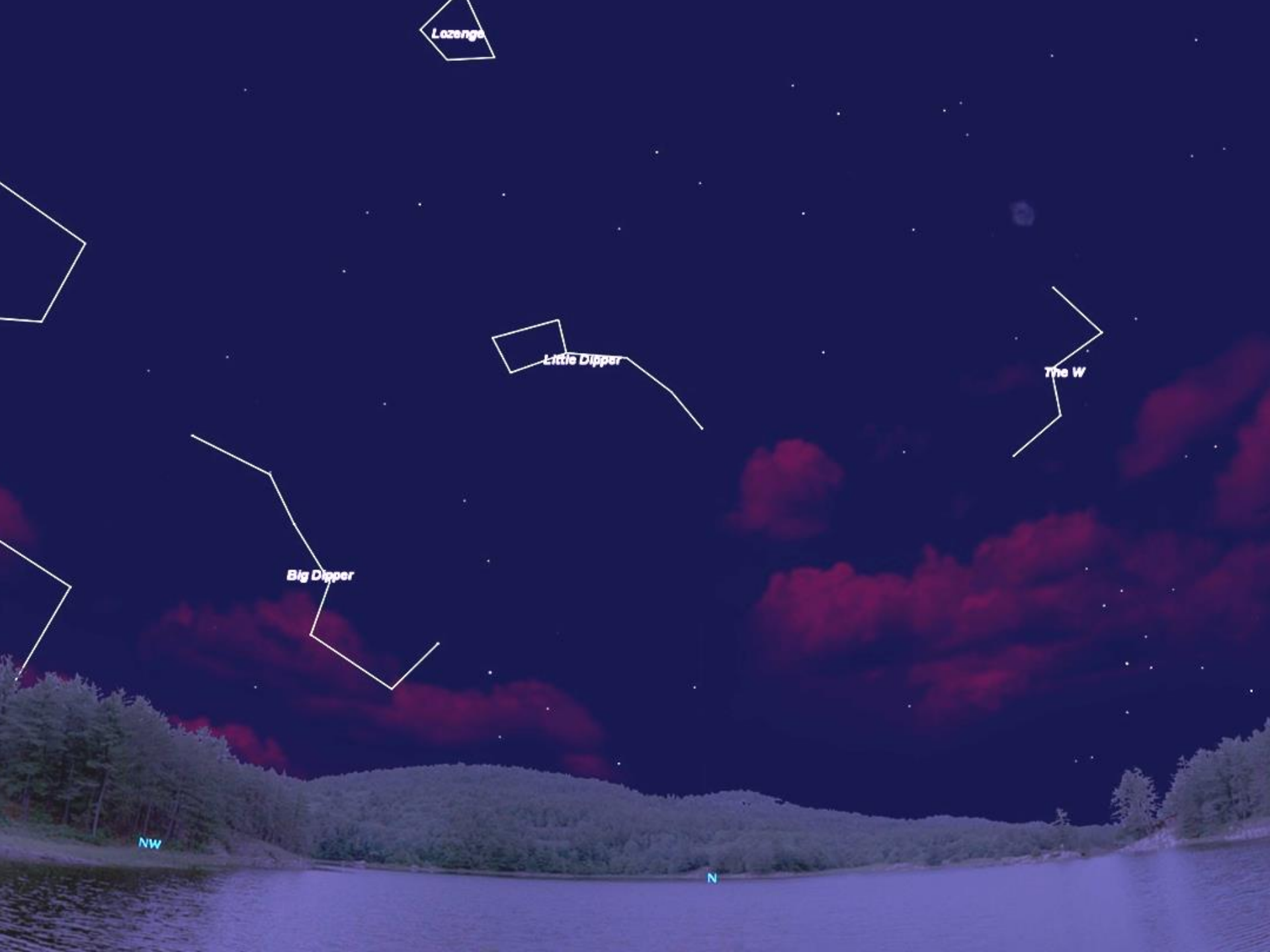
THE NIGHT SKY


NW
N
NE

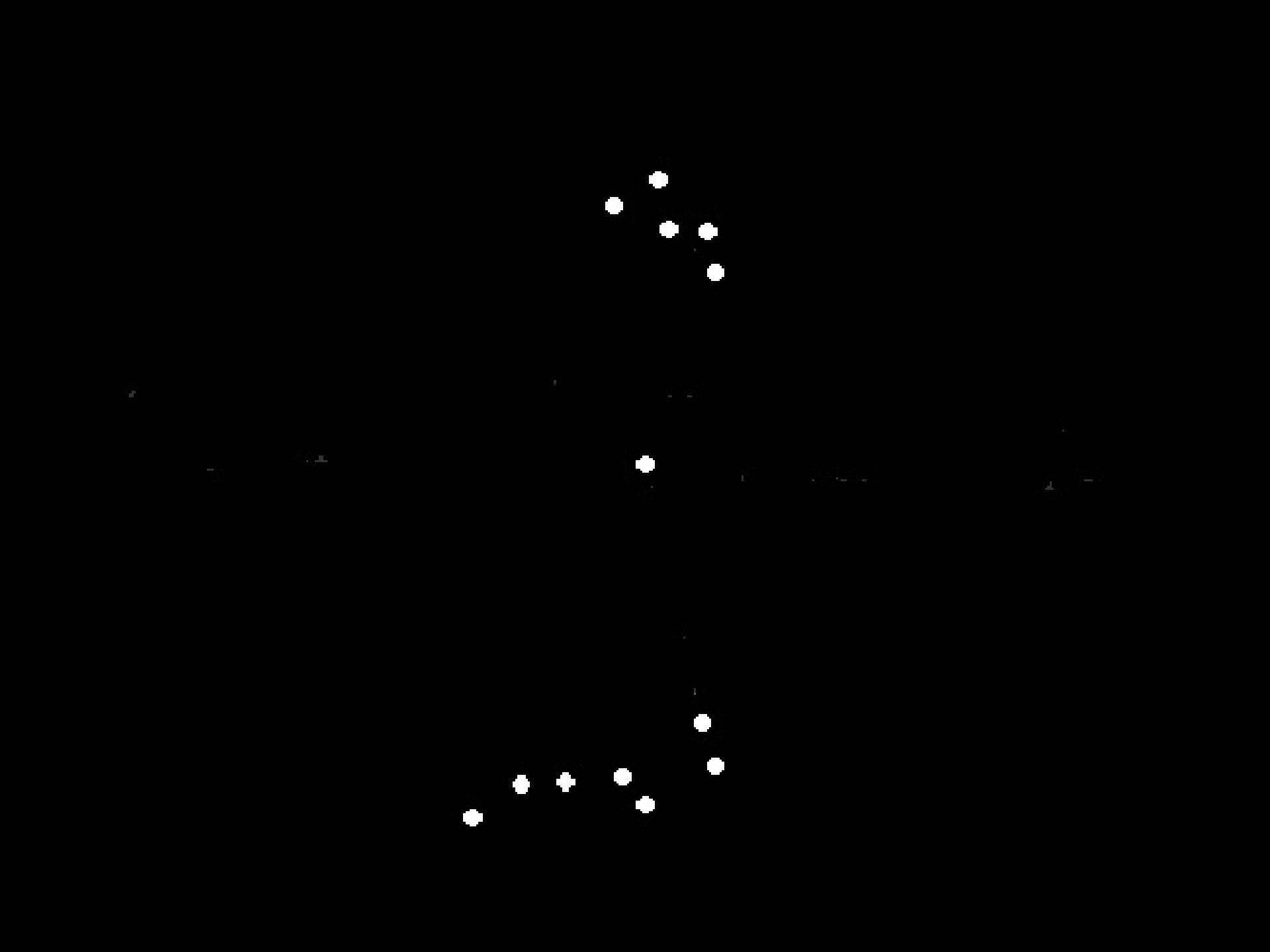

Cygnus
Lacerta
Corona Borealis
Draco
Cepheus
Ursa Minor
Cassiopeia
Andromeda
Canes Venatici
Triangulum
Camelopardalis
