

## Jan 12 Sky notes

View facing North 10:00pm on Jan 12th 2012 (80deg Field of View)

Rsun = Solar Radius , Msun = solar mass Lsun = Solar Luminosity



### Binary star Mizar (82 lt yrs away) :

Mizar – Alcor ----- wide binary star system – stars actually moving together (Ursa Major moving group, 1.1 lt yrs sep)

Mizar - telescopic binary ---- MizarA (A2/900K) and MizarB (A5/7500K) – 14" sep – 5000 yr period – magns (2.27/ 3.95)

MizarA is spectroscopic binary star (orbital period 20 days) / MizarB is spectroscopic binary star (orbital period 6 months)

View facing East 10:00pm on Jan 12th 2012 (60deg Field of View)



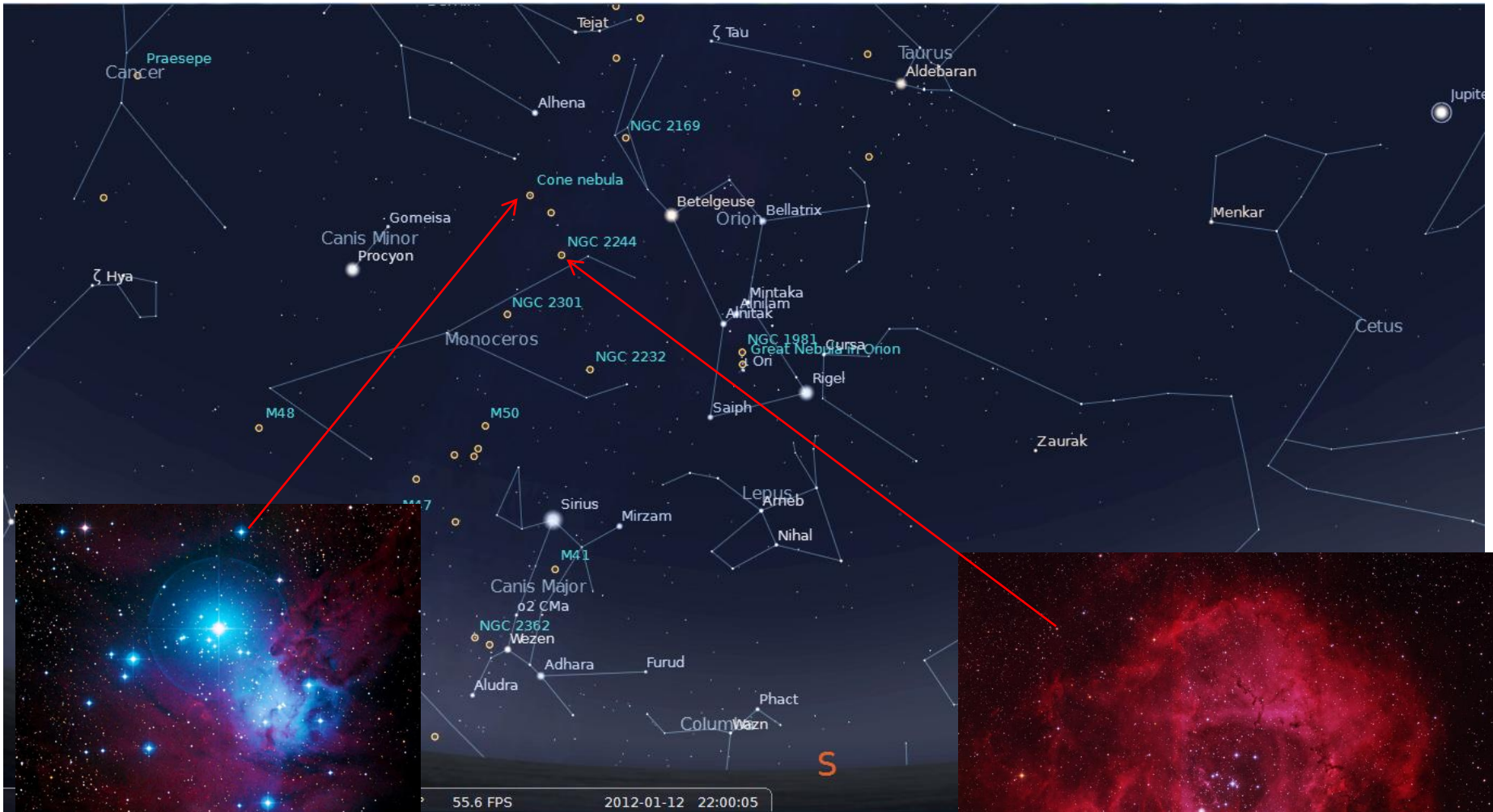
**Open Cluster M44 (Praesepe) 577 lt yrs (DSS2)**  
1.5x1.5 deg  
Mainly A-type stars(blue)  
Young cluster(44 million yrs old)

