

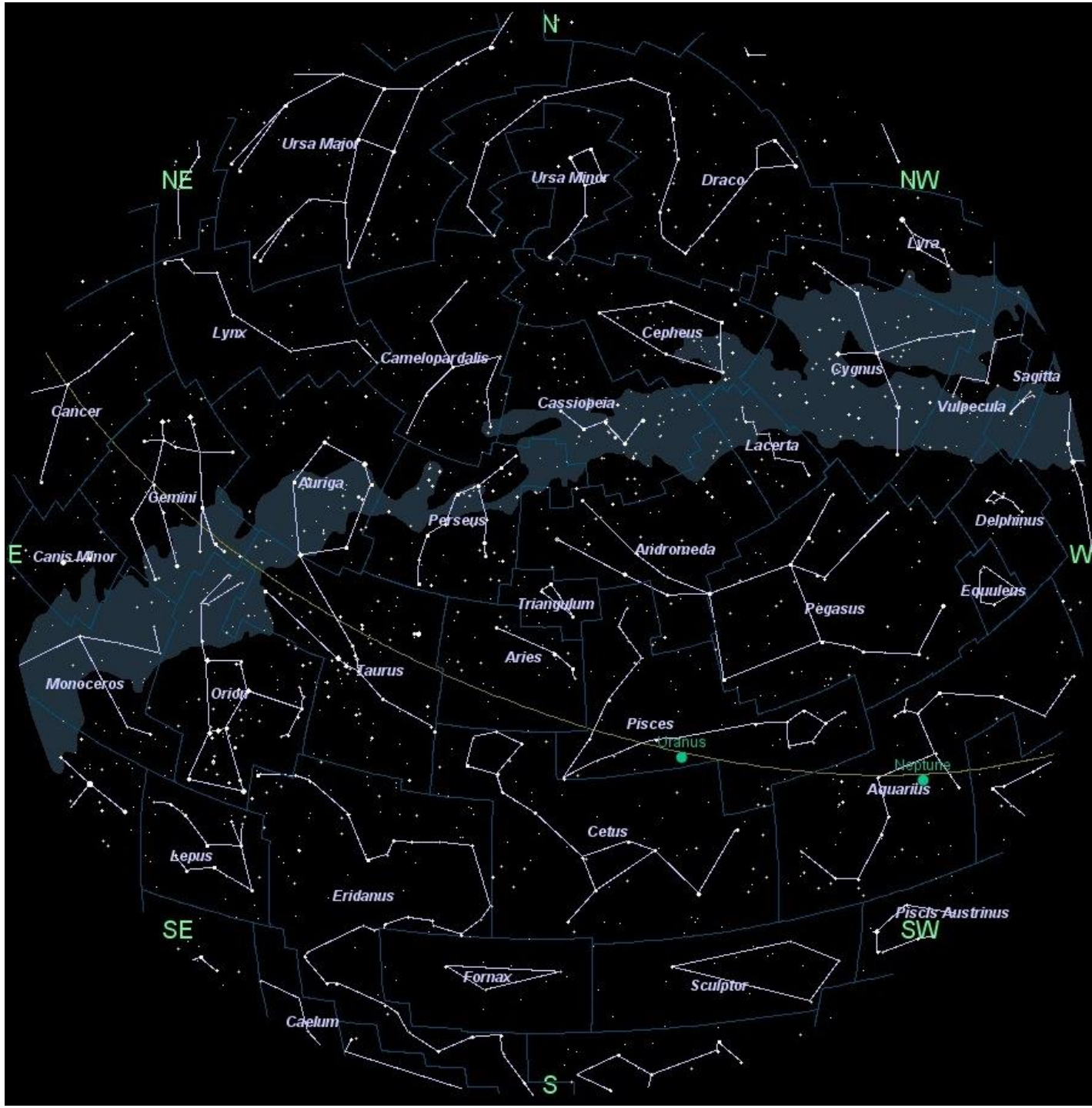


What's Up

November 2014

What's Up

Constellations
as at 10.30pm on the
15th of the month.



What's Up Planets

Planet	Rises	Culm	Sets	Comments
Mercury	06:03	10:55	15:47	Not a good month for Mercury. Best chance to spot it is early in the month just before sunrise
Venus	07:52	12:08	16:24	Having just passed superior solar conjunction Venus is too close to the sun to observe this month
Mars	11:45	15:29	19:14	Visible in the south west for a couple of hours after sunset.
Jupiter	22:42	06:02	13:18	Rising before 11pm Jupiter gets high enough to observe shortly after midnight .
Saturn	07:30	11:58	16:27	Moving towards solar conjunction this month Saturn will not be observable this month
Uranus	14:50	21:11	03:37	Well placed for observation this month. Visible for much of the night.
Neptune	13:44	18:50	23:56	Setting before midnight Neptune is getting more challenging in November but is still readily observable in the earlier part of the night.



What's Up

Smaller Bodies

Dwarf Planets

Asteroids

Astraea mag 7 in Pisces

Hebe mag 7.4 in Eridanus at opposition on the 17th

Hygiea mag 11 in Gemini

Victoria mag 11 in Aquarius

Comets

C/2014 E2 Jacques Mag 12.8 in Aquila

Comet C/2014 R1 (Borisov) Mag 11.6 in Virgo



What's Up

Events this month

9 th -27 th November	Visible ISS Passes
3 rd November	Moon at perigee
6 th November	Full Moon
12 th November	Taurid Meteor Shower Peak ZHR 10
15 th November	Moon at Apogee. The Curtiss Cross is predicted to occur at 20:43
17 th November	Asteroid 6 Hebe at opposition
18 th November	Leonid Meteor Shower Peak ZHR 20
21 st November	GAS Observing Evening
27 th November	Moon at Perigee. The Lunar X is predicted to occur at 09:14
22 nd November	New Moon