Ursa Major
Perseus
NW
N
NE

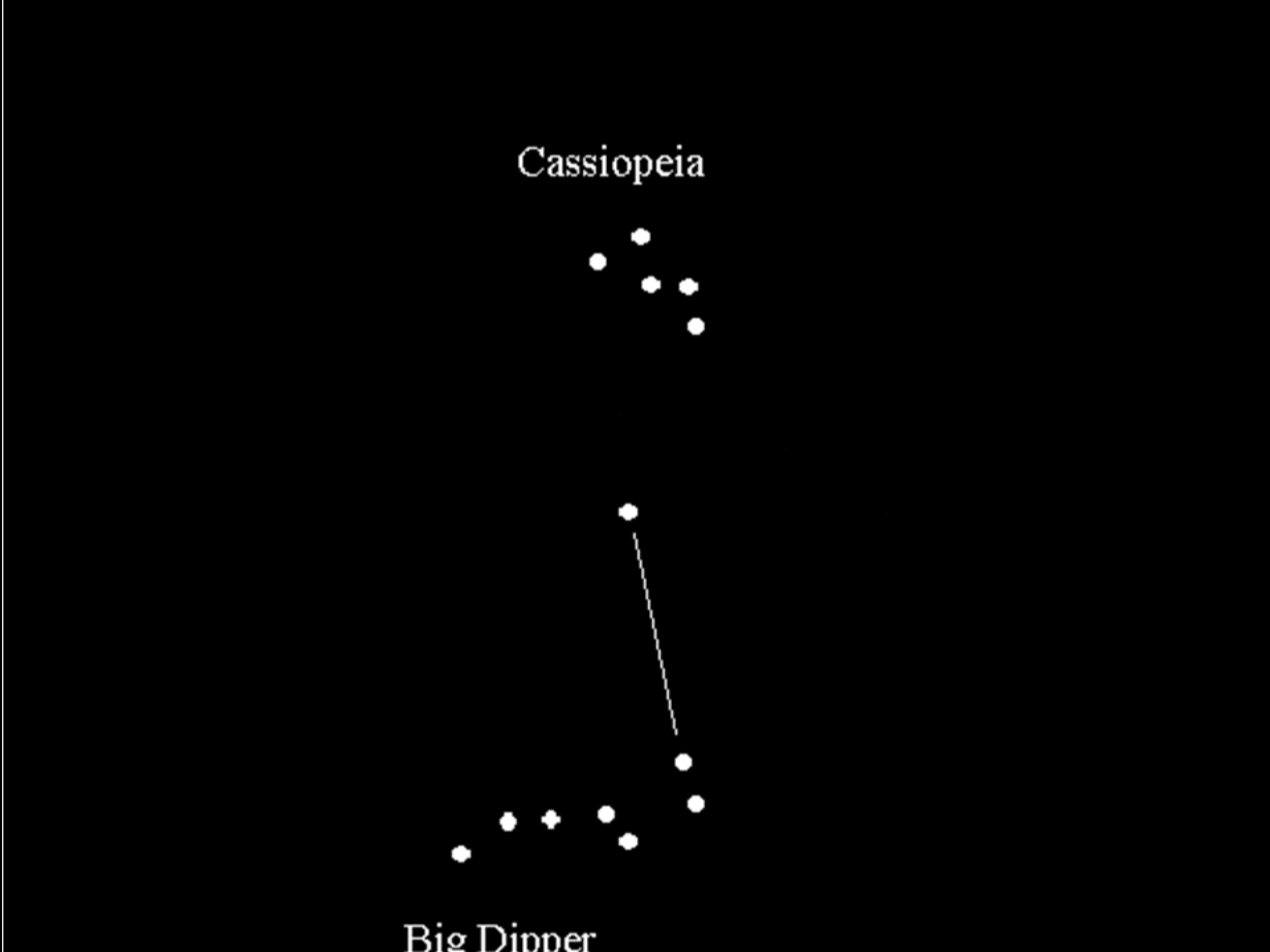

Lozenge
Little Dipper
The W
Big Dipper
NW
N


Lacerta
Draco
Cepheus
Ursa Minor
Andromeda
Cassiopeia
Triangulum
Camelopardalis
Ursa Major
Perseus
NE
N

