

Apr 12 Sky notes

View facing North 10:30pm on Apr 12th 2012 (80deg Field of View)

Capella - third brightest star in the northern hemisphere – 42 lt yrs away (magn +0.9)

Actually 4 star system (2 binary pairs) : 2 G-type stars(10Rsun) – 2 cool red dwarfs (10,000 AU sep)



Alderamin (Alpha Cephei) – class A star (7750K) – 17* L_{sun} / 2.3* R_{sun} – 49 lt yrs away
Will be Pole star in 7500AD due to precession of Earth`s spin axis

View facing East 10:30pm on Apr12th 2012 (68deg Field of View)

Arcturus- 4th brightest star (magn -0.04 K type orange giant star)
36 lt yrs distance (25*Rsun / 170 * Lsun)

Globular cluster M3
33k lt yrs away
500,000 stars



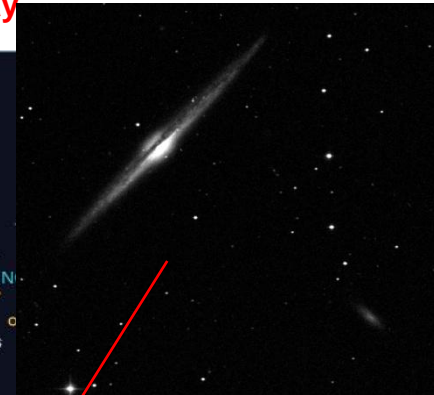
Vega – 2nd brightest northern hemisphere star (magn+0.03) 2*Rsun / 37*Lsun (9602K) 26lt yrs away
circumstellar disk of dust around star – generated by collisions of objects in orbit around star
Will be Pole star in 12,700 AD due to precession of Earth`s spin axis

April 2012 Feature of month(1) : Galaxies in Coma Berenices / Venatici



NGC4631 – edge on spiral galaxy
Central starburst region - many supernovae
30 million lt yrs distance

NGC4565 – classic edge on spiral galaxy
Central bulge/prominent dust lane in spiral arms
42 million lt yrs away



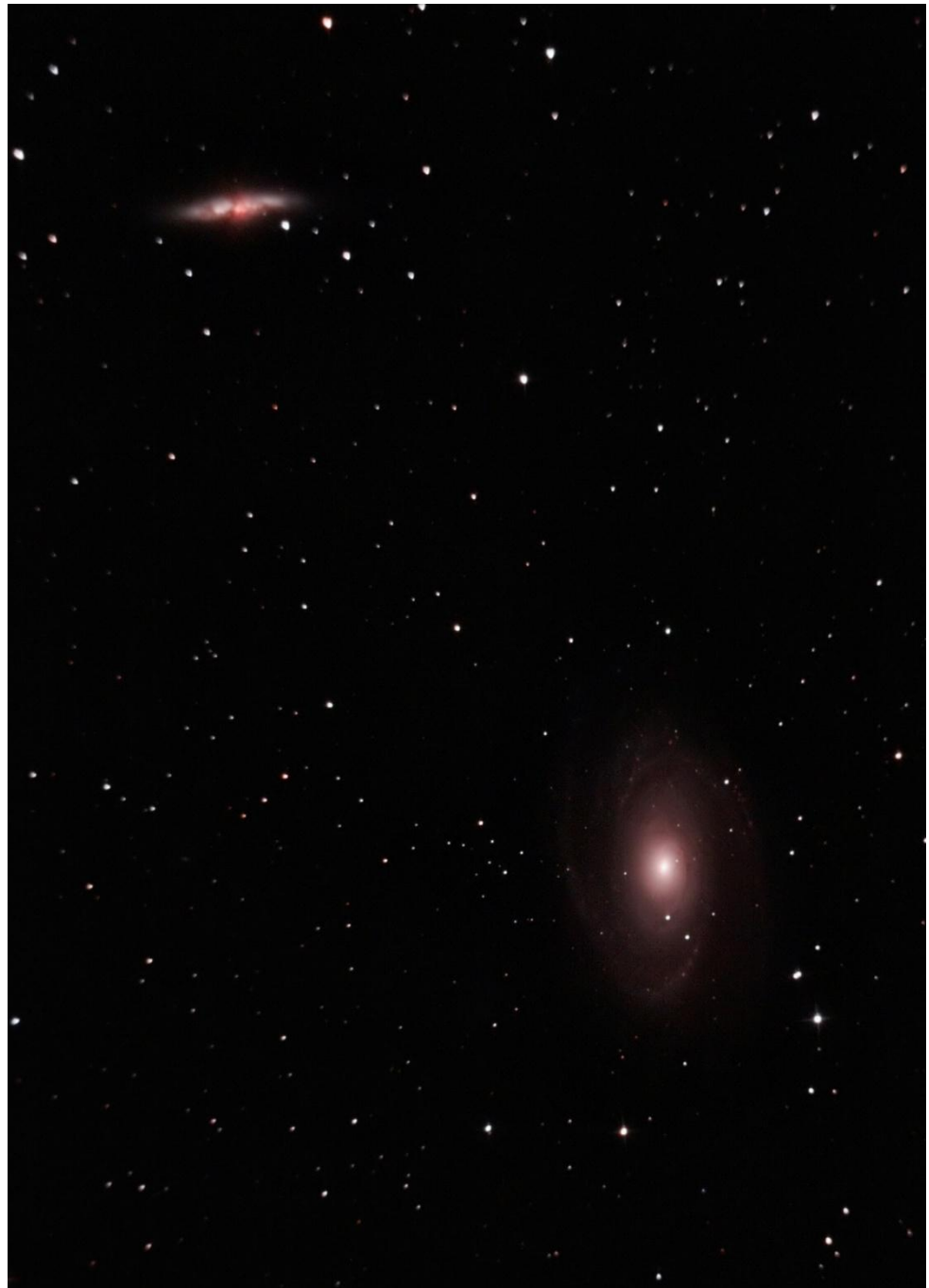
Black eye galaxy M64
Prominent dark / dusty region
Result of a merger of 2 interacting galaxies – intense star formation
24 million light yrs away