What's Up

Meteor Showers

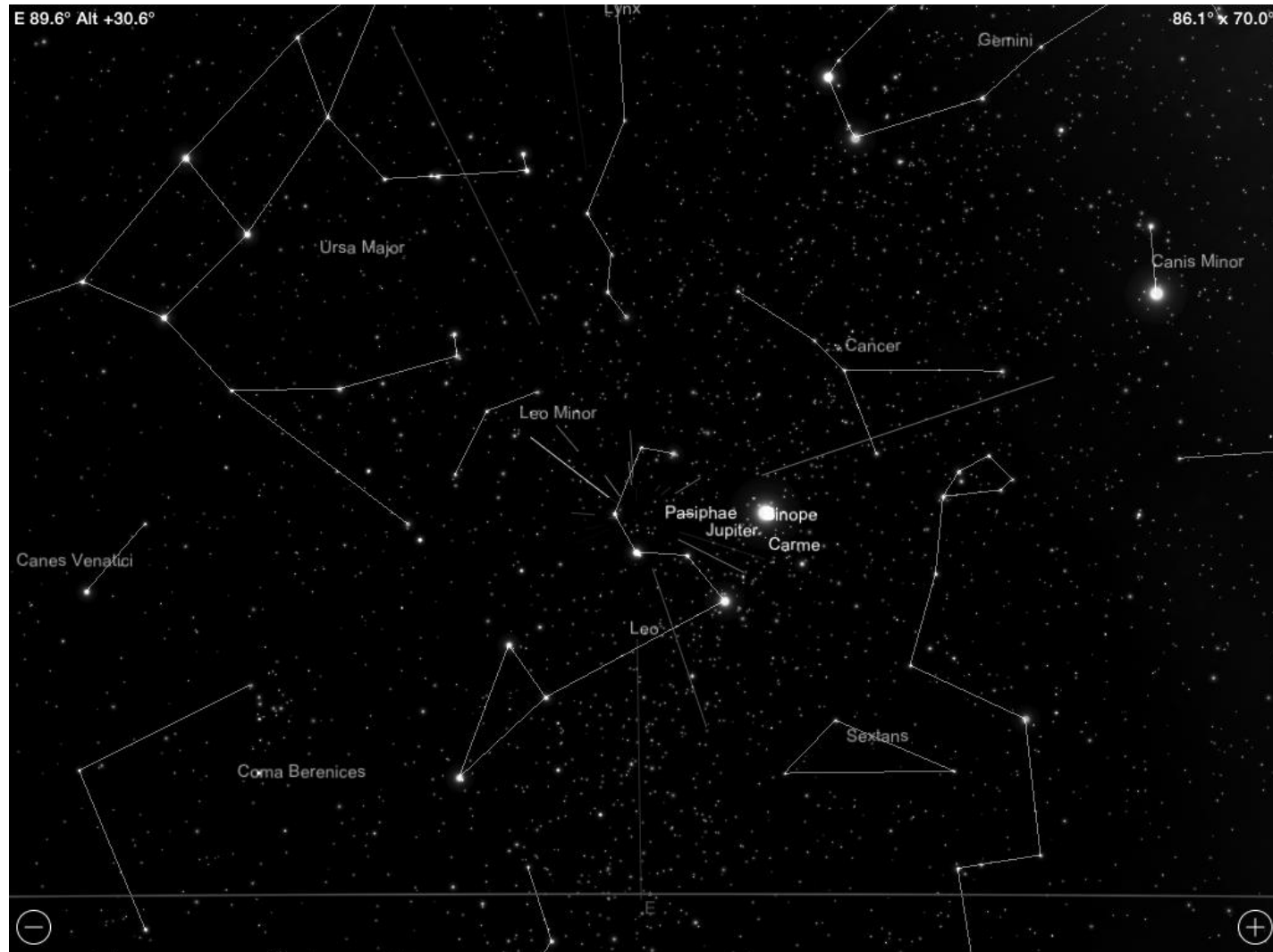
18th November

Leonid Meteor
Shower Peak

ZHR 20

Moon age 26 Days

Some shooting stars will be visible each night from 15th to 20th, but the best show will be expected on or around the 18th. The moon will be giving minimal interference.



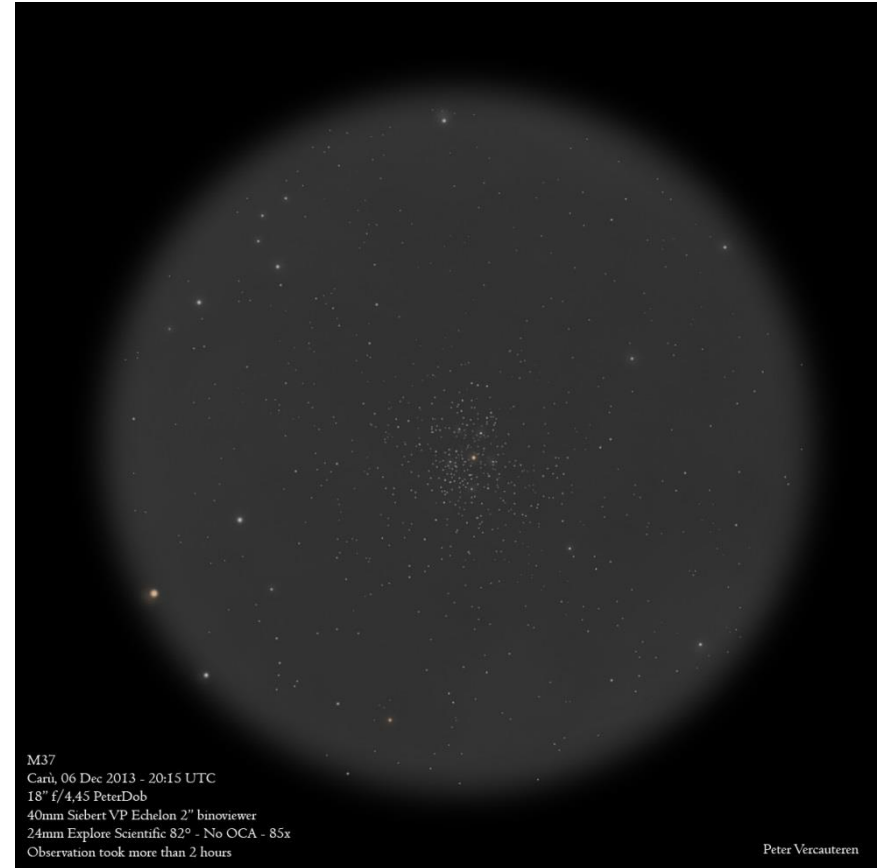
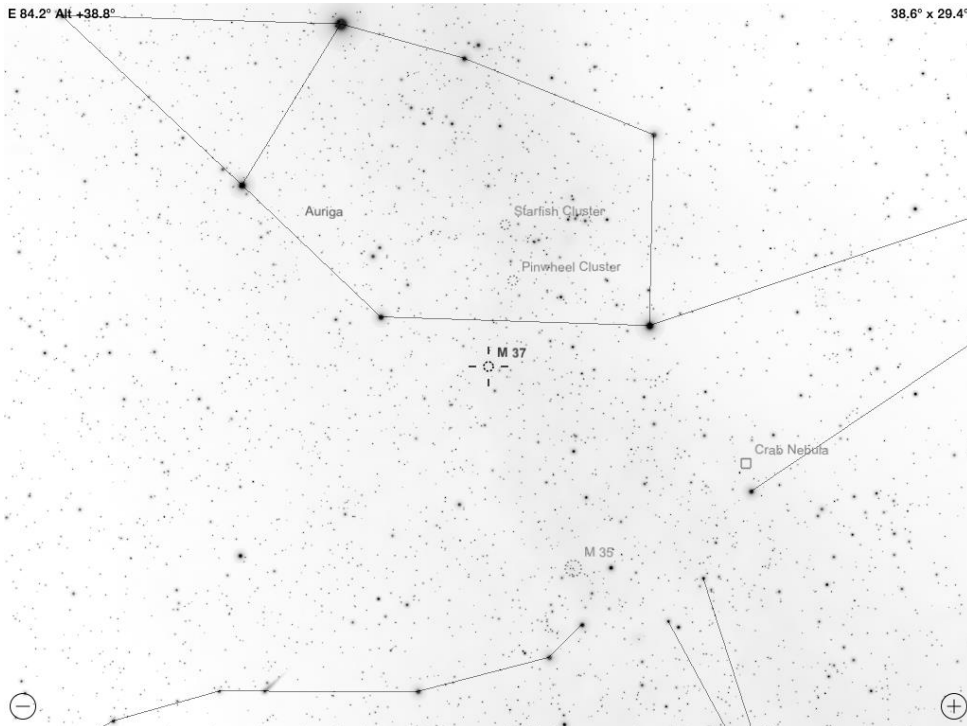
What's Up

Suggested Objects

Messier 37

Open Cluster in Auriga

The brightest of the three Messier open clusters in Auriga M37 is easily visible in binoculars or a small scope. The cluster has a 9th Magnitude star at its centre