Finding the North Star

- The North Star is not an especially bright star
- There are not a lot of stars near it that are bright enough to confuse the observer.
- Asterisms that are easily found serve as pointers.




Cassiopeia
Big Dipper


NW
N
NE

Finding the North Star

Alaska State Flag

Finding Your Way Around the Night Sky

- Star Chart
- Planisphere
- Planetarium programs and apps
- Smart Telescope

The Evening Sky Map

FREE* EACH MONTH FOR YOU TO EXPLORE, LEARN & ENJOY THE NIGHT SKY

WWW.SKYMAPS.COM

NORTHERN HEMISPHERE
MARCH 2016

Sky Calendar – March 2016

Get Sky Calendar on Twitter
http://twitter.com/skymaps

1 **Last Quarter Moon** at 23:11 UT.

2 **Moon near Saturn** (86° from Sun, morning sky) at 7h UT. Mag. +0.5.

7 **Moon near Venus** (23° from Sun, morning sky) at 9h UT. Mag. –3.9.

8 **Moon near Mercury** (13° from Sun, morning sky) at 3h UT. Mag. –0.6.

8 **Jupiter at opposition** at 11h UT. Best time to observe the largest planet in the solar system. Mag. –2.6.

9 **New Moon** at 1:54 UT. Start of lunation 1153.

9 **Total Solar Eclipse** along a path from Indonesia to across the Pacific Ocean. Greatest eclipse at 1:57 UT. Partial eclipse visible from SE Asia, China, Japan, and parts of Australia.

10 **Moon at perigee** (closest to Earth) at 7h UT (359,510 km; angular size 33.2′).

13 **Moon near the Pleiades** (evening sky) at 21h UT.

14 **Moon very near Aldebaran** (evening sky) at 14h UT. Occultation visible from central Asia.

15 **First Quarter Moon** at 17:03 UT.

18 **Moon near Beehive cluster** (evening sky) at 23h UT.

20 **Vernal equinox** at 4:30 UT. The time when the Sun reaches the point along the ecliptic where it crosses into the northern celestial hemisphere marking the start of spring in the Northern Hemisphere and autumn in the Southern Hemisphere.

20 **Moon near Regulus** (evening sky) at 18h UT.

22 **Moon near Jupiter** (evening sky) at 3h UT. Mag. –2.5.

23 **Penumbral Lunar Eclipse** from 9:39 to 13:55 UT, mid-eclipse at 11:47 UT. Just visible around mid-eclipse.

23 **Full Moon** at 12:01 UT.

25 **Moon near Spica** (morning sky) at 5h UT.

25 **Moon at apogee** (farthest from Earth) at 14h UT (distance 406,125 km; angular size 29.4′).

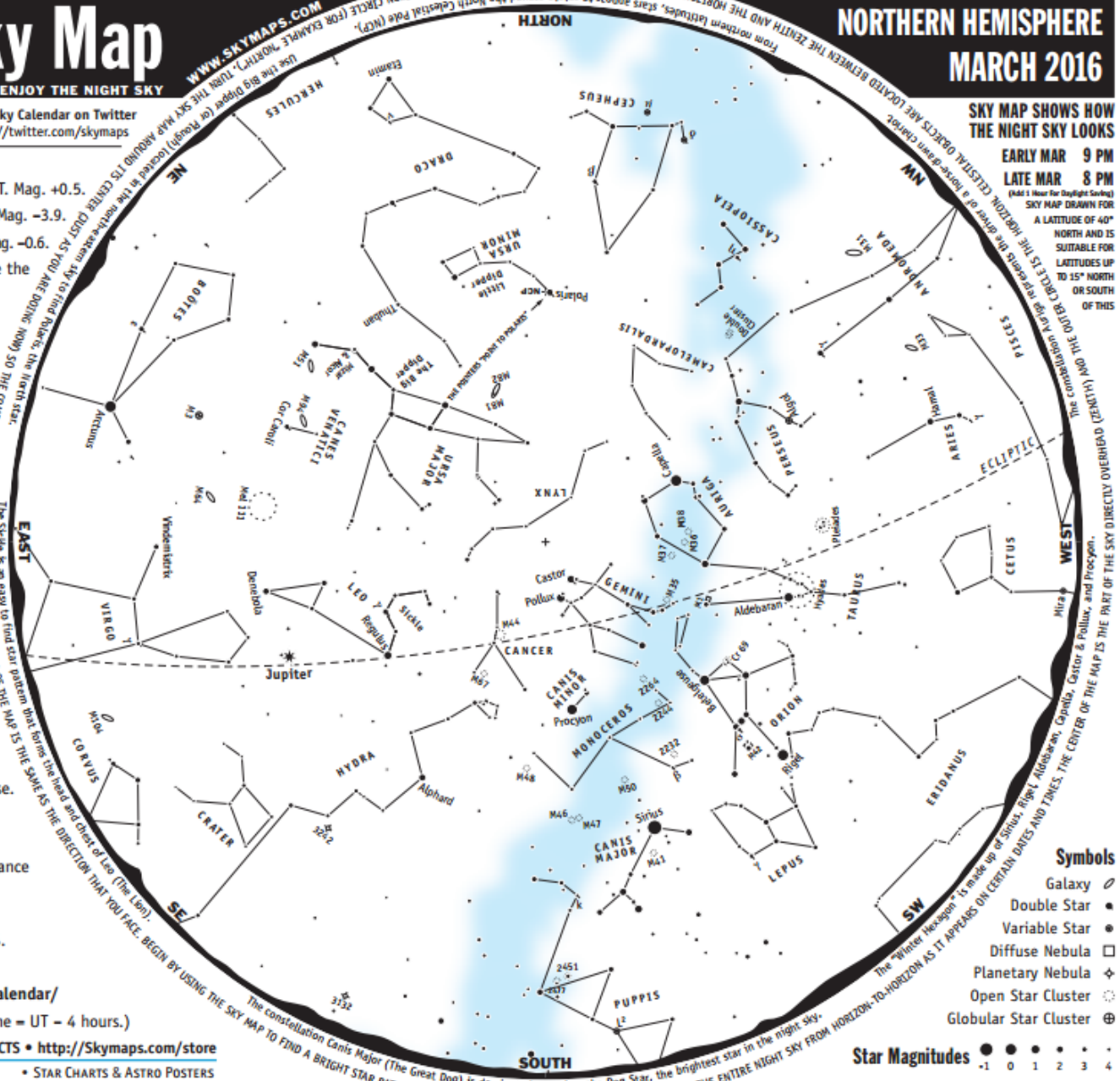
28 **Moon near Mars** (morning sky) at 20h UT. Mag. –0.4.