Bodes Galaxies
(M81 / M82)

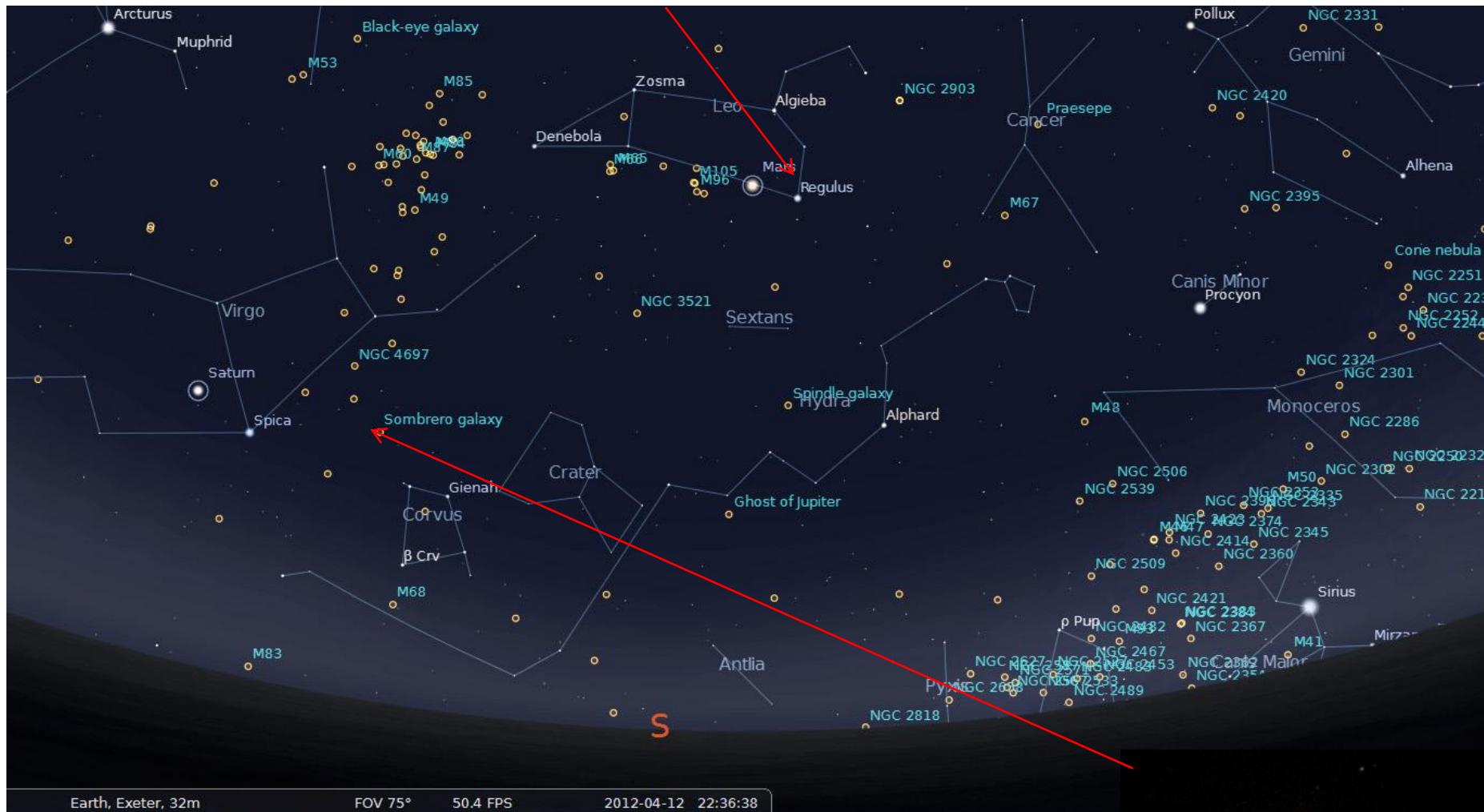
12 million lt yrs distance

S.Harding (10" astrograph)



View facing South 10:30pm on Apr12th 2012 (68deg Field of View)

Regulus : brightest star in Leo (288*Lsun / 12,000K / 77 lt yrs distance)