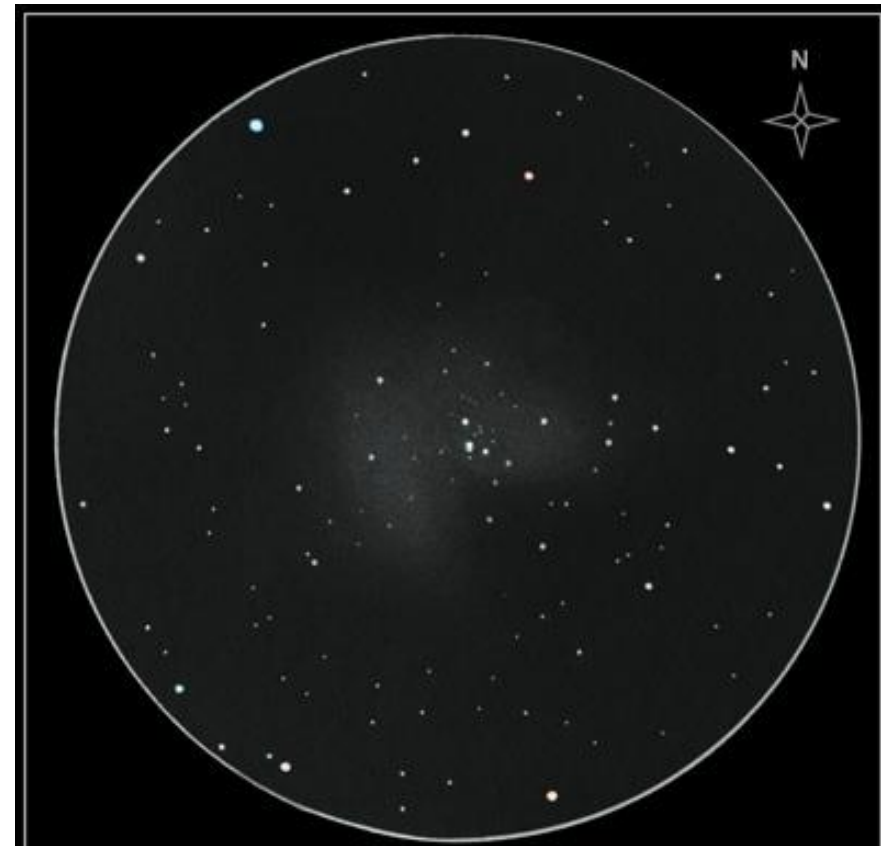
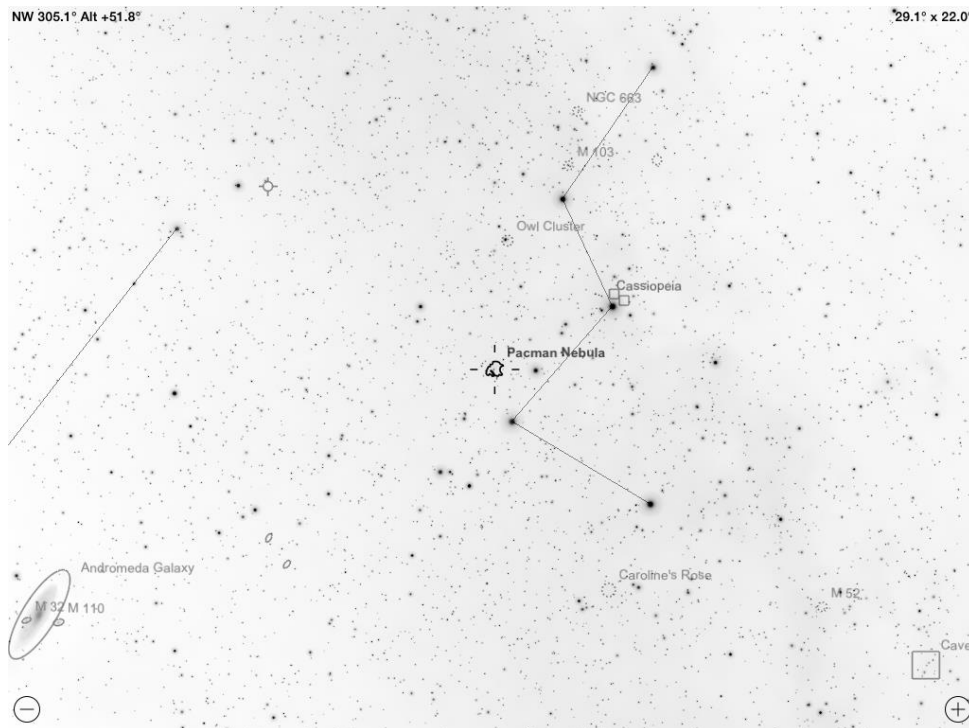
What's Up

Suggested Objects

NGC 281

Pacman Nebula in Cassiopeia

The brightest of the three Messier open clusters in Auriga M37 is easily visible in binoculars or a small scope. The cluster has a 9th Magnitude star at its centre



NGC 281, IC 1590 - Pac Man nebula

Emission nebula and
open cluster
distance: 9.5 Kly
const: Cassiopea
notes: faint nebula.
resembles "pac man's"
head, with HD 5005 mul-
tiple star as it's "eye"

scope: 8" F/5 Newtonian
13mm Vixen LVW , UHC
magnification: 77X (0.85°)
location: Negev Desert, Israel
~ 6.6m NELM sky
date: 25-26.11.2011 , 22:30
sketch by *Michael Vlasov*
www.deepskywatch.com

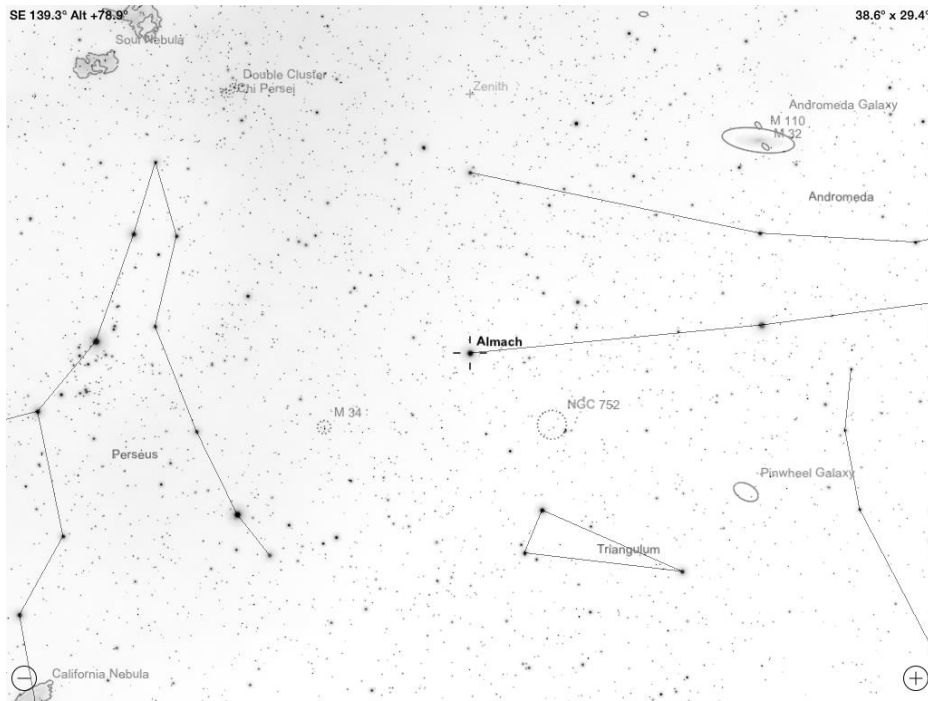
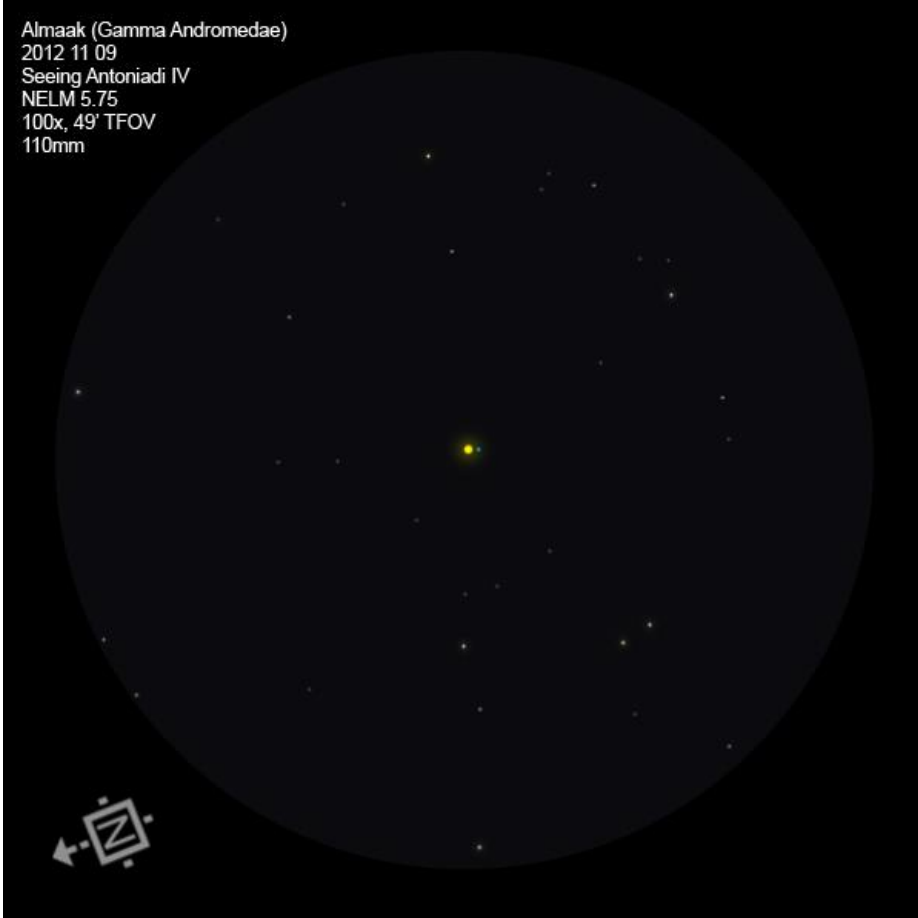
What's Up

