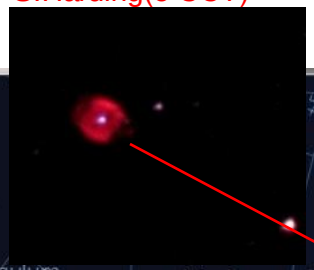
Mar 11 Sky notes

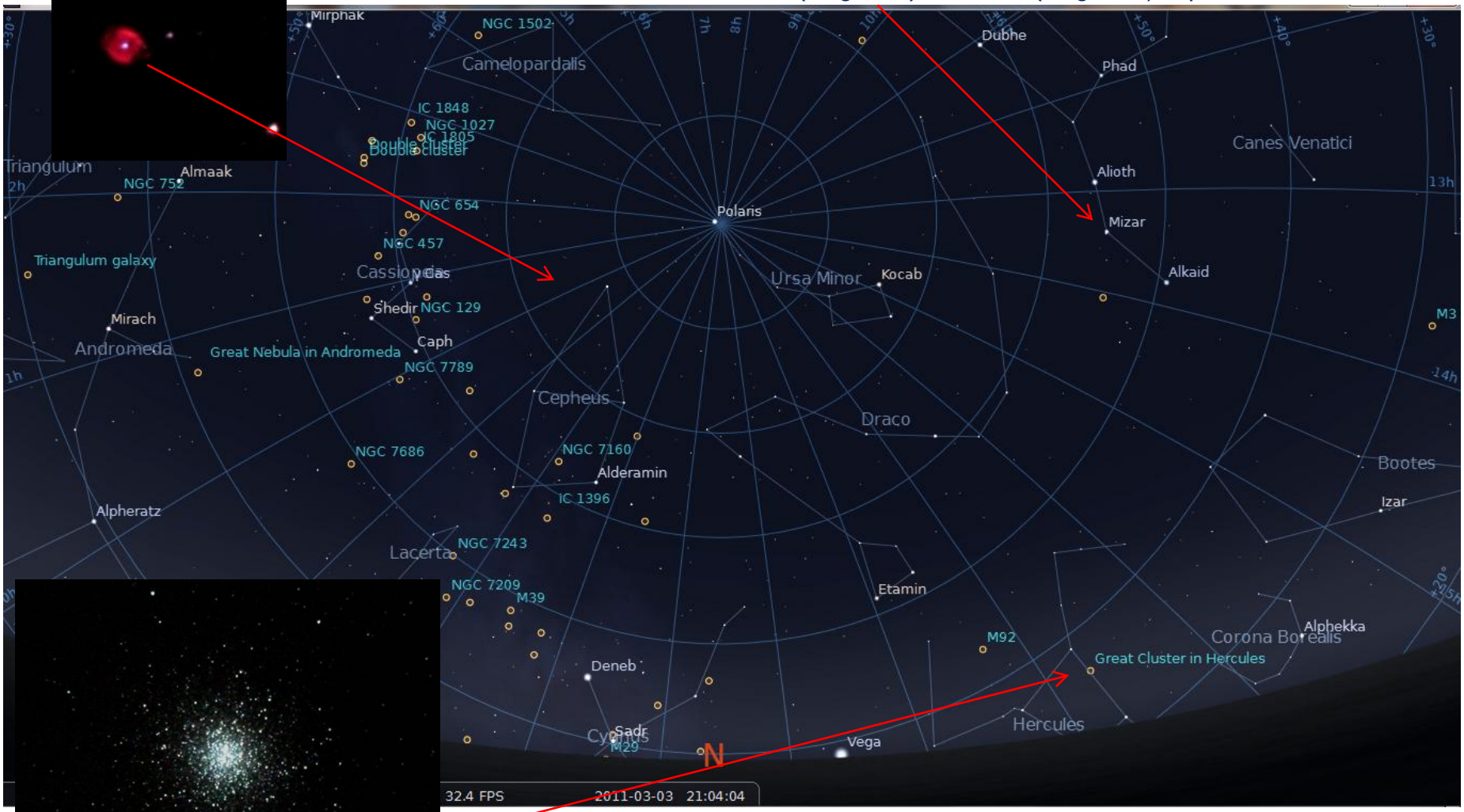
View facing North 09:00pm on Mar 3rd 2011 (70deg Field of View)

