S03 galaxy, located almost on top of b And, which can make observing difficult. Use medium to high power to get b out of the field. Mag. 11.2, 3.4 arc minutes in diameter.
<b>NGC 891"</b>	02hr 22.6m	+42° 21'	A wonderful edge-on Sb spiral galaxy. Magnitude 12.2, 14 x 2.4 arc minutes in size. Larger 'scopes will show a bright central bulge, and a thin dust lane. (110NGC)
<b>NGC 7662"</b>	23hr 25.9m	+42° 33'	The "Blue Snowball" - a bright but small planetary nebula. About 17 arc seconds in diameter, mag 8.5. Look for a small bluish-green disk at high power with a 13.2 mag central star.(110NGC)
<b>NGC 7640</b>	23hr 22m	+40° 51'	Another edge-on spiral galaxy, type SBc(s). Mag 12.5, 11 x 1.9 arc minutes in size.
<b>NGC 996 Group</b>	02hr 39m	+41° 39'	A group of small 14-15th mag galaxies, arranged in a circle, about ¼° in diameter.

## Challenge Objects:

	<b>Name</b>	<b>R.A.</b>	<b>Decl.</b>	<b>Details</b>
	<b>AGC 347</b>	02hr 26m	+41° 52'	An easy (!) Abell galaxy cluster. 32 faint galaxies 13.3 and fainter, in an 86 arc minute field. Located ESE of <b>NGC 891</b> .
		.	.	Any Globular cluster associated with <b>M31</b> !



Viewing from Prince George, Canada  
Chart centre (J2000): RA: 0h 12.337m Dec: 40° 13.480'  
Altitude: 67° 16.053', Azimuth: 115° 43.847' (south east)

Long: -122° 43' 42" Lat: 53° 55' 09"  
2010/10/11 10:12:31 PM (Local)  
Limiting Magnitude: 6.4