Suggested Objects

Almach - Gamma Andromedae

Double Star in Andromeda

One of the best double stars in the sky Almach has two components the brighter is golden yellow the other blue. Easily with in the reach of even a modest scope it can be split with as little as 50x magnification but looks best at 100x or more



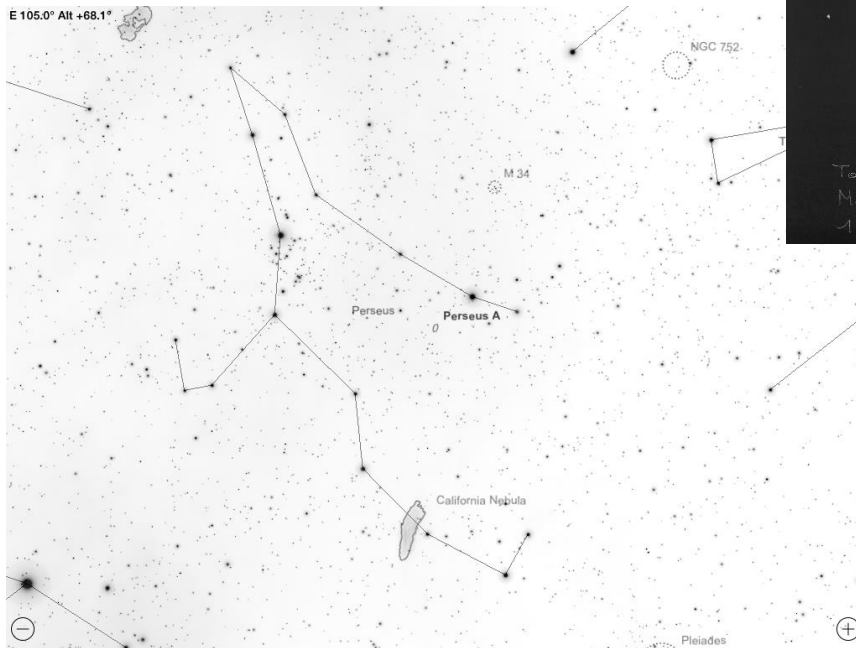
What's Up

Suggested Objects

Abell 426 - Perseus galaxy cluster

Galaxy Cluster in Perseus

The Perseus galaxy cluster (Abell 426) is a rich cluster containing over 500 members centred on the large elliptical galaxy NGC 1275. Also known as Perseus A.



Only 5-6 members of the cluster are visible in amateur scopes and then only in large aperture scopes in very good conditions but Perseus A itself although small and faint is within reach of an 8" Newtonian even in the light polluted skies of the south-east

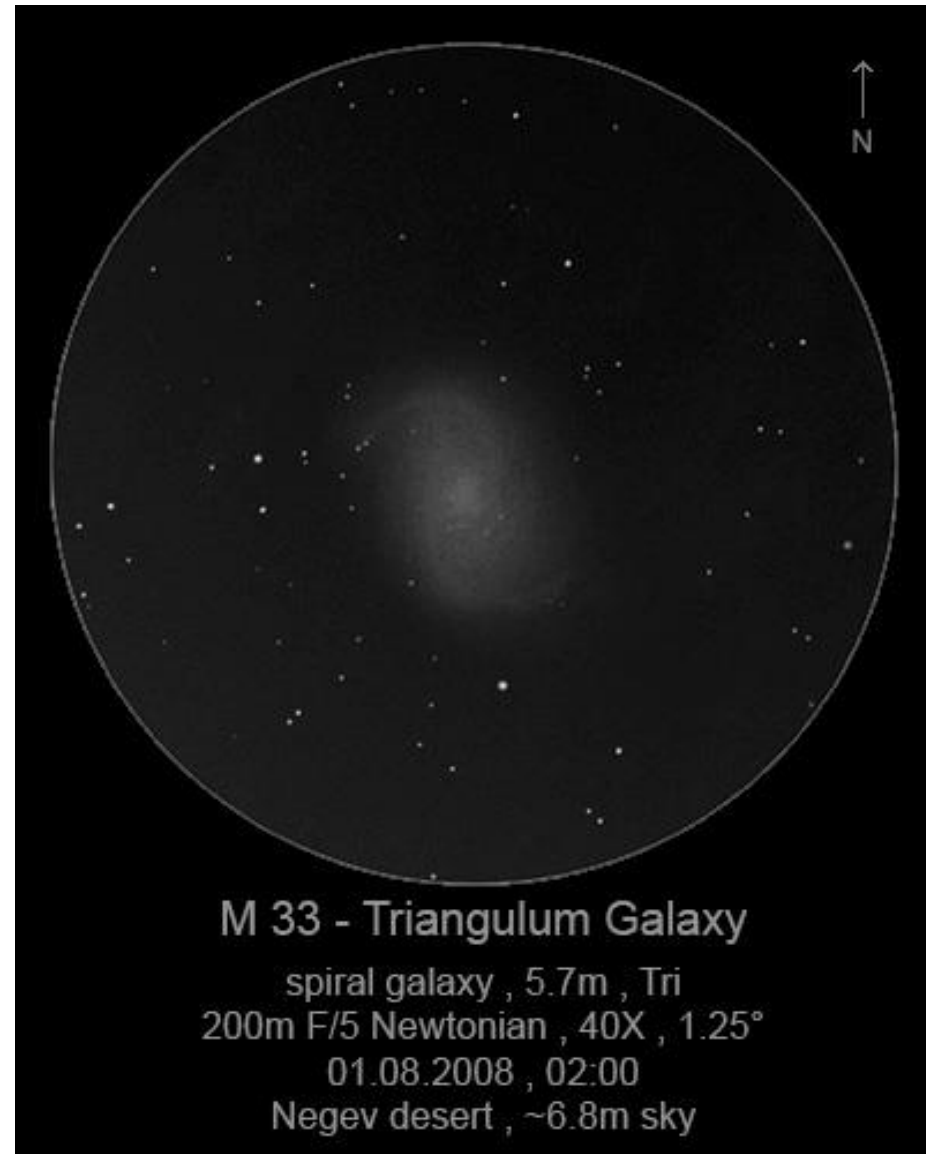
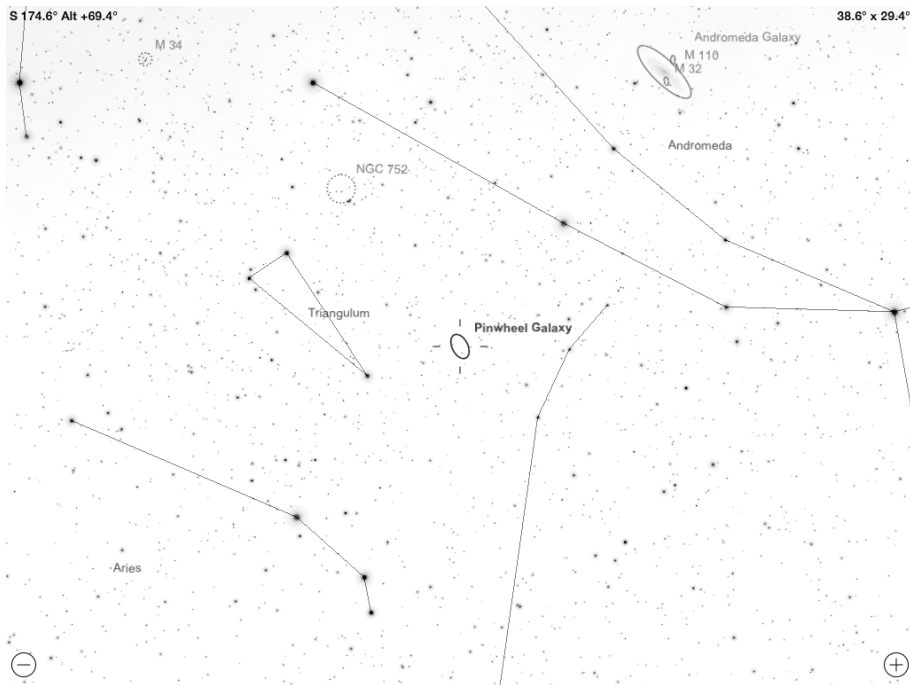
What's Up

Suggested Objects

Messier 33

Pinwheel Galaxy in Triangulum

Just visible to the naked eye under really dark skies and lying 3 million ly away, 750,000 ly beyond M31 this is the furthest object visible without optical aid. Covering the same area as 4 full moons it look fabulous in good binoculars or a low magnification eyepiece.