close to Mars in April



Earth, Exeter, 32m FOV 75° 50.4 FPS 2012-04-12 22:36:38

Sombrero Galaxy (M104) :unbarred spiral galaxy
Large central bulge / prominent dark dust lane
28 million lt yrs distance

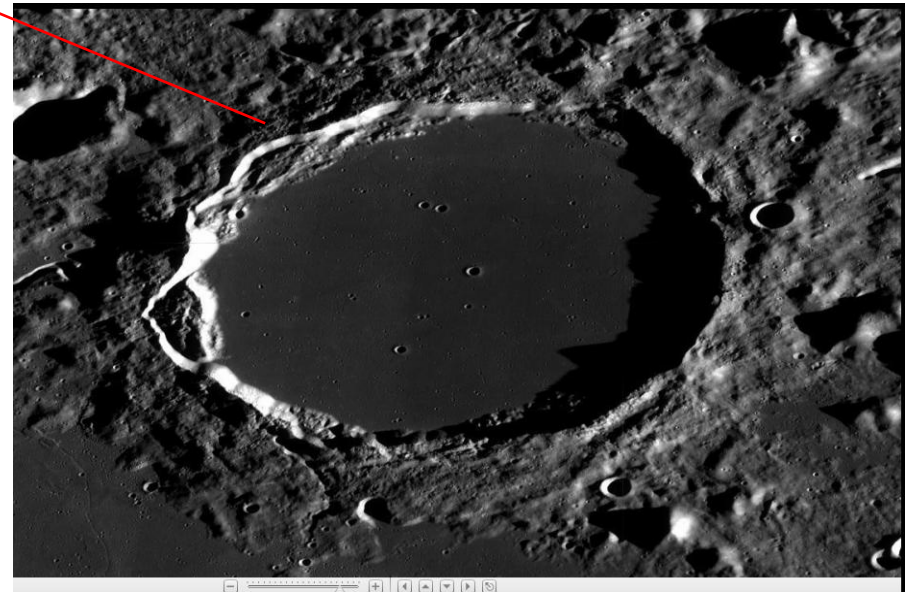
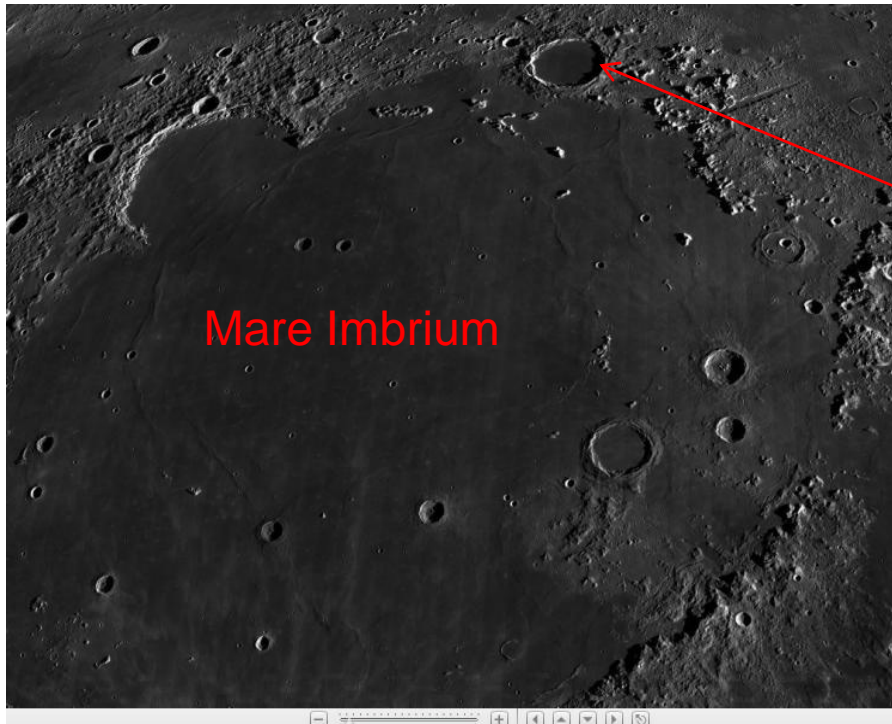