S.Harding(8"SCT)



Bow Tie Planetary Nebula(NGC40)
Dist 3500lyr , central star (50,000K)

Mizar – Alcor Binary star system (12' sep)
Mizar A(magn 2.2) –Mizar B (magn 3.9) sep 14" – both Class A stars



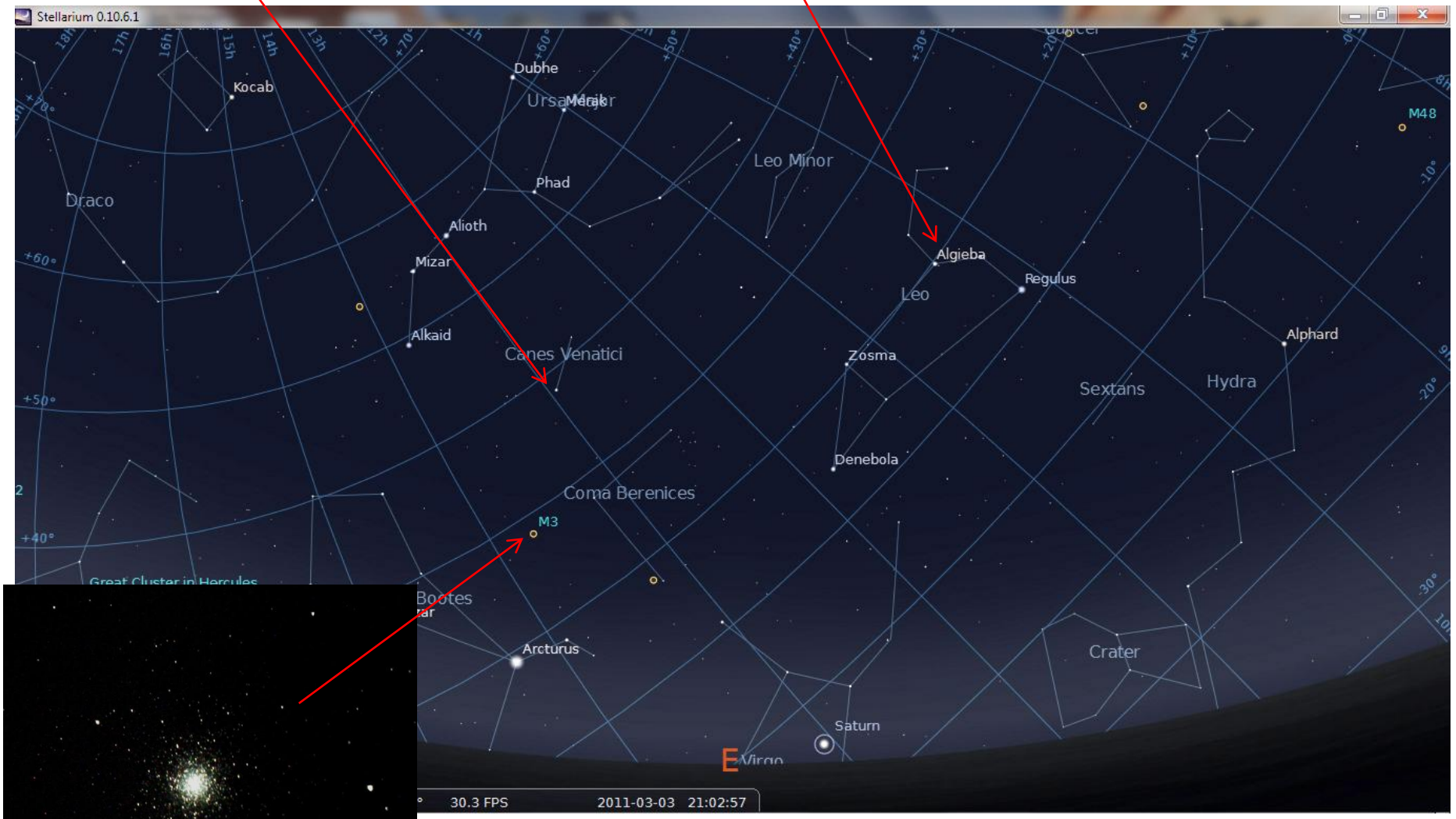
M13 (Great Globular Cluster) – Hercules – 25,1000 light years away
100,000 stars in 134 lt yrs diameter - many high luminosity red giant stars