M 33 - Triangulum Galaxy

spiral galaxy , 5.7m , Tri
200m F/5 Newtonian , 40X , 1.25°
01.08.2008 , 02:00
Negev desert , ~6.8m sky

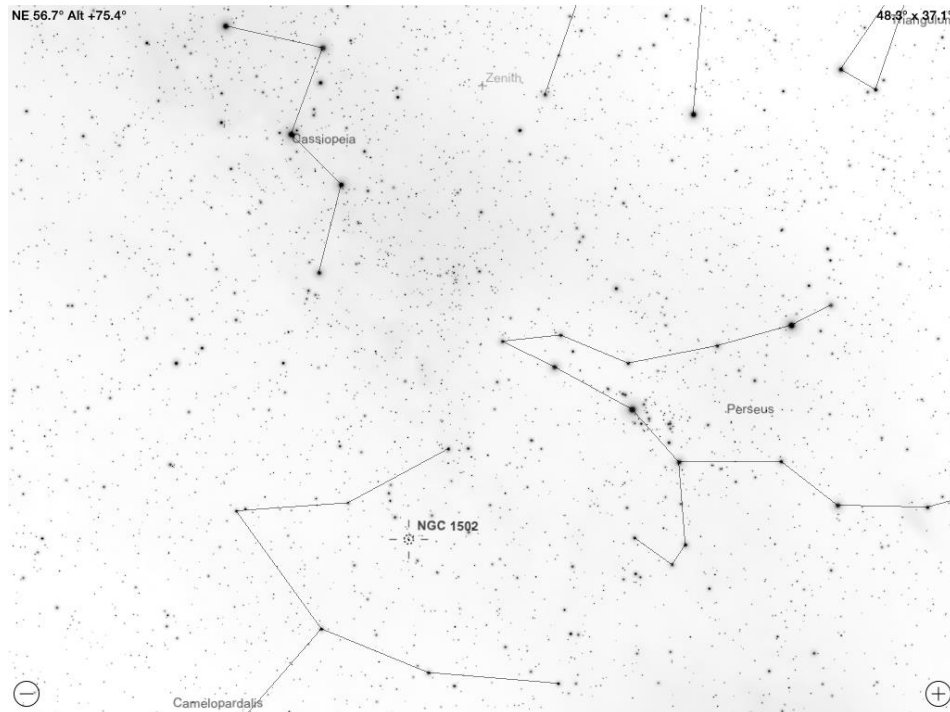
What's Up

Suggested Objects

Kembles Cascade

Asterism in Camelopardus

A beautiful 2.5 degree long rivulet of 8th magnitude stars with open cluster NGC 1502 at one end. Covering so much sky it is best viewed in 7x or 10x binoculars. Easily located by extending a line along the top of Cassiopeia and travelling the same distance as the width of the "W"



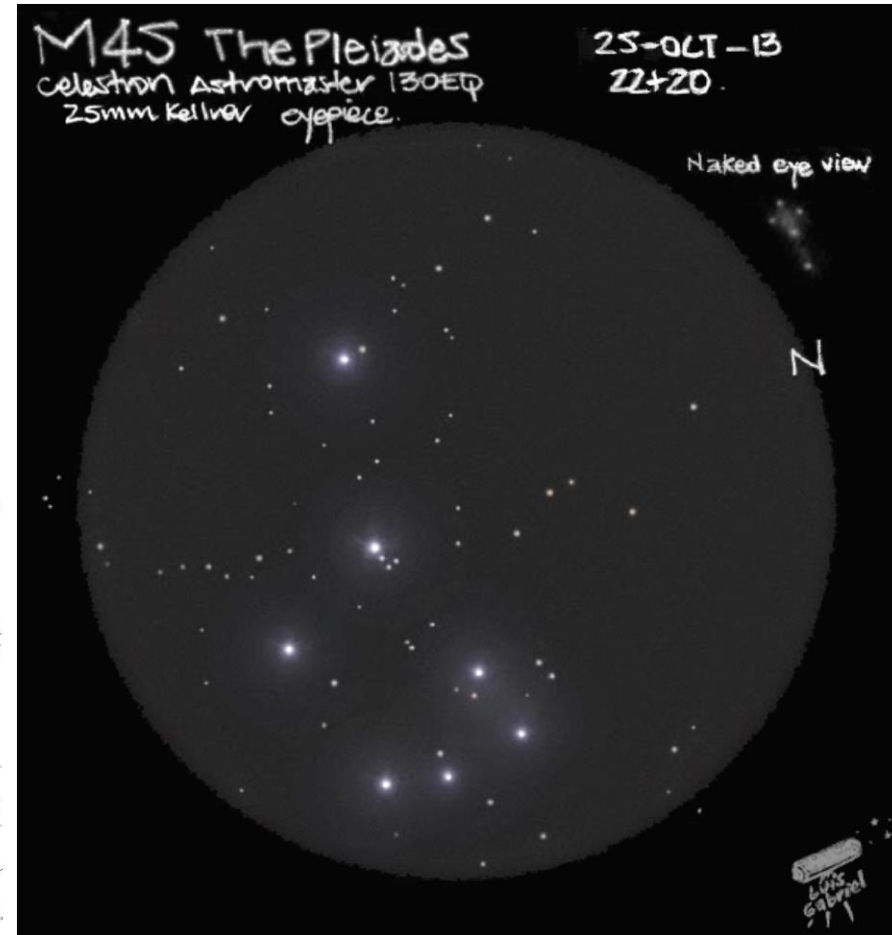
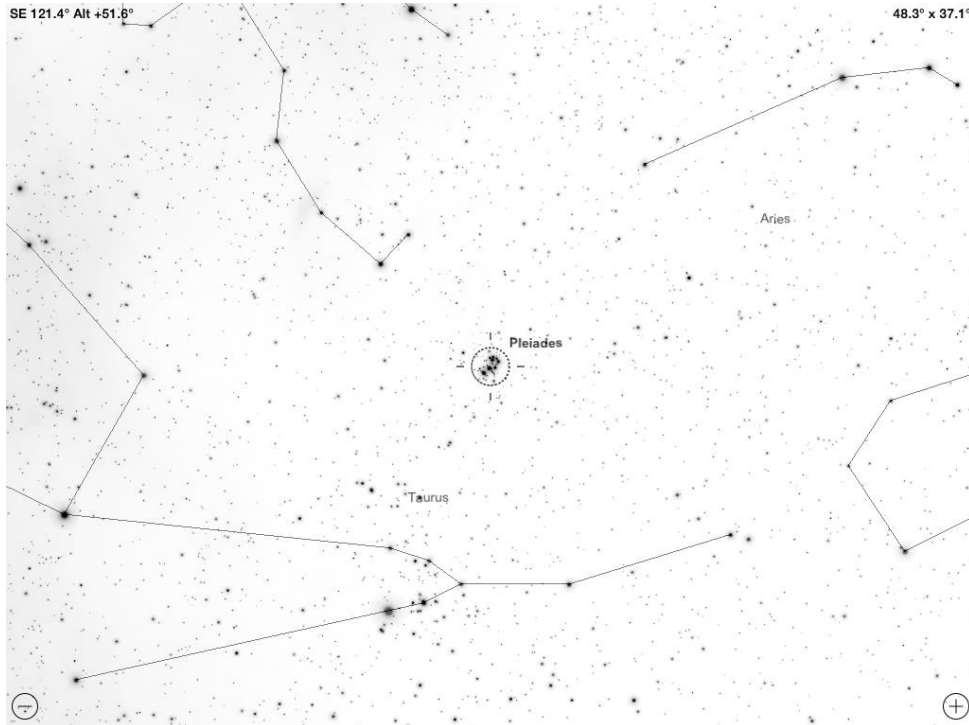
What's Up

Suggested Objects

Messier 45

Pleiades Star Cluster in Taurus

Also known as the Seven Sisters, M45 is one of the closest clusters to Earth lying only 430 ly away. Easily visible to the naked eye and looking wonderful in binoculars and scopes of all sizes it is one of the most beautiful objects in the sky.



