

IN THE EYEPIECE

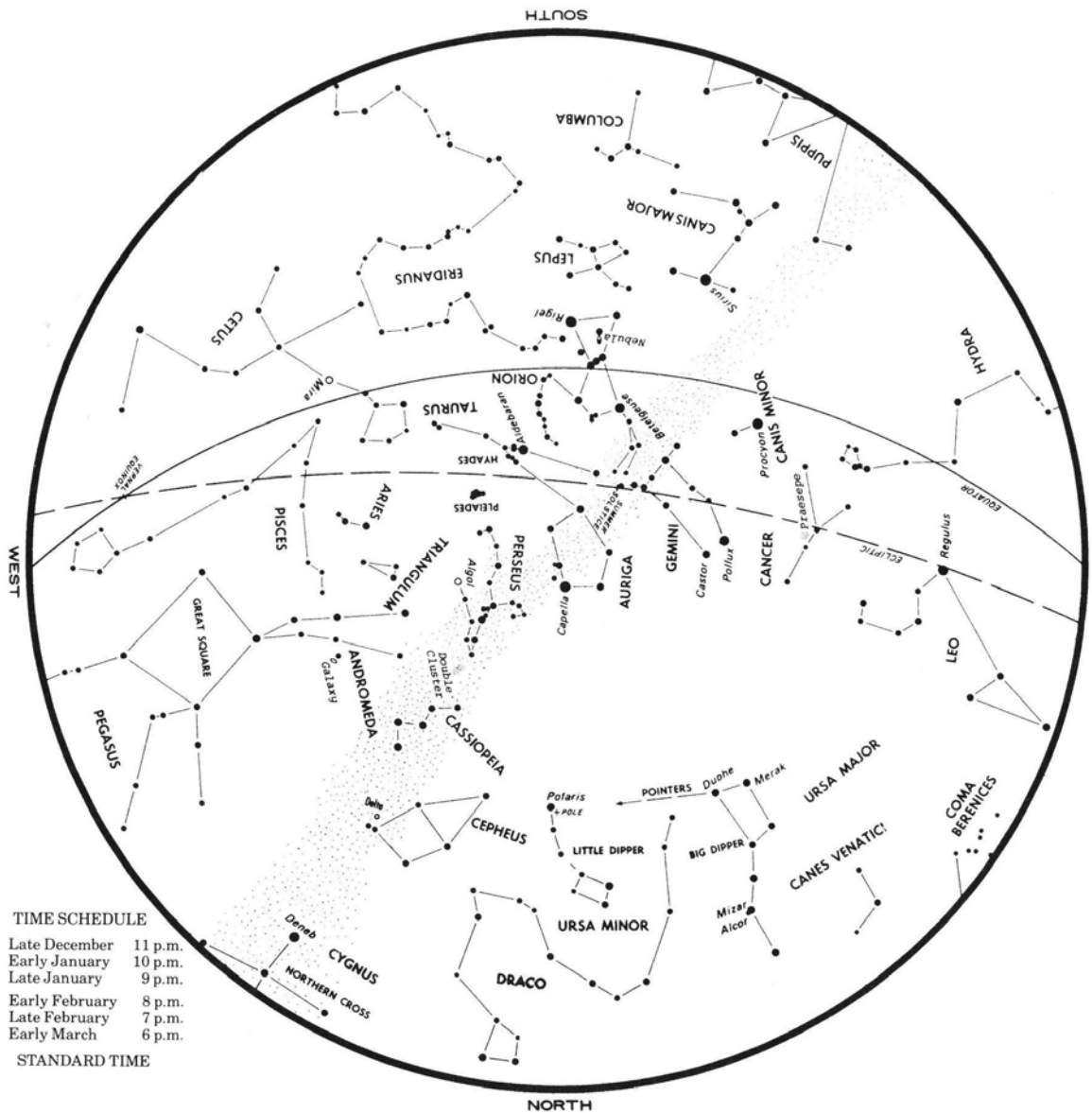


Compiled by David van Popering

WINTER

A list of Astronomical Seasonal Favorites

If you are an astronomy newbie, by all means start out with the Messier List (objects designated with an M such as M81). For more advanced observers, try some NGC objects. Most can be seen with small telescopes and even a few can be found with binoculars.



TIME SCHEDULE

Late December	11 p.m.
Early January	10 p.m.
Late January	9 p.m.
Early February	8 p.m.
Late February	7 p.m.
Early March	6 p.m.

STANDARD TIME

Planets !