29 **Moon near Saturn** (morning sky) at 15h UT. Mag. +0.4.

31 **Last Quarter Moon** at 15:17 UT.

More sky events and links at http://Skymaps.com/skycalendar/

All times in Universal Time (UT). (USA Eastern Summer Time = UT – 4 hours.)



Symbols

- Galaxy
- Double Star
- Variable Star
- Diffuse Nebula
- Planetary Nebula
- Open Star Cluster
- Globular Star Cluster

Star Magnitudes -1 0 1 2 3 4


30°- 40°
NORTH LATITUDE
Read with a red-filtered flashlight at night.
WEST
EAST
NORTH
Horizon
Horizon
The Night Sky™
The Original 2-Sided Planisphere
• High Precision • Low Distortion
• Easy to Read at Night
Midnight
12
P.M.
A.M.
JANUARY
FEBRUARY
DECEMBER
NOVEMBER
OCTOBER
SEPTEMBER


Google Sky Map
MOTOROLA
verizon
You found:
Jupiter
SAMSUNG
OK


Advanced GT
NexStar
ALIGN
ENTER
UNDO
M 1
CALD 2
MENU 3
NGC 4
PLANET 5
UP 6
STAR 7
LIST 8
DOWN 9
INFO
TOUR 0
RATE
CELESTRON®

Why Doesn’t it look like the pictures?

- No Color
- Faint
- A little fuzzy

The Problem

Human Eye

- Loses color perception in dim light.
- Shutter Speed of about 1/25th of a second.
- Aperture of about ¼ inch.

Why don't I see any color in the telescope?

Look at these squares outside at night away from any lighting or in a dark room. What color is each of these squares?

What's going on?

The color receptors ("cones") in our eyes are not as numerous and not as sensitive as the black and white receptors ("rods"). In dim light, our color receptors don't work very well, but our black and white receptors do — allowing us to see shades of gray, but not color.