When observing look for Ally's Braid - a chain of fainter stars that trail away from Alcyone

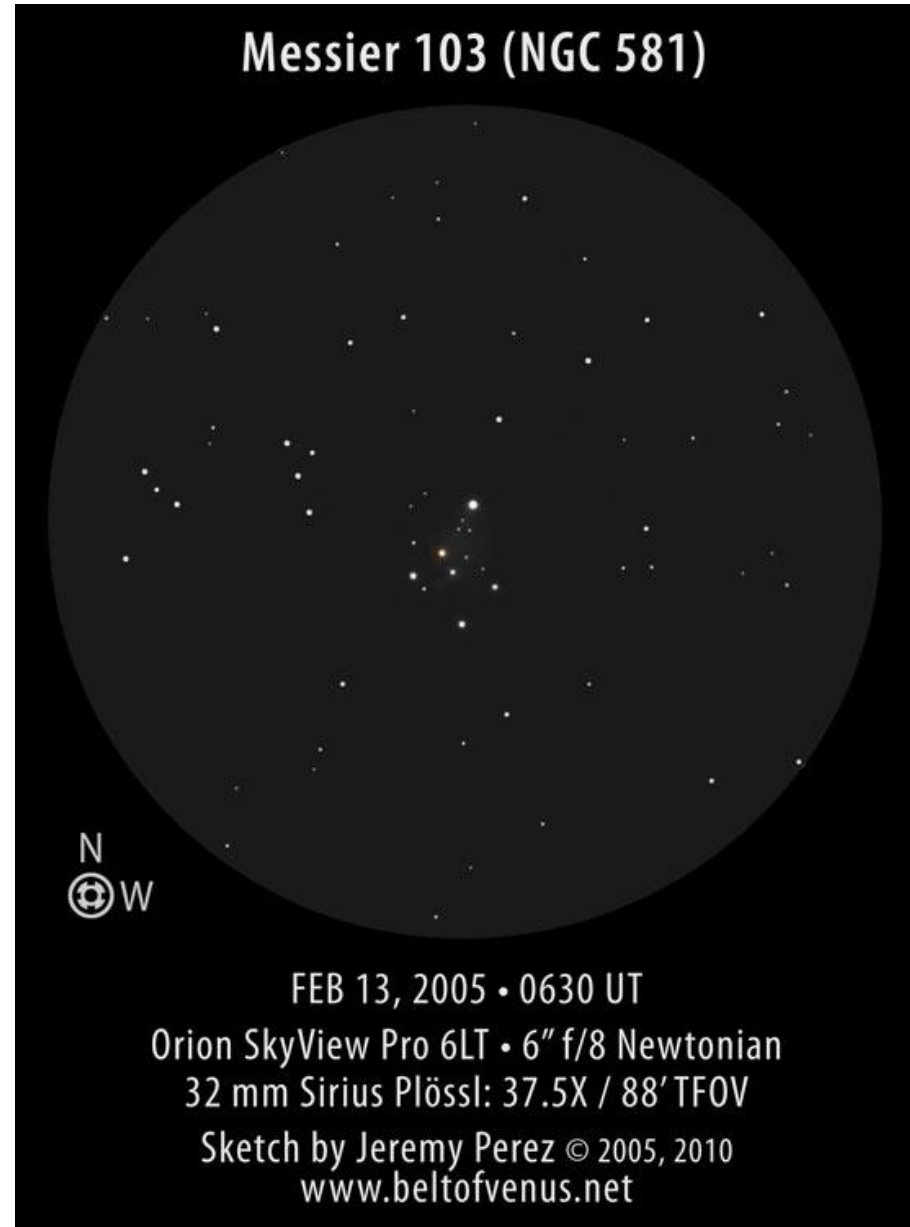
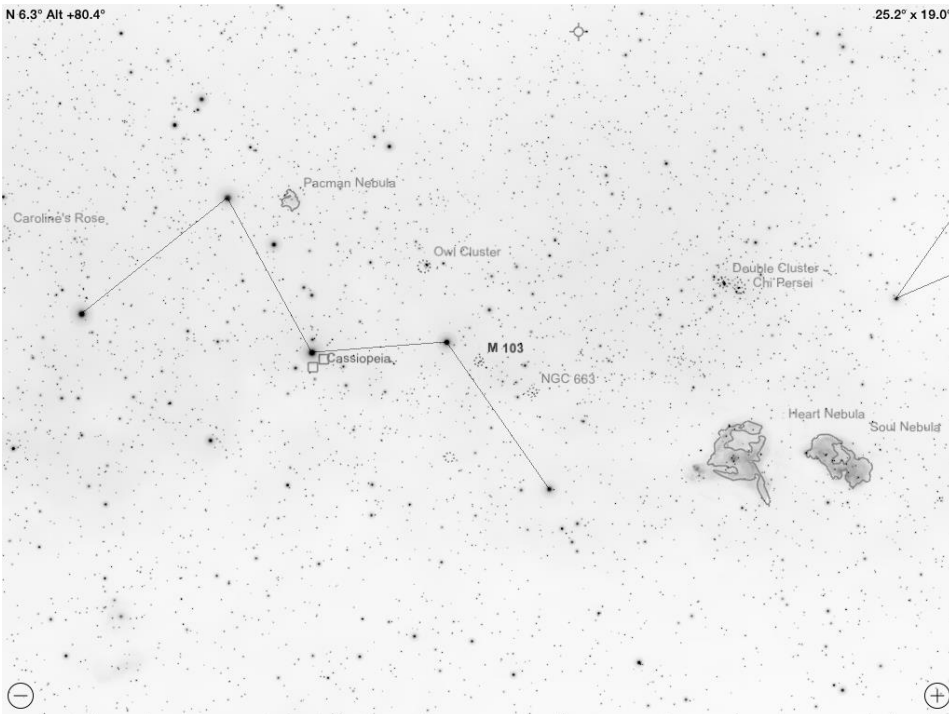
What's Up

Suggested Objects

Messier 103

Open Cluster in Cassiopeia

A loose open cluster appearing as a nebulous fan-shaped patch M103 is easier to find in binoculars than a scope, however a scope will show many of the fainter member stars and the cluster assumes an arrowhead shape.





What's Up

Observing Evenings

Next Scheduled Observing Evening

Friday 21st November

At Albury

Moon's age, 1 day (3%)

Alternate Date Saturday 22nd November



Please join us if you can

What's Up In the news

Rosetta mission - Comet landing gets green light

The decision to try to land a robot on Comet 67P/Churyumov-Gerasimenko on 12 November has been confirmed.

Planners on Europe's Rosetta mission announced a preference for a touch-down location on the head of the icy, rubber-duck-shaped object.