S.Harding(8"SCT)

View facing East 09:00pm on Mar 3rd 2011 (68deg Field of View)

Cor Caroli (binary star) alpha Can Ven
Magn 2.9/5.5 (sep 19") 110 light yrs away

Gamma Leonis (Algieba) – binary pair (4" sep magn 2.2/ 3.5) 126 light yrs away
Gamma1- Class K(4470K - 180*Lsun) , Gamma2 – ClassG(4980K- 50*Lsun)

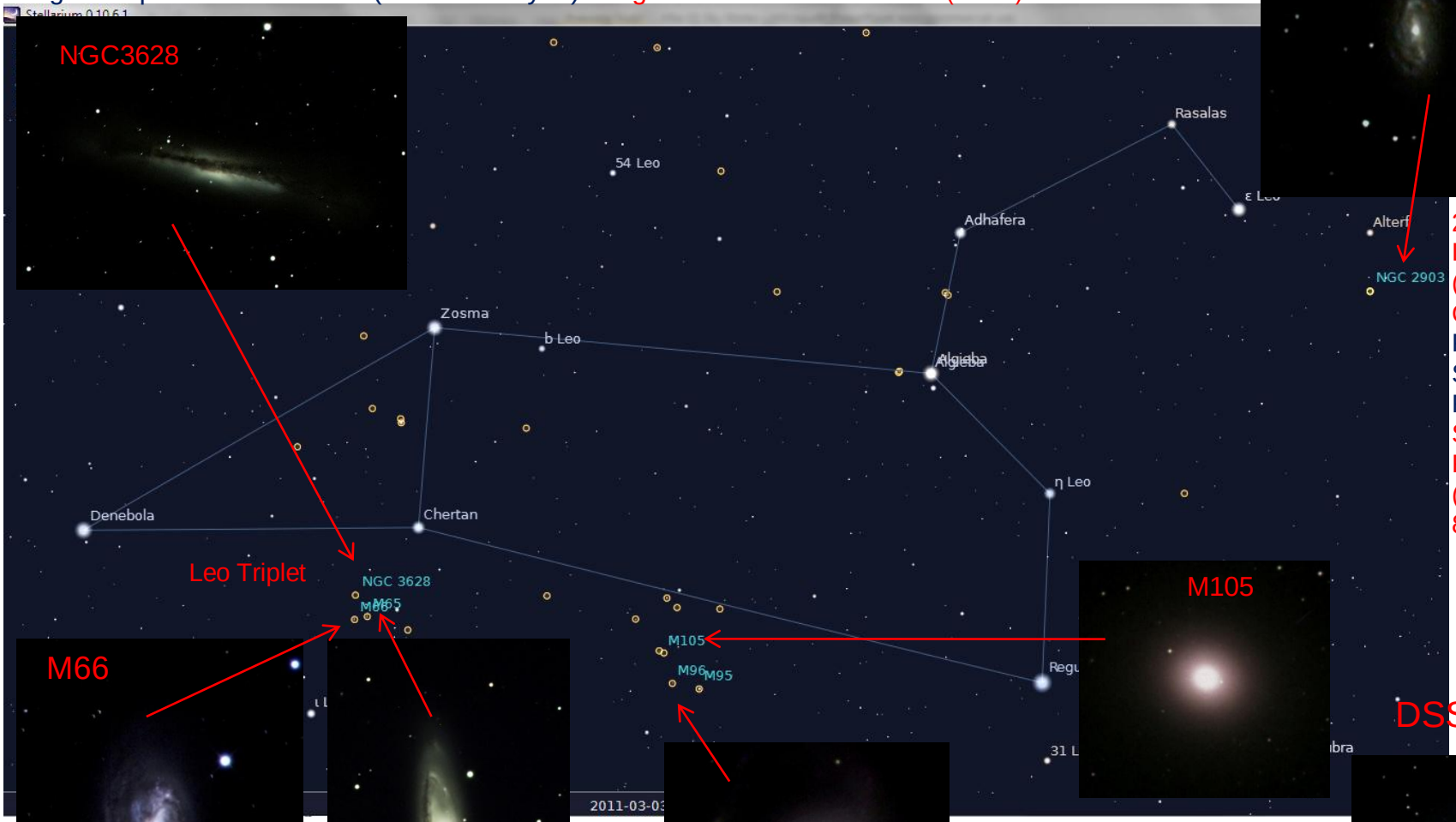


S.Harding(8" SCT)

Globular Cluster M3 – Canes Venatici – 500,000 stars @ 33,9000 lt yrs