# Constellations of the Month

## Casseopeia

### Small Scope Objects:

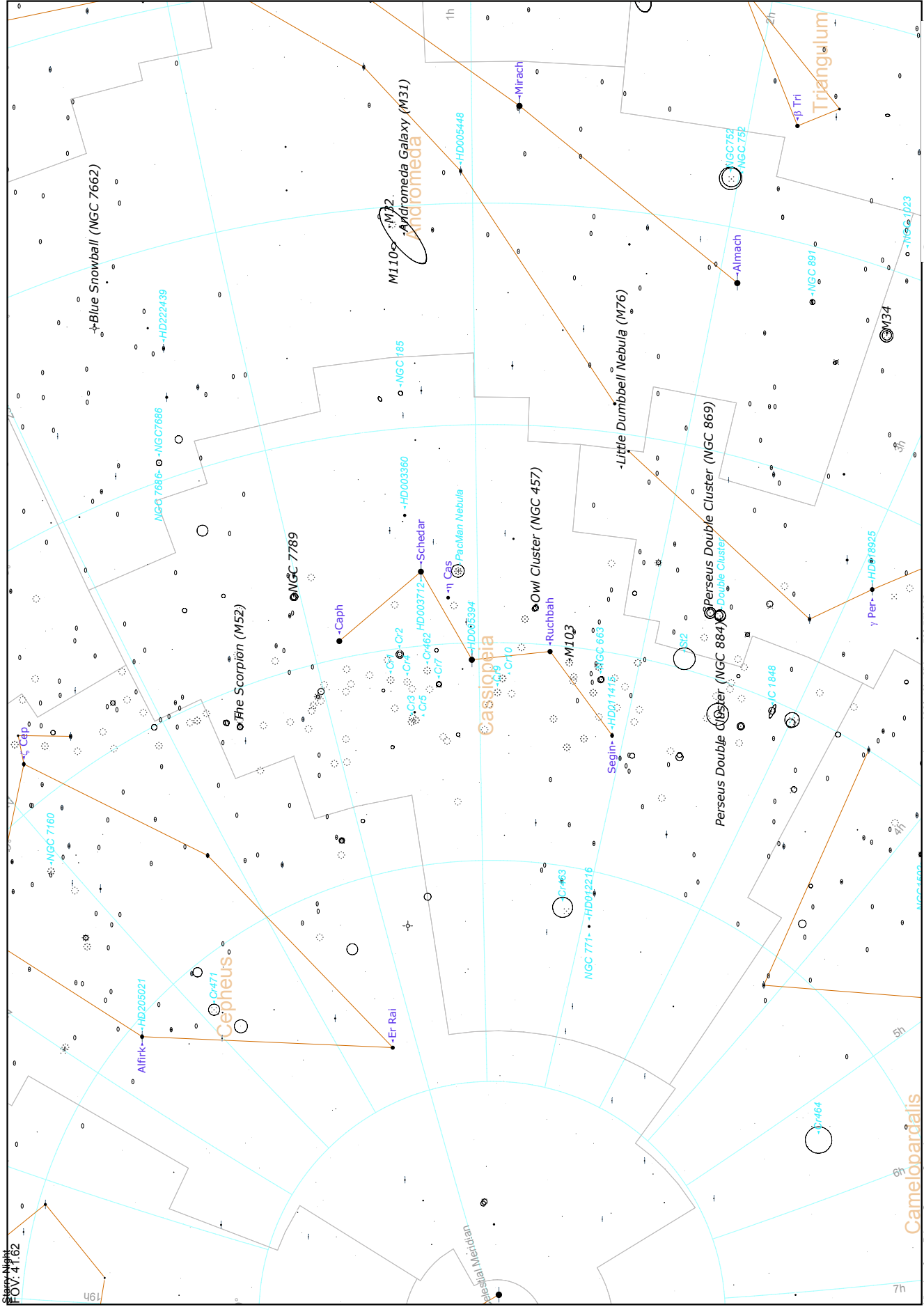
Name	R.A.	Decl.	Details
<b>NGC 457'</b>	01hr 19.1m	+58° 20'	The "Owl Cluster" - A bright open cluster of 80 stars, mag 6.4. The stars trace out the shape of an owl 13 arc minutes across, the 2 brightest stars mark the "eyes". (110NGC) Look for <b>NGC 436</b> - a small mag 8.8 cluster of 30 stars 32 arc minutes NW.
<b>M52 (NGC 7654)</b>	23hr 24.2m	+61° 35'	A bright, open cluster of 100 stars, 13 arc minutes in size. Stars are easily resolved at mag 8.4 and fainter.
<b>M103 (NGC 581)</b>	01hr 33.2m	+60° 42'	A smaller open cluster of 25 stars 6 arc minutes across, shining at mag. 7.4. Stars are mag 10.6 and fainter. Appears triangular shaped.
<b>Trumpler 1</b>	01hr 36m	+61° 17'	A small open cluster of 20 stars not far from <b>M103</b> . Mag 8.1 covering 5 arc minutes of sky, stars are mag 9.6 and fainter.
<b>NGC 7789"</b>	23hr 57.0m	+56° 44'	A very rich open cluster of 300 stars, visible in binoculars. 16 arc minutes across, mag 6.7, stars are mag 10.7 and fainter. (110NGC)
<b>NGC 129</b>	00hr 30m	+60° 14'	Another rich open cluster of 35 stars, mag 6.5. 21 arc minutes across, stars are mag 8.6 and fainter.
<b>NGC 663'</b>	01hr 46.0m	+61° 15'	A mag 7.1 open cluster of 80 stars, 16 arc minutes across. (110NGC) Look for clusters <b>NGC 654</b> and <b>NGC 659</b> nearby.

### Big Scope Objects:

Name	R.A.	Decl.	Details
<b>NGC 281"</b>	00hr 52.8m	+56° 37'	The "Pacman Nebula" - a bright emission nebula, 28 x 21 arc minutes. Use low power and a nebula filter. (110NGC)
<b>NGC 147</b>	00hr 33m	+48° 30'	A companion dwarf elliptical galaxy to <b>M31</b> . Mag 9.3, 12.9 x 8.1 arc minutes in size. No visible detail in amateur telescopes.
<b>NGC 185'</b>	00hr 39.0m	+48° 20'	Another dwarf elliptical companion to <b>M31</b> . Slightly brighter at mag 9.2, 11.5 x 9.8 arc minutes. (110NGC)
<b>IC 289'</b>	03hr 10.3m	+61° 19'	A small, faint planetary nebula, 34 arc seconds in diameter, mag 12.3p, central star is mag 15.9. (110NGC)
<b>NGC 7635'</b>	23hr 20.7m	+61° 12'	The "Bubble Nebula" - located near <b>M52</b> , covers 15 x 8 arc minutes of sky. A difficult nebula, requires good skies and a nebula filter. (110NGC)
<b>NGC 278</b>	00hr 52m	+47° 33'	A compact elliptical galaxy, 2.2 x 2.1 arc minutes, mag 10.9.