5 min Wide field exposure - showing Aldebaran / Hyades , M45 , NGC1499 (California nebula) and Taurus Molecular Cloud (TMC) – dark nebula

Moon

Full moon(Apr 7th) , Last Quarter (Apr 14th) , New moon (Apr 20th) , first Quarter (Apr 29th)



Plato Crater – lava filled crater
(north of Mare Imbrium)
3.8 billion yrs old
Extremely flat smooth floor - no central peak

Solar System Sky notes (Apr 2012)

Mercury

Rises an hour before sunrise - low in east before sunrise (magn +0.7 10" diam)

Venus

Prominently visible in western sky after sunset (setting 4 hours after sunset) – near Jupiter last month :



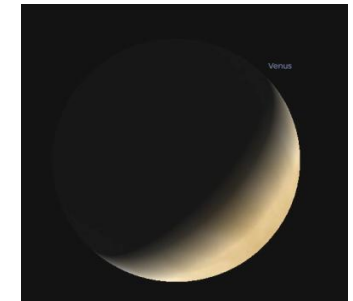
Mar 13th



Apr 1st



Apr 15th



Apr 30th

Mars

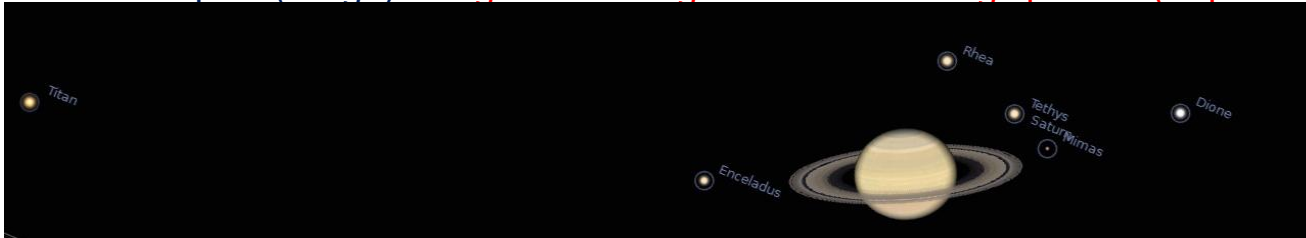
In Leo close to Regulus – magnitude -0.7 to -0.1 (size 12 to 10")

Jupiter

Close to Venus in western twilight (sets only ¾ hour after sun by end of month)

Saturn

Close to Spica (Virgo) -Ring tilt of 15deg this month – Ring span 44"(equatorial width of 19*) – magn +0.5



Stellarium simulation (Apr 12th 2012)



Saturn (Mar14th) SLOOH T2 (14" SCT)