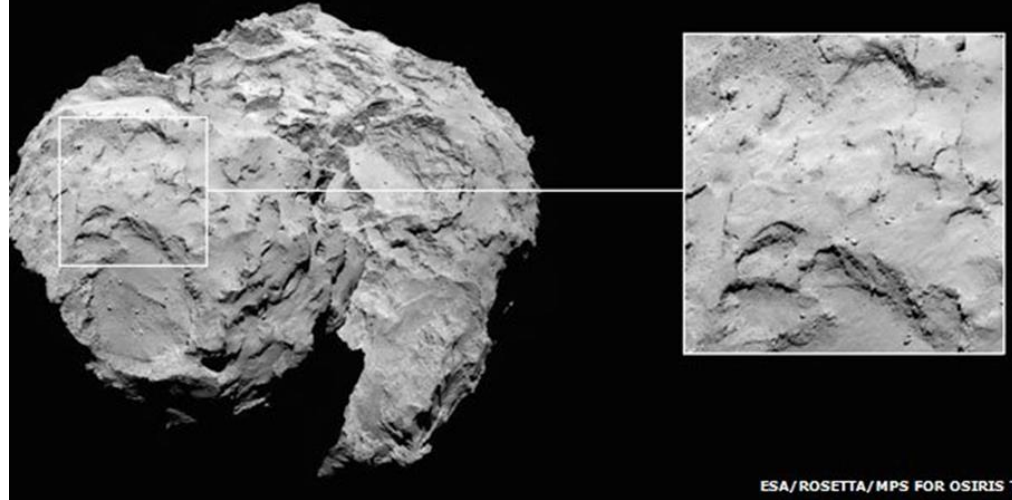
A detailed follow-up analysis, informed by new high-resolution pictures, has found no reason to rescind the choice.

The Rosetta probe will eject the Philae robot shortly after 08:30 GMT on the day of landing.

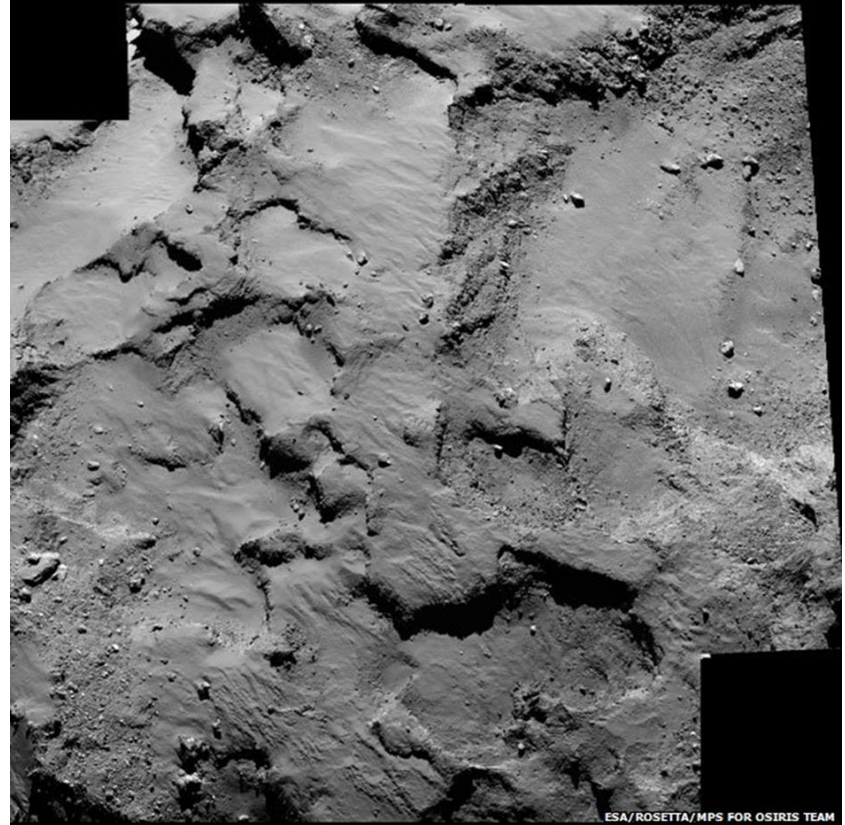
The shove will be imparted at a distance of about 20km from the surface of 67P.

The descent to the 4km-wide comet is expected to take about seven hours. Success or failure will be known roughly 30 minutes after that.

Rosetta/Philae landing site "J"



ESA/ROSETTA/MPS FOR OSIRIS TEAM

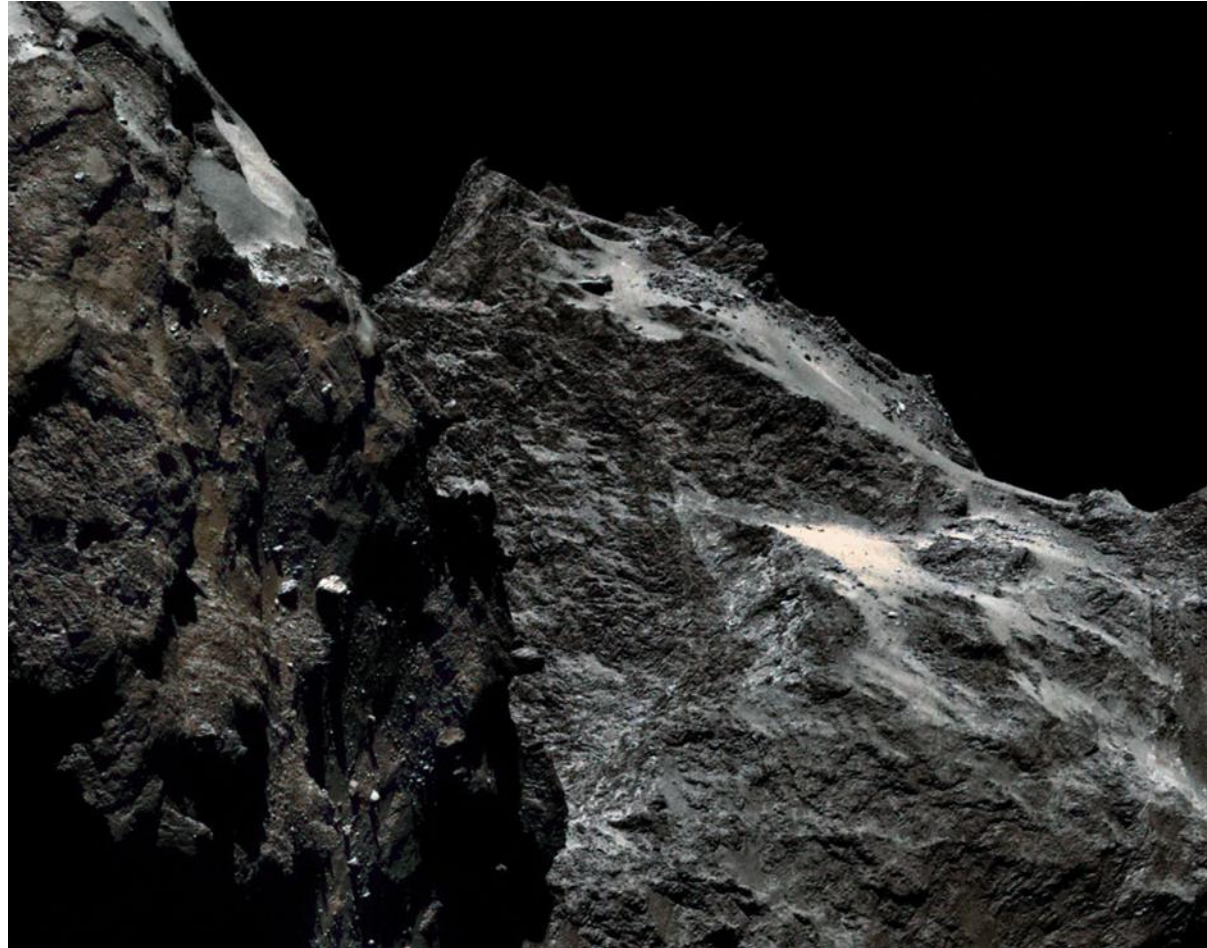


ESA/ROSETTA/MPS FOR OSIRIS TEAM

What's Up In the news

62 Kilometers above Comet Churyumov- Gerasimenko

Spacecraft Rosetta continues to approach, circle, and map Comet Churyumov-Gerasimenko. Crossing the inner Solar System for ten years to reach the vicinity of the comet, the robotic spacecraft continues to image the unusual double-lobed comet nucleus. The reconstructed-color image featured indicates how dark this comet nucleus is. On the average, the comet's surface reflects only about four percent of impinging visible light, making it as dark as coal.



What's Up In the news

What does a comet smell like?

A pungent cocktail of rotten eggs, horse pee and formaldehyde, apparently.