One of the densest globulars – 50% of mass within central 22 light years
Large number of Variable stars (RR Lyrae – pulsating variables)

March 2011 Constellation of month(1) : Leo

edge on spiral with dust lane (35 million lt yrs) – Lightbuckets 24" Newtonian(L001)



25million Lt yrs away (barred spiral Galaxy-Prominent Star forming Ring-large Supergiant HII Regions (S.Harding 8"SCT)

DSS images)

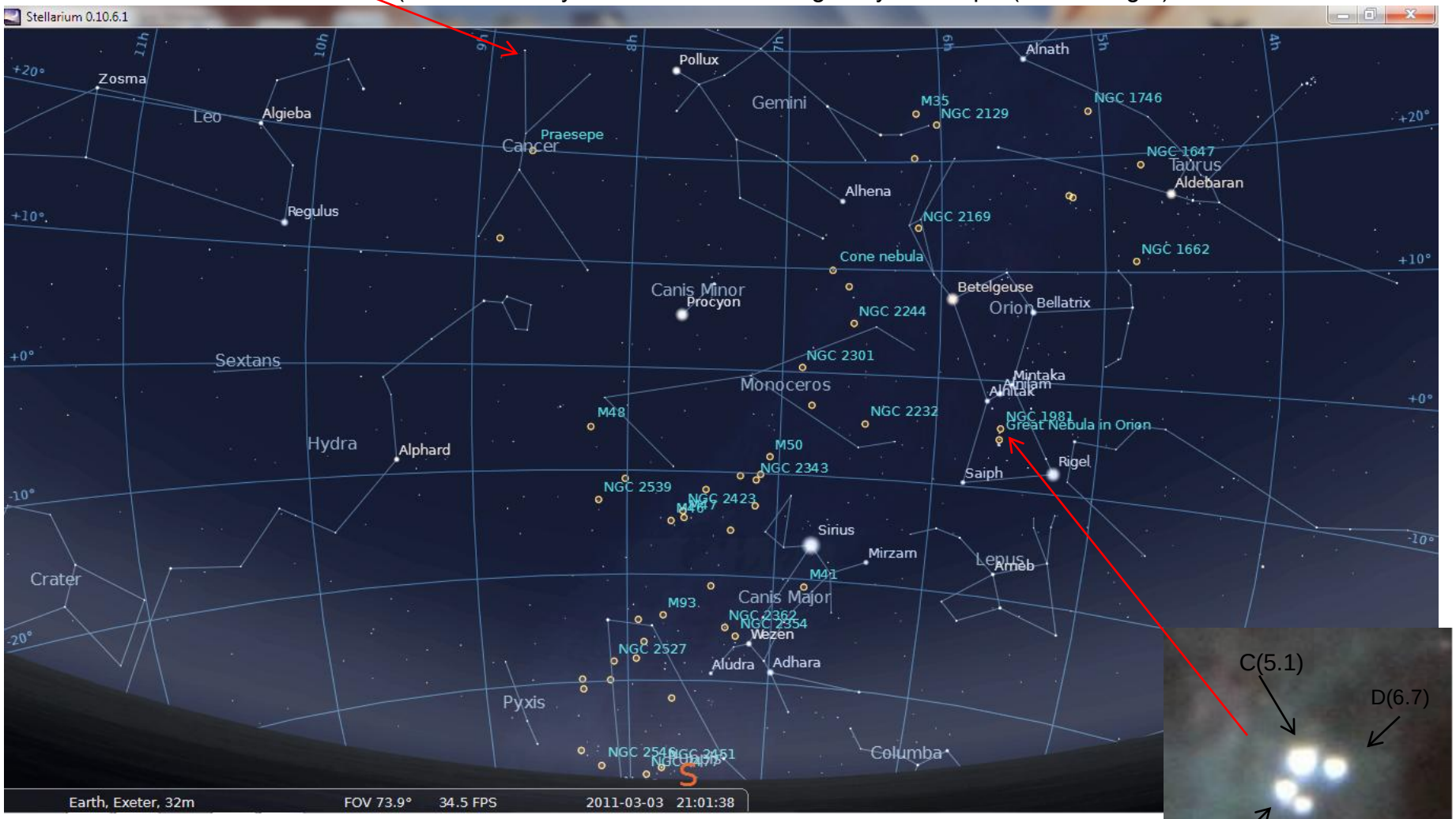
36million lt yrs away
95,000 lt yrs across
(Lightbuckets(L001)