Jupiter:

- 390 million miles from Earth (avg)
- 64 confirmed moons
- Between Cetus and Pisces

Saturn:

- 792 million miles from Earth (avg)
- 61 moons with secure orbits
- 200 moons/moonlets observed
- Will be rising after midnight in Jan and about 11 pm in Feb

Mars

- 140 million miles from Earth (avg)
- 2 moons
- Between Virgo and Leo

M33: Spiral Galaxy in Triangulum

- NGC 598
- Triangulum Galaxy
- 3 million light years distant
- Member of the Local Group of galaxies
- Approaching us at 53,687 miles per hour

M31: Spiral Galaxy in Andromeda

- About 2.3 Million Light Years distant
- Approaching us at 270,000 miles per hour

Herschel's Garnet Star in Cepheus

- 5,260 Light years distant
- A Red super giant star
- One of the largest and brightest in our Galaxy
- In the dying stage; fusing Helium into Carbon

Double Cluster in Perseus

- NGC 869 and NGC 884
- About 7,000 light-years from Earth
- Only a couple hundred light-years apart

M76: Planetary Nebula) in **Perseus**

- NGC 650
- Little Dumbbell Nebula
- 3,400 light years distant
- One of the faintest Messier Objects

M1: Crab Nebula in **Taurus**

- NGC 1952
- Supernova remnant observed in the year 1054 AD
- About 10 light years in diameter
- About 6,300 light years distant

M45: Pleiades in **Taurus**

- About 440 light years distant
- AKA The Seven Sisters or *Subaru* in Japan
- 6 or 7 stars are visible to the naked eye
- Nearly 500 faint stars belong to the Pleiades star cluster

Hyades: (Star Cluster) in **Taurus**

- Caldwell 41
- About 151 light years distant
- Nearest open cluster to us
- It was mentioned by Homer in 750 BC
- 5 daughters of Atlas and half-sisters to the Pleiades.

Capella: (STAR) brightest in **Auriga**

- Eleventh brightest star in the sky
- Capella is actually a bright close binary star system
- These two giant stars lie less than 62 million miles apart and orbit each other ever 104.02 days
- A tablet dating back to 2000 BC refers to Capella

M36: Open Cluster in **Auriga**

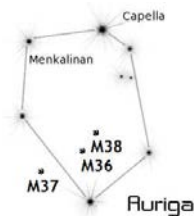
- NGC 1960
- 4,100 light years distant

M37: Open Cluster in **Auriga**

- NGC 2099
- 4,700 light years distant

M38: Open Cluster in **Auriga**

- NGC 1912
- 4,200 light years distant



M42 and M43: The **Orion Nebula**

- NGC 1976 and NGC 1982
- Star forming Nebula with Open Star Cluster
- About 1,500 light years distant
- It is the closest major star forming region to us

M78: Star-forming Nebula in **Orion**

- NGC 2068
- About 1,600 light years distant
- A little above the easternmost star of Orion's Belt

M79: Globular Cluster in **Lepus**

- NGC 1904
- A little over 40,000 light years distant
- It may be new to our Galaxy, perhaps from the Canis Major Dwarf galaxy

M50: Open Cluster in **Monoceros**

- NGC 2323
- 3,200 light years distant

Beta Monocerotis:

Triple Star System in **Monoceros**

- Discovered in 1781 by William Herschel
- 690 light years distant

M41: Open Cluster in **Canis Major**

- NGC 2287
- 2,300 light years distant
- Estimated age: 190 million years

NGC 2362: Tau **Canis Majoris** Open Cluster

- Original nebulosity still remains
- The brightest star here is Tau Canis Majoris - an eclipsing Super giant binary
- 5,000 light years distant

M093: Open Cluster in **Puppis**

- NGC 2447
- One of the last deep sky objects found by Messier
- 3,600 light years distant

M46 and M47: Open Clusters in **Puppis**

- NGC 2437 and NGC 2422
- M46 - 4,600 light years
- M47 - 1,600 light years distant
- Visible together in a 2-degree field

M81 & M82 in **Ursa Major**

- NGC 3031 & NGC 3034
- 150,000 light years apart
- 12 Million Light years distant

NGC 2841: Galaxy in the front legs of **Ursa Major**

- Noted for its large population of young blue stars
- 46 million light years distant

M35: Open Cluster in **Gemini**

- NGC 2168
- About 2,800 light years distant
- Look for NGC 2158 nearby, a Globular Cluster

Castor and Pollux: 2 brightest stars in **Gemini**

- Castor is a *sextuple star system*
- Pollux is a orange-red giant, 33 light years distant
- Castor is 52 light years distant.
- Pollux is the first star visible from Earth which is known to have an extra-solar planet in orbit.

M44: Beehive (Open) Cluster in **Cancer**

- NGC 2632
- Also called *Praesepe* - Latin for "manger"
- 577 light years distant
- Easily visible to the naked eye

M67: Open Cluster in **Cancer**

- NGC 2682
- 2,600 light years distant
- One of the oldest known open clusters

M048: Open Cluster in **Hydra**

- NGC 2548
- Can be a naked-eye object under good conditions
- 1,500 light years distant

Algebra: Double star in **Leo**

- About 125 light year distant
- Algebra lies on the lower neck-star of Leo
- One of the finest double stars in the sky