**Open cluster M67(2500 lt yrs)**  
0.75x0.75 deg  
Mainly K/M type stars(red giants)  
Old cluster (3.2 billion yrs old)





View facing South 9:00pm on Jan 12<sup>th</sup> 2012 (80deg Field of View)



**Christmas tree cluster(NGC2264)**

**-Cone nebula (2600 lt yrs away)**

**Emission nebula illuminated by bright star**

**S Monocerotis**

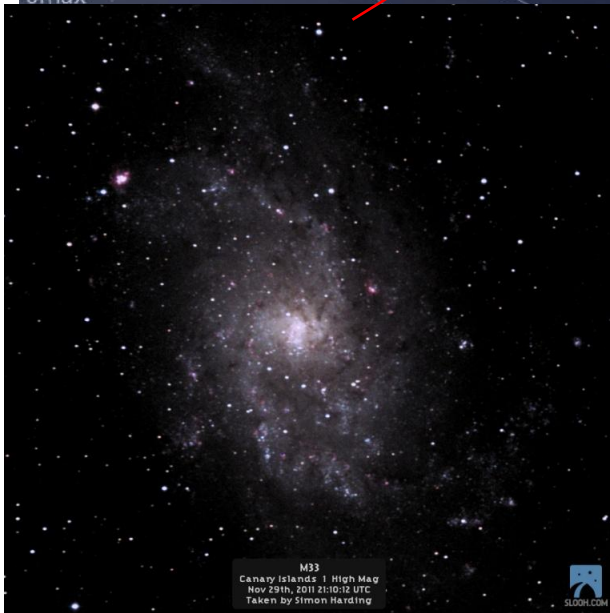
**Dark nebula (Cone) at bottom**

**Rosette nebula(NGC2237)**

**Surrounding open cluster NGC2244**

**(5200 lt yrs away)**





**Triangulum galaxy (M33)**  
**3 million lt yrs away**

**Andromeda galaxy (M31)**  
**2.54 million lt yrs away**  
**(+ satellite galaxies M32/M110)**



# Lunar Maria(Jan 2012)

1<sup>st</sup> quarter(Jan 1st) –full(Jan9th) - last quarter(Jan 16<sup>h</sup>) - full (Jan 22nd)

## Mare Imbrium - 1200 km impact (megacrater) basin

### Mare Imbrium features:

Surrounded by mountain ranges :

**Apennines**(600km long / 4-5 km height)

**Caucasus Mts**(3- 4km height)

**Carpathian Mts**

**Alps Mts**

**Jura Mts**

Isolated mountain peaks :

**Pico**(2.4km high)

**Piton**(2.5km high)

Impact craters on mare lava :

**Plato**(101km – smooth floor)

**Archimedes**(83km /1.6km deep – flat floor)

**Aristillus** (55km /3.6km deep- terraced walls)

**Autolycus**(39km / 3.4km deep- debris strewn floor)

**Sinus Iridium**(260km impact crater)

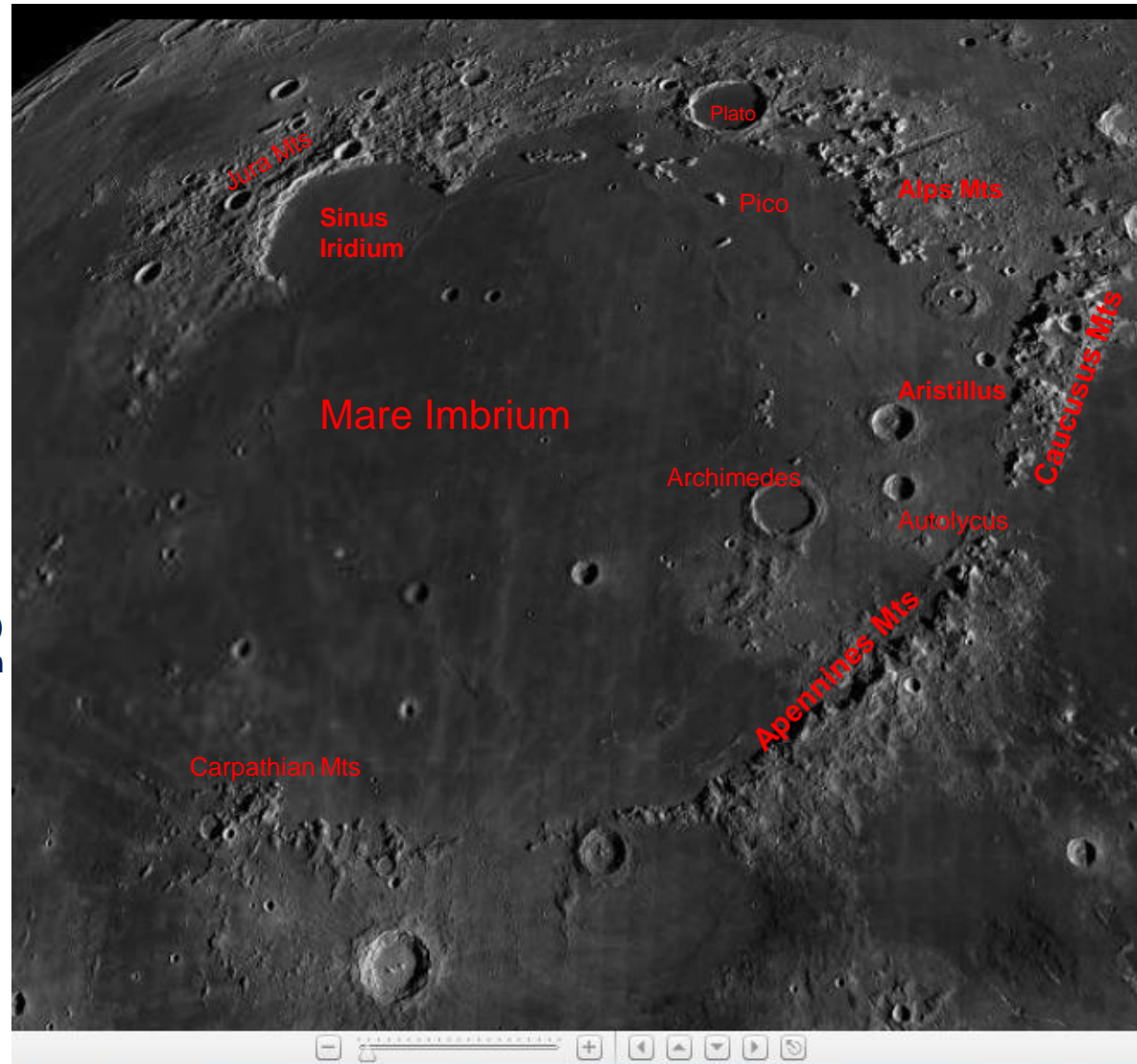
Wrinkle ridges :

**Low ridges** on Mare Imbrium floor

**Folds** created by compression of Mare lava

Only 100- 300m high above Mare floor

Best seen near lunar terminator



## Solar System Sky notes (Jan 2012)

### Mercury

best visibility –Jan 1<sup>st</sup> (5 deg altitude) mag -0.3 - low in southeast before dawn

### Venus

best visibility –Jan 31<sup>st</sup> magn -3.9 (shining like a beacon in southwest after sunset)

### Mars

best visibility –Jan 31 magn -0.5 (in Leo - diameter 11" – N polar cap tilted towards Earth)

### Jupiter

Visible all night ( see sky map) – magn -2.4 , 40" size – elongated spots in NEB



Dec 14<sup>th</sup> 2011 (22:17pm)



Dec 28<sup>th</sup> 2011(23:27pm)

(SLOOH T2 images)  
14" SCT

### Saturn

Rises at midnight (end of month) - Rings tilted by 15deg Magn +0.7 Size 40"

Jan 31<sup>st</sup>  
(after midnight)

