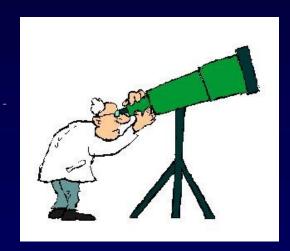