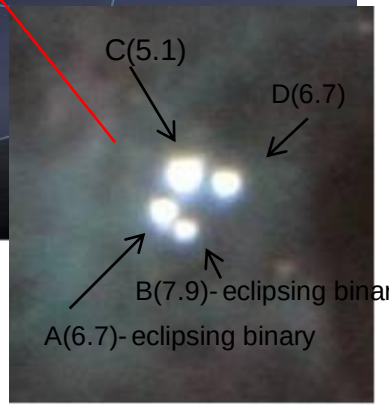
almost edge-on spiral (low on dust)
(Lightbuckets(L001)

Leo I group(37 million lt yrs)
Barred spiral (M95)
Spiral (M96)
Elliptical(M105)
Important Grouping :
Recently used to give
More accurate measurement
Of Hubble constant

View facing South 09:00pm on Mar 3rd 2011 (68deg Field of View)

Iota Cancri (binary star in Cancer)- distance (333 light years) sep(30" magn (4.0(yellow)/6.0(blue))
(beautiful binary star to observe through any telescope (2.5" or larger)





The Trapezium Star Cluster at the centre of the Orion Nebula :

Most famous Multiple star system - a very young star cluster

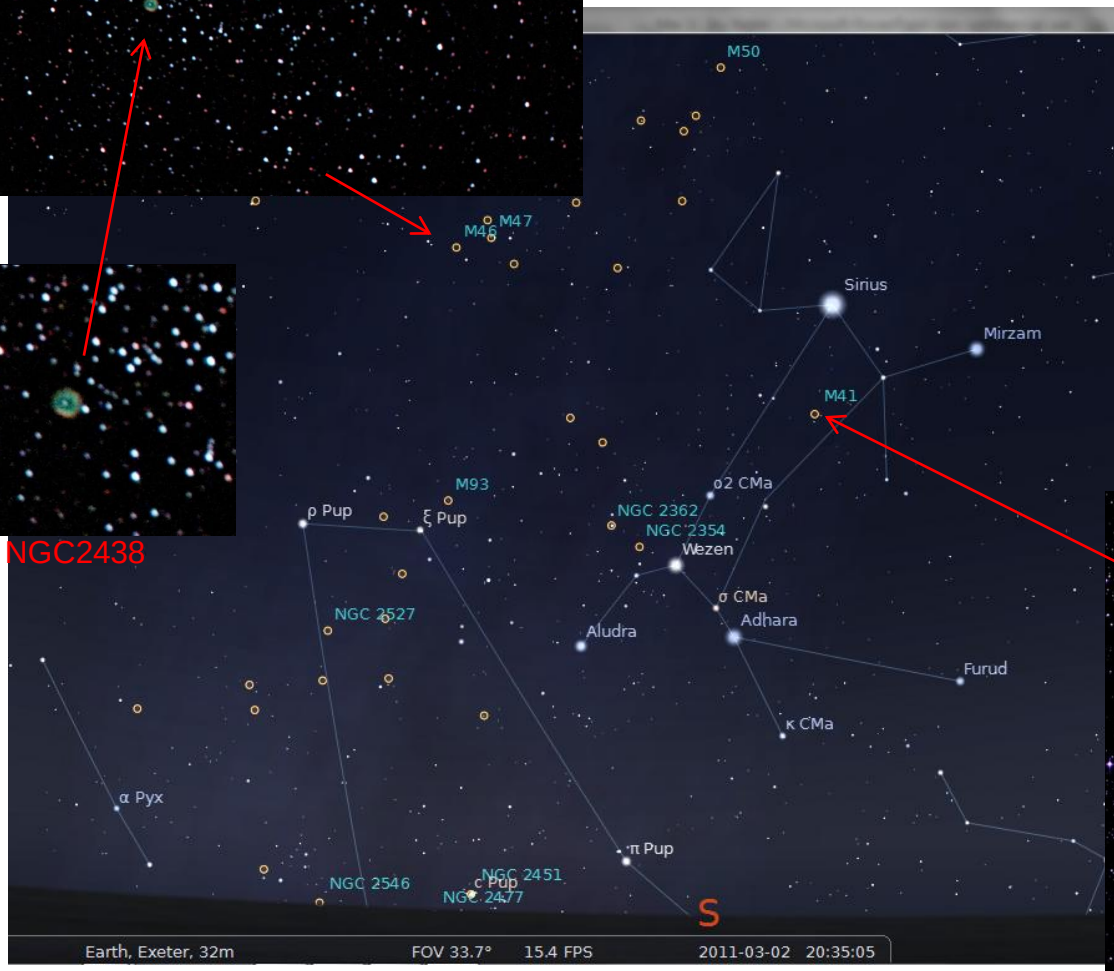
(separations :A-B(8.7"),B-D(19.2"),D-C(13") C-A (13")

Associated with Orion molecular cloud--Hot blue(OB) stars & part of a cluster of 300 stars

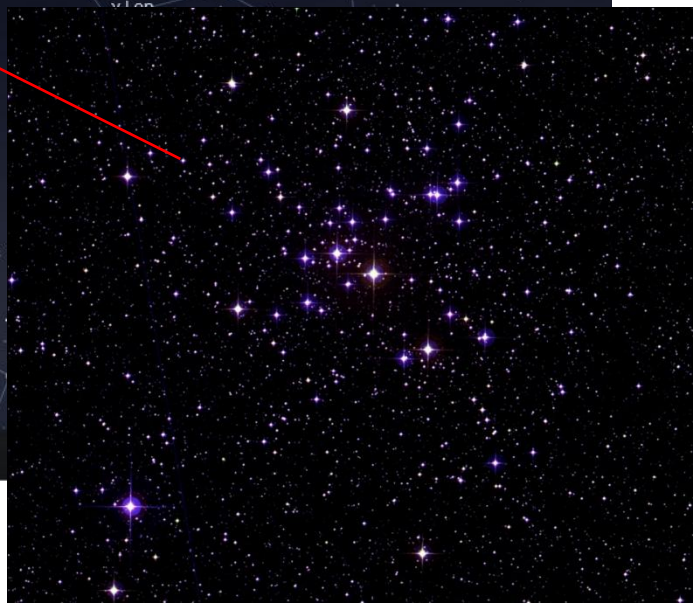
Cluster is in front of molecular cloud-- Cavity created by radiation from Trapezium