## Challenge Objects:

	Name	R.A.	Decl.	Details
	<b>IC 59 and IC 63</b>	00hr 57m	+61° 04'	A pair of faint reflection nebula near g Cass. g makes them difficult to observe - use medium power from a dark site and use clean optics! 10 x 5 and 10 x 3 arc min.
	<b>IC 1805 and IC 1848</b>	02hr 43m	+60° 50'	A pair of large, sprawling emission nebula. 96 x 80 and 100 x 53 arc minutes in size. Try using a nebula filter with binoculars or finder scope from a DARK site.



Viewing from Prince George, Canada  
 Chart centre (J2000): RA: 0h 53.999m Dec: 60° 23.243'  
 Altitude: 69° 27.029', Azimuth: 56° 49.047' (north east)

Long: -122° 43' 42" Lat: 53° 55' 09"  
 2010/10/11 10:16:38 PM (Local)  
 Limiting Magnitude: 6.7

FOV: 41.62

# Constellations of the Month

## Draco & Ursa Minor

### Small Scope Objects:

Name	R.A.	Decl.	Details
<b>a UMi (Polaris)</b>	02hr 32m	+89° 16'	The “North Star”. Shines at mag 1.99 (slightly variable) is the 49th brightest star. Polaris has a pale blue companion at 9th mag, 18.5 arc seconds distant. (UMi)
<b>NGC 6543'</b>	17hr 58.6m	+66° 38'	The “Cat’s Eye Nebula” - an easy mag 8.8 planetary nebula, only 18 arc seconds in diameter with a mag. 11 central star. (110NGC) (Dra)
<b>M102 (NGC 5866)?</b>	15hr 06.5m	+55° 46'	A bright but almost featureless E6p lenticular galaxy, mag 10.0. - 5.2 x 2.3 arc minutes. Appears originally to be a duplicate observation of <b>M101</b> . (Dra)

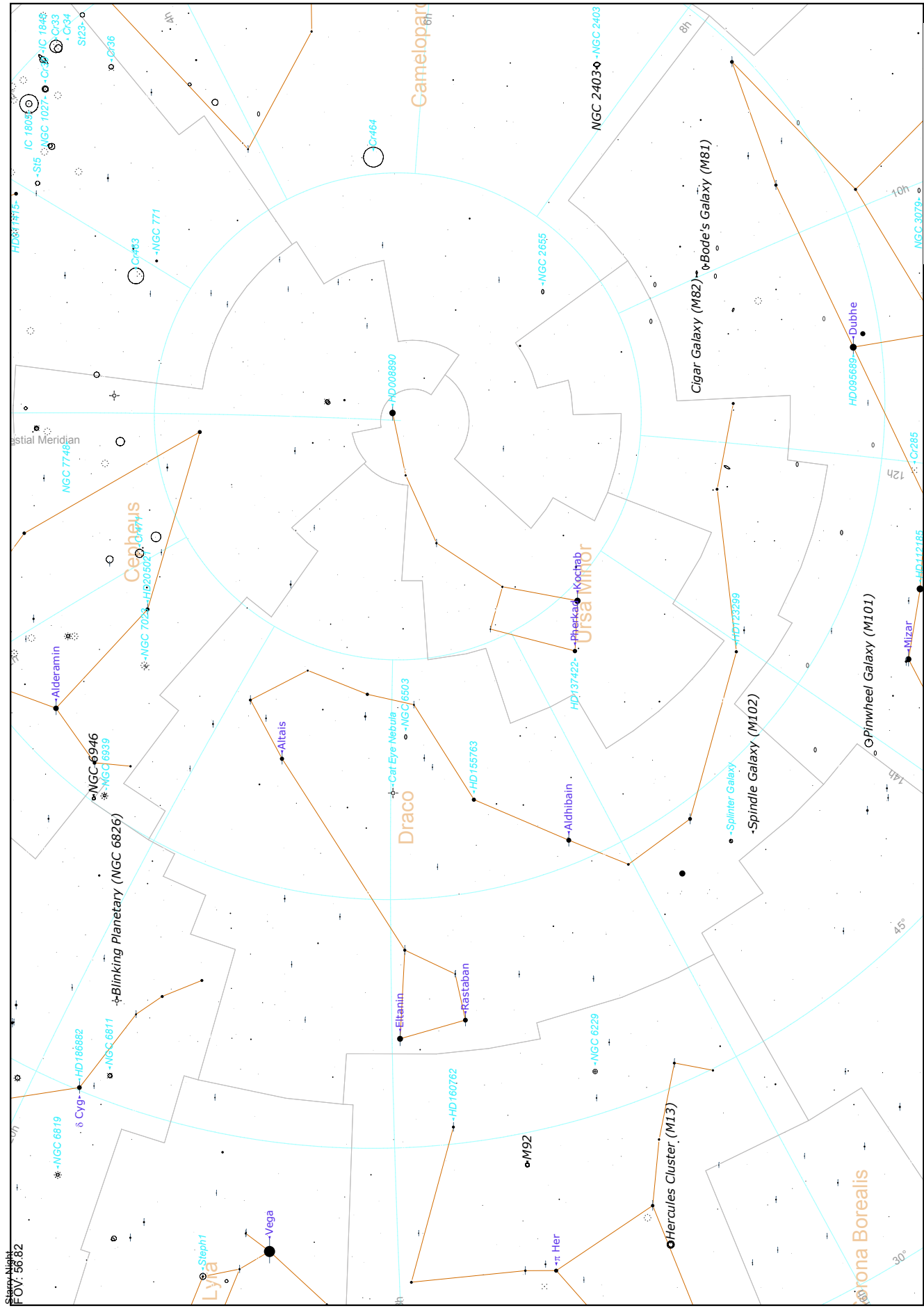
### Big Scope Objects:

Name	R.A.	Decl.	Details
<b>NGC 5907''</b>	15hr 15.9m	+56° 20'	A classic edge-on Sb spiral galaxy. Mag 10.4, 12.3 x 1.8 arc minutes in size, close to <b>M102</b> . Dust lane visible in larger scopes. (110NGC) (Dra)
<b>NGC 6503'</b>	17hr 49.4m	+70° 09'	A fairly bright Sb spiral galaxy at mag 10.2. 6.2 x 2.3 arc minutes. (110NGC) (Dra)
<b>NGC 5985 Group</b>	15hr 40m	+59° 20'	The “Sampler” - brightest of a nice trio of galaxies, a nice multi-arm face-on Sb spiral at mag 11.0, 5.5 x 3.2 arc min. Look for 12th mag <b>NGC 5982</b> (elliptical) and mag 13.9 <b>NGC 5981</b> (edge-on Sb-c) in the same field. (Dra)
<b>NGC 4236</b>	12hr 17m	+69° 28'	A bright barred spiral galaxy. 18.6 x 6.9 arc min, mag 9.7. (Dra)
<b>NGC 4256</b>	12hr 18m	+65° 54'	An edge-on Sb spiral located 3.6° south of <b>NGC 4236</b> . Mag 12.4, 4.6 x 0.7 arc minutes. (Dra)
<b>NGC 3147</b>	10hr 17m	+73° 24'	A nice, compact Sb galaxy mag 11.3, 3.9 x 3.4 arc min. (Dra)
<b>NGC 6643</b>	18hr 20m	+74° 34'	A multi-arm Sc spiral, mag 12.0, 3.0 x 1.3 arc min. (Dra)
<b>NGC 6015</b>	15hr 51m	+62° 19'	An Sc spiral, mag 11.2, 5.4 x 2.3 arc minutes. (Dra)
<b>NGC 6217</b>	16hr 33m	+78° 12'	Another Sc spiral, mag. 12.0, 3.0 x 2.4 arc min. (UMi)

## Challenge Objects:

	Name	R.A.	Decl.	Details
	<b>Markarian 205</b>	12hr 22m	+75° 19'	A “bright” Quasar, at mag 14.5. Connected (?) to galaxy <b>NGC 4319</b> , 40 arc seconds south of the core of the galaxy. (Dra)
	<b>NGC 3172</b>	11hr 50m	+89° 07'	“Polarissima Borealis” - a rather unremarkable galaxy, except for the fact that it is the closest NGC to the north celestial pole. Mag 13.6, 0.7 x 0.7 arc minutes. (UMi)





- ☉ Quasar
- ☉ Globular Cluster
- ☉ Cluster
- ☉ Variable
- ☉ Multiple
- ☉ Planetary
- ☉ Galaxy

Long: -122° 43' 42" Lat: 53° 55' 09"  
 2010/10/11 10:18:57 PM (Local)  
 Limiting Magnitude: 6.4

Stars Night  
 FOV: 56.82

Viewing from Prince George, Canada  
 Chart centre (J2000): RA: 16h 47' 91.5m Dec: 74° 44' 54.2"  
 Altitude: 52° 16.985', Azimuth: 334° 33.700' (north west)