Light Pollution

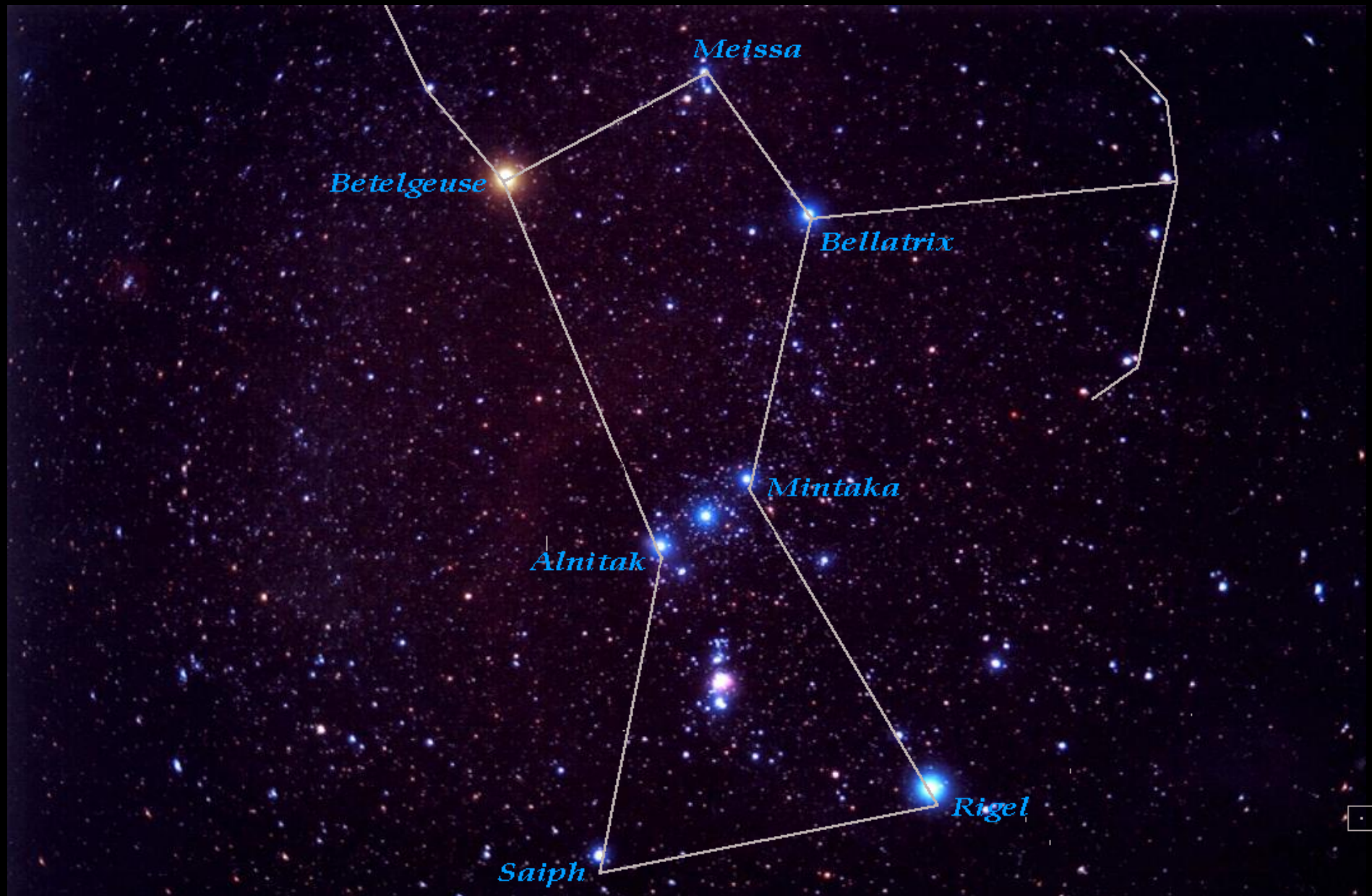
STAR PARTY


ORION
ORION


CELESTRON

What Could You See on 3/3/2017

- With Your Eyes
  - Constellations (Orion)
  - A Star Cluster
  - Jupiter
- Through a telescope
  - Jupiter and Galilean moons
  - Orion Nebula
  - Andromeda Galaxy
  - The Pleiades
  - Star Clusters, Nebula etc.


Meissa
Betelgeuse
Bellatrix
Mintaka
Alnitak
Rigel
Saiph

Pleiades


Jupiter

Jupiter

Jupiter

Orion Nebula

Orion Nebula

Andromeda Galaxy

Andromeda Galaxy

ET Cluster

ET Cluster

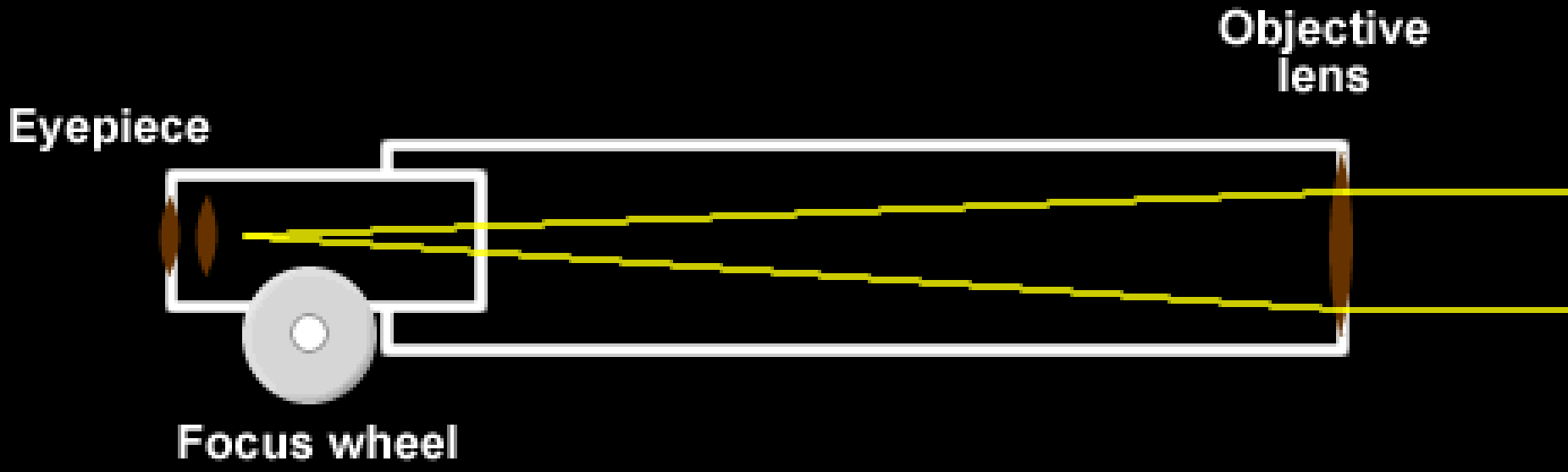
Courtesy

- No white lights
- No Spray products
- Please don't run, roughhouse or make loud noises.
- Avoid touching the telescopes
- NEVER touch glass on a telescope.

Other Opportunities to look Through Telescopes

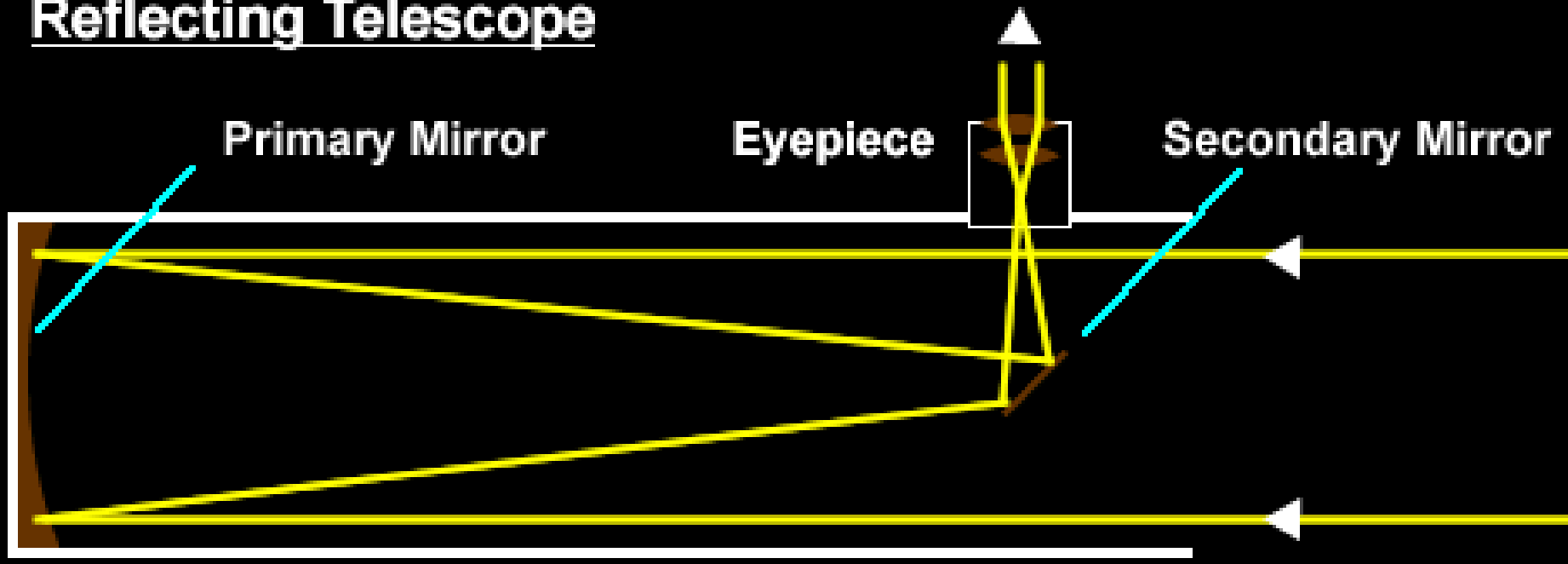
- SMCAS at Crestview Park Twice a Month (See SMCAS.net)
- CSM Jazz Under the Stars
- Chabot Space and Science Center - Friday and Saturday Evenings.
- Foothill Observatory – Friday and Saturday

Refracting Telescope



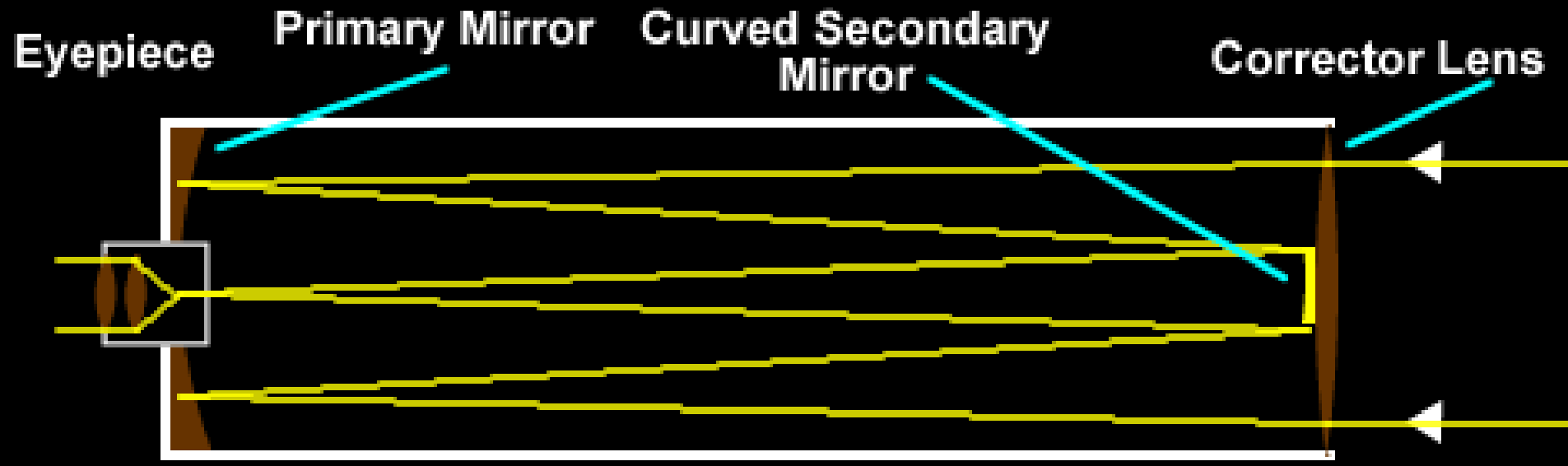

Konusmaker-70
KONUS

Reflecting Telescope




ORION
SkyQuest

Compound Telescope

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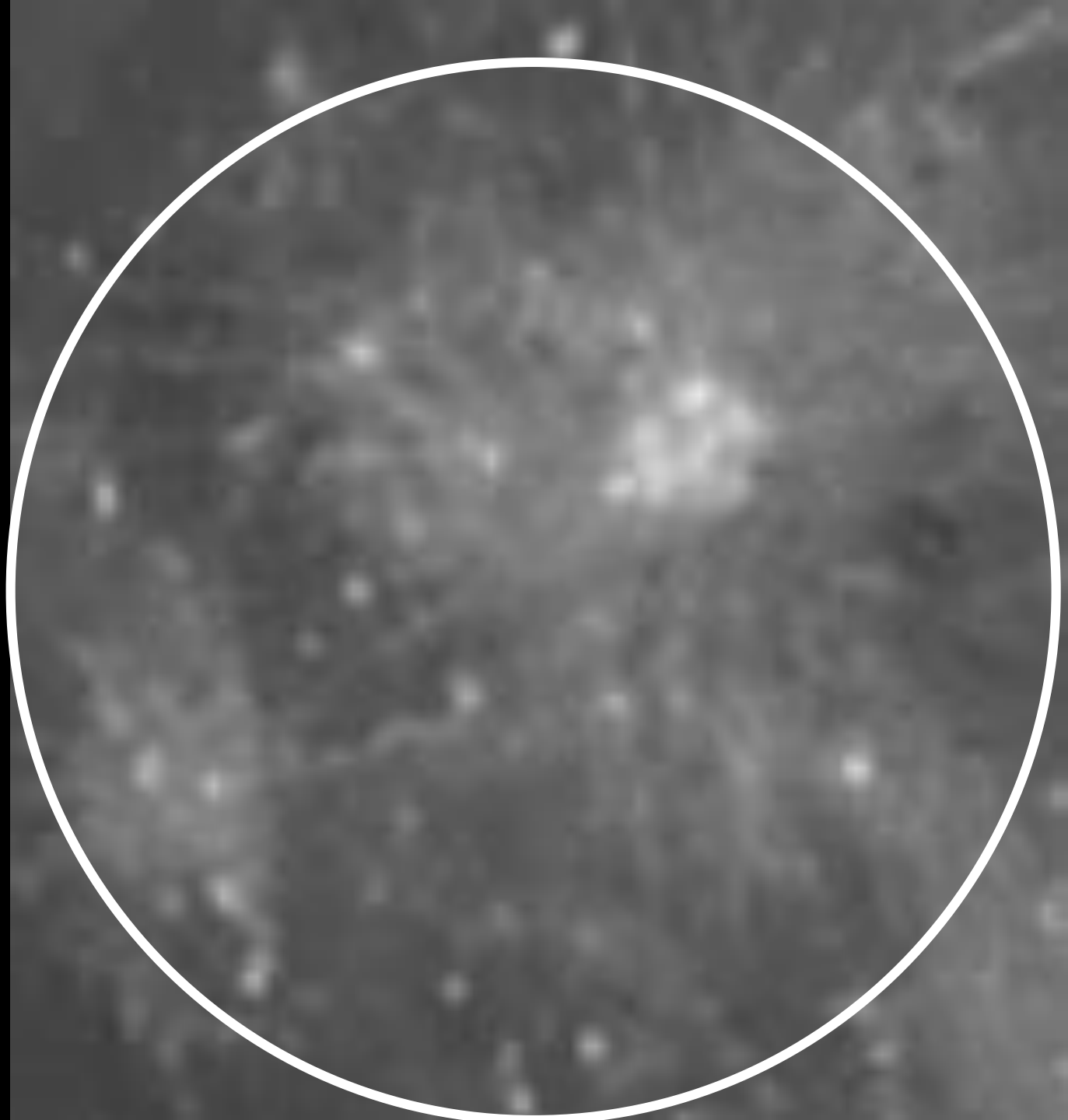
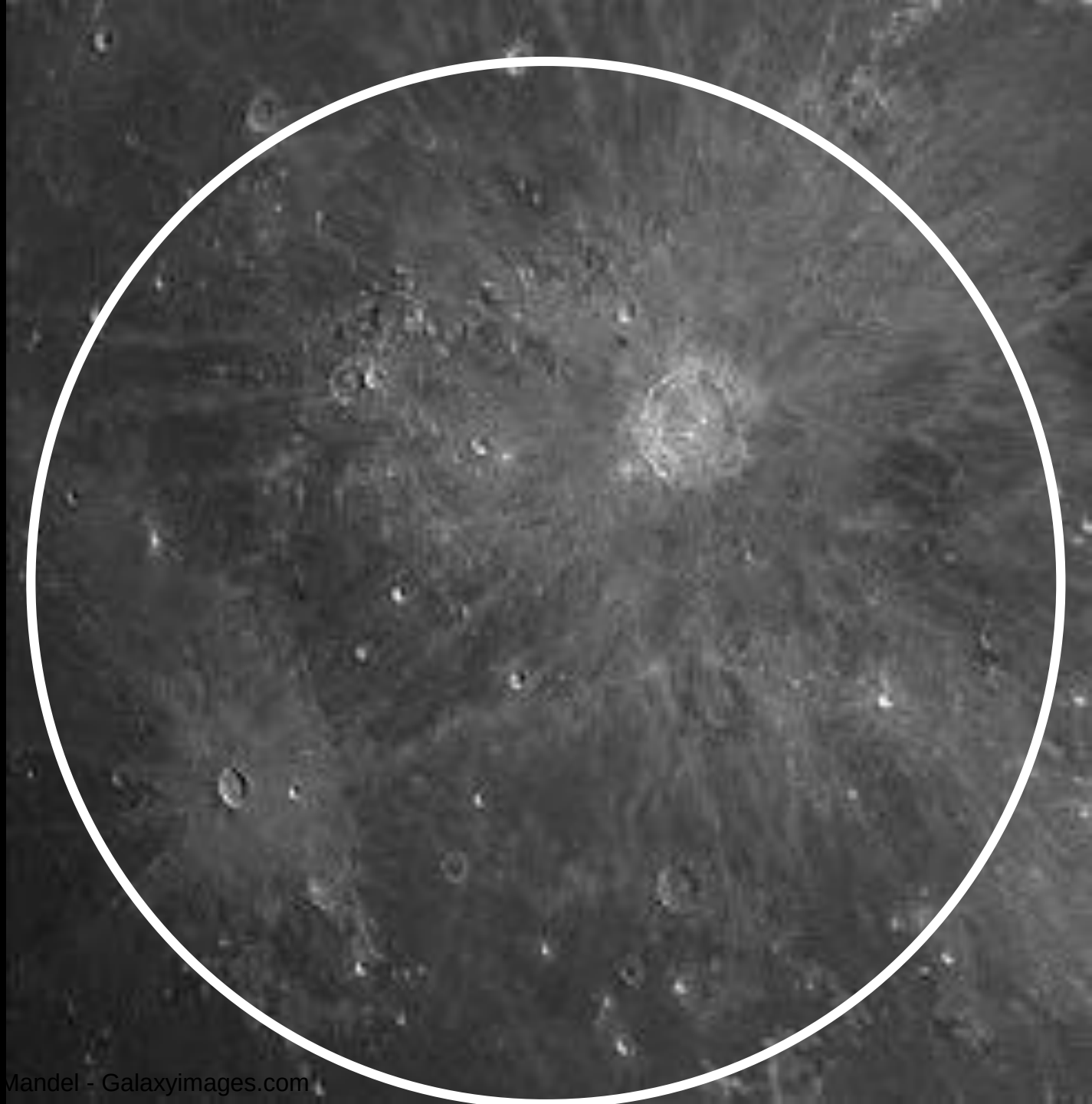
How powerful is your telescope?