March 2011 Constellation of month(2) : Canis Major

M46 open cluster – distance 5400 light years
About 500 stars within 30 light years
Hottest stars (magn 9) – blue-white A-type giants
Planetary Nebula (NGC2438) is only 2900 light years away – in front of M46
(both moving away from Earth at different speeds) (S.Harding 10"SN)



M41 (DSS image)



Open Cluster M41 – 2300 light years from Earth
Over 30 blue-white A-type giants

Almost 100 stars in total(30 light yrs) – central red K type giant (700*Lsun)

View facing West 09:00pm on Mar 3rd 2011 (68deg Field of View)

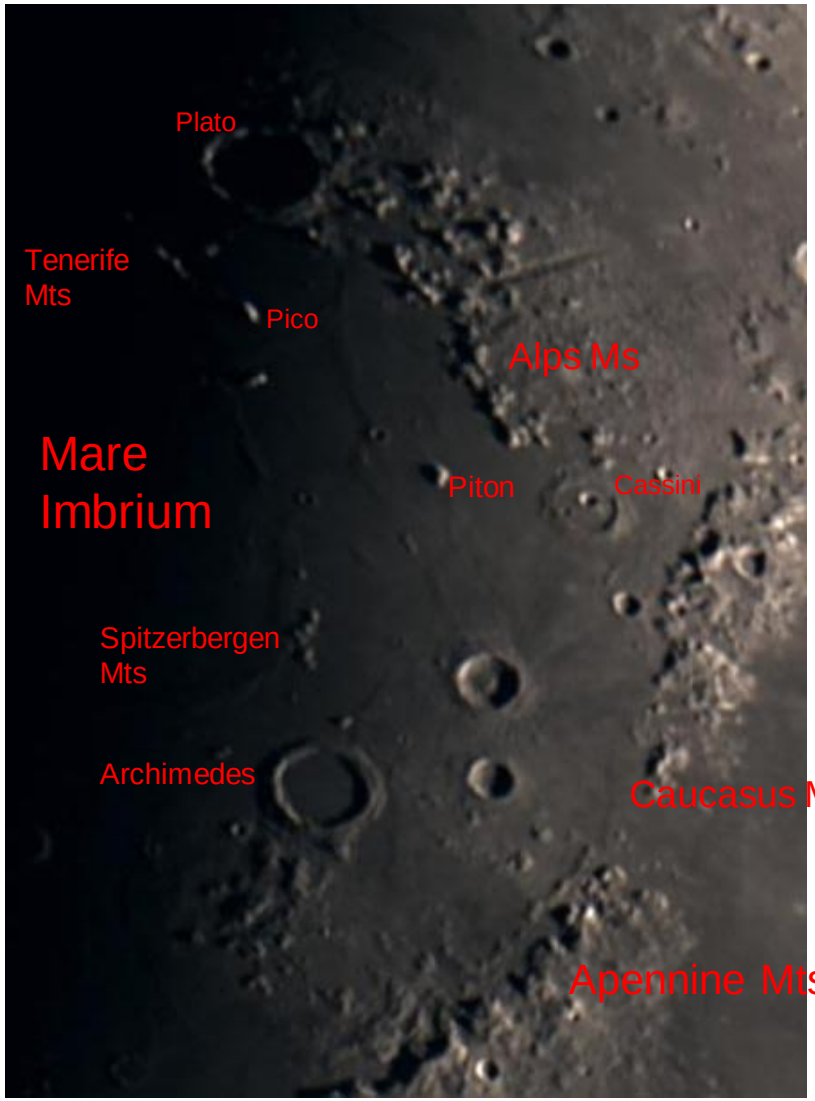
Almaak (Gamma Andromedae) – Binary Star – gamma1(yellow –magn 2.3) ,gamma2(blue-5.0), sep 10” ,distance 350 lt yrs
Gamma1 is K type giant (2000*Lsun / 4500K) , Gamma2 is triple star system