Comet 67P's rotten-egg smell comes from hydrogen sulphide, and the horse-stable odour comes from ammonia. These scents are blended with the fainter almond smell of hydrogen cyanide, the vinegar like odour of sulphur dioxide and the sweet-smelling scent of carbon disulphide, researchers said.



"If you could smell the comet, you would probably wish that you hadn't," European Space Agency (ESA) officials wrote on the Rosetta spacecraft blog

What's Up In the news

Amazing NASA Photo of a Crescent Saturn and Titan

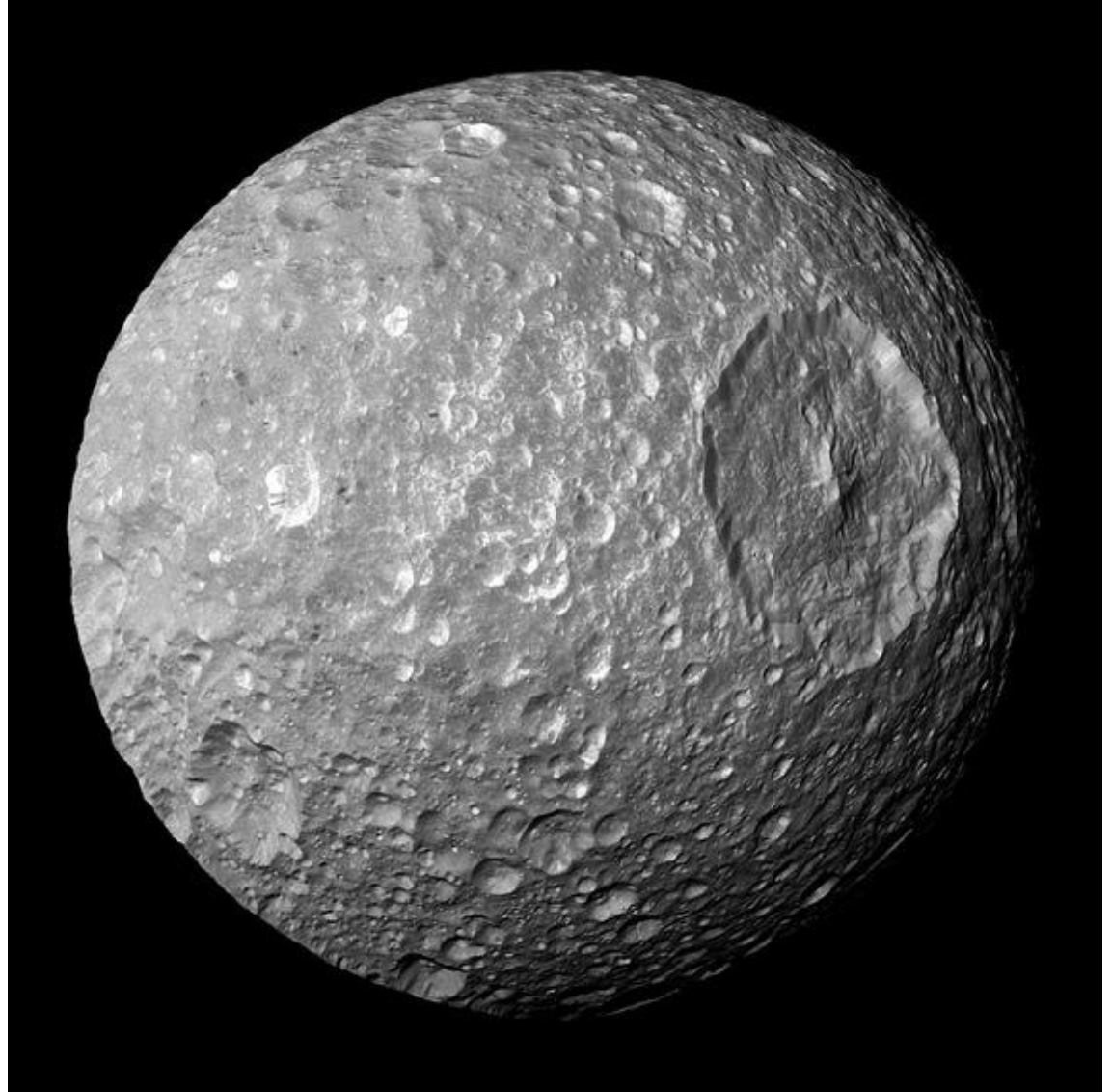
The two cosmic bodies were imaged by the Cassini spacecraft, which has been exploring the Saturn system for about 10 years. The image was captured as the robotic ship was flying about 1.1 million miles from the planet on August 11th 2013 but only released by NASA on Monday



What's Up In the news

Saturn's moon Mimas might have its own subsurface sea

There's more to Mimas than meets the eye. The wobbles of one of Saturn's smallest moons hint at an unusual make-up below the surface – perhaps even an ocean of water hidden underground. Another possibility is that Mimas's silicate core is elongated, shaped more like a rugby ball than a sphere



What's Up In the news

Orbital Sciences' Antares Rocket Explosion

On Oct. 28, 2014, an Orbital Sciences-built Antares rocket exploded during lift-off during a mission to deliver cargo to the International Space Station for NASA.

An investigation into last week's explosion along the Virginia coastline pointed to a problem with the turbo-pump in the rocket's main engine. a refurbished NK-33 from the Russian N-1 moon program as the most likely cause.



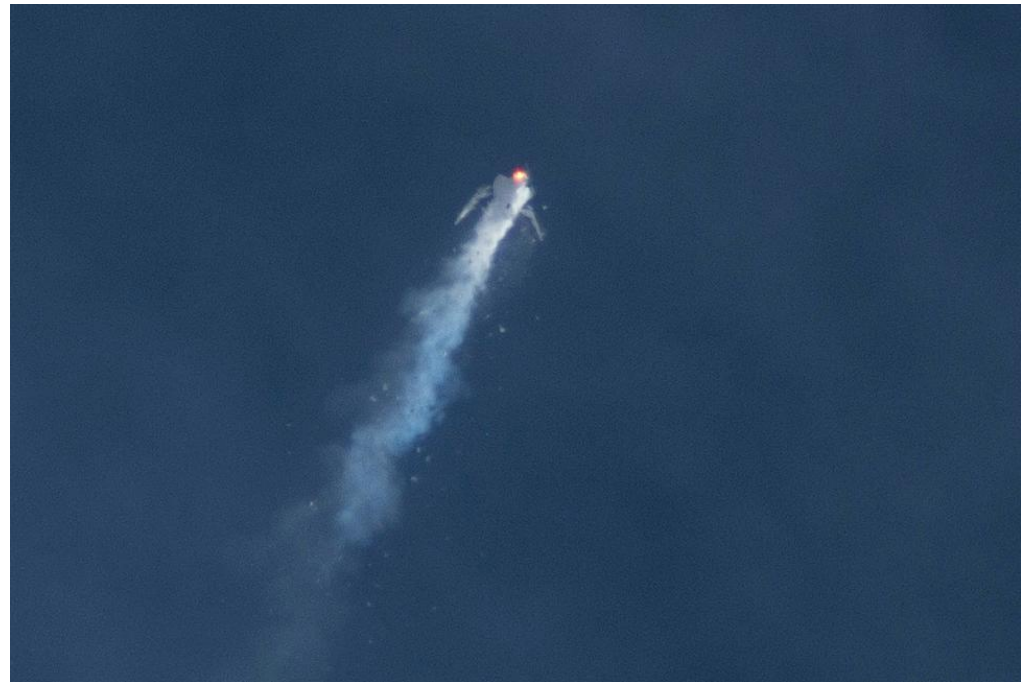


What's Up In the news

Virgin Galactic spaceship crashes in desert during test flight, killing one

The SpaceShipTwo suborbital rocket, which was slated to become the world's first commercial rocket plane, crashed during a test flight over the Mojave Desert Friday, killing one person and seriously injuring a second.

Currently the crash is suspected to have been caused by an uncommanded deployment of the crafts 'Feathering' descent system





What's Up Next Meeting

Thursday 4th December

Dr Chris Lintott

Researcher and Citizen Science
Project Lead,
Department of Physics,
University of Oxford

**Is the Milky Way special: Our
galaxy and the other galaxies.**