3-inch aperture telescope magnified about 300 times.



7-inch aperture telescope magnified about 300 times.



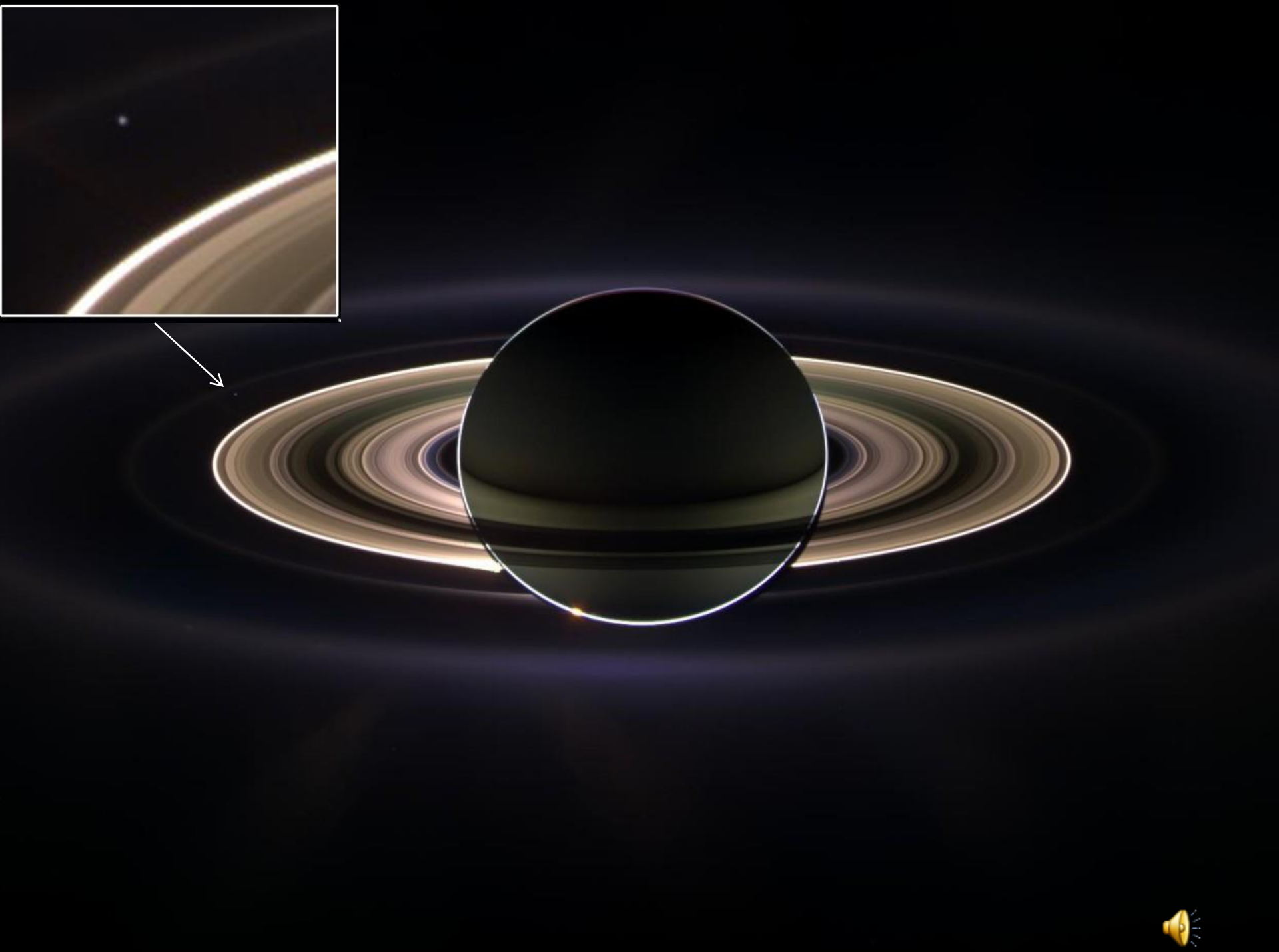
Mandel - Galaxyimages.com

Other Astronomy Resources in the Bay Area.

- SMCAS Meetings
- CSM Planetarium Shows
- Silicone Valley Astronomy Lectures
- NASA Ames Lectures
- Join Bayastro Yahoo group for lists of all talks and events in the Bay Area.

For the San Mateo County Astronomical Society

- SMCAS.net
  - Meetings Monthly
  - Star Parties
- College of San Mateo Public Outreach
- The annual Family Science and Astronomy Festival – October 8, 2017.
- AstronomerEd.com




Questions?