Gamma Arietis (Sheratan) – binary star - gamma1(white A-type star (magn +4.7) , gamma2 (white A- type star (magn +4.8) separation 8 “ (distance 150 light years / orbital period 5000 years)

Moon

New moon (Mar 4th) , 1st quarter(Mar 12th) , Full moon (Mar 19th) , Last Quarter (Mar 26th)

Lunar mountains & ranges



S. Harding(8" SCT)

Mare Imbrium –bounded by high mountains :

Apennines Mts– 600km long , steep scarps 5km high above Mare surface

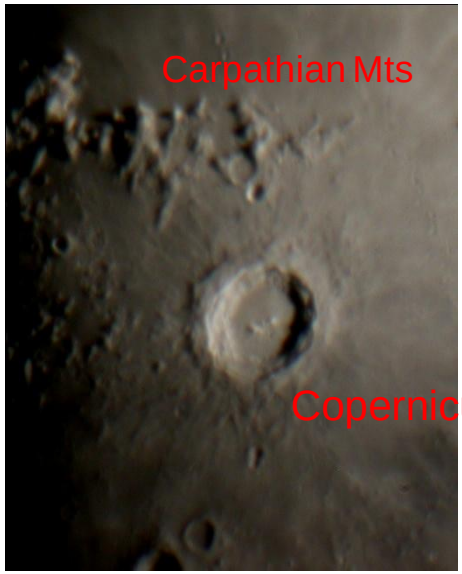
Caucasus Mts – old battered massifs 3-4 km above plain

Alps Mts –short (250km) line of peaks (1.8-3.5 km high)

Spitzbergen Mts – 60km range(1.5km high)

Piton/ Pico – isolated peaks – 2.4km above Mare surface

Mountain Peaks – Formed during Mare Imbrium impact event



Solar System Sky notes (Mar 2011)

Mercury

Low in southwest after sunset (2nd week of March) – best evening apparition for 2011
Magnitude -1.0 (disk only 6.2” wide) – see below

Venus

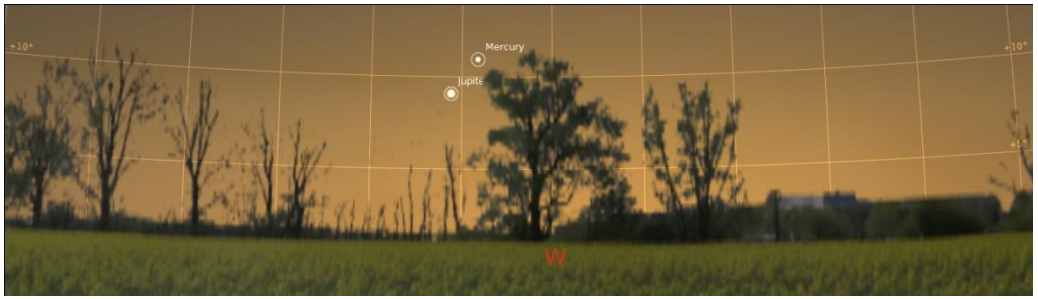
Bright “Morning star” – low in east-southeast before dawn – rising about 2 hours before dawn
Magn -4.0 (70 – 80% phase) diameter 16”

Mars

Not visible this month

Jupiter

Sets at about 8pm (Mar 1st) , very close to Mercury on Mar 16th, ,invisible by end of month :



Stellarium simulation
(Mar 16th 18:50pm)

Magn -2.1 , disc width 33”

Saturn

Rises by 9:20pm (Mar 1st) and by 8:00pm at the end of the month
-Reaches maximum brightness(mag +0.4) and diameter (19.3”) in late March
-

Stellarium simulation
Mar 3rd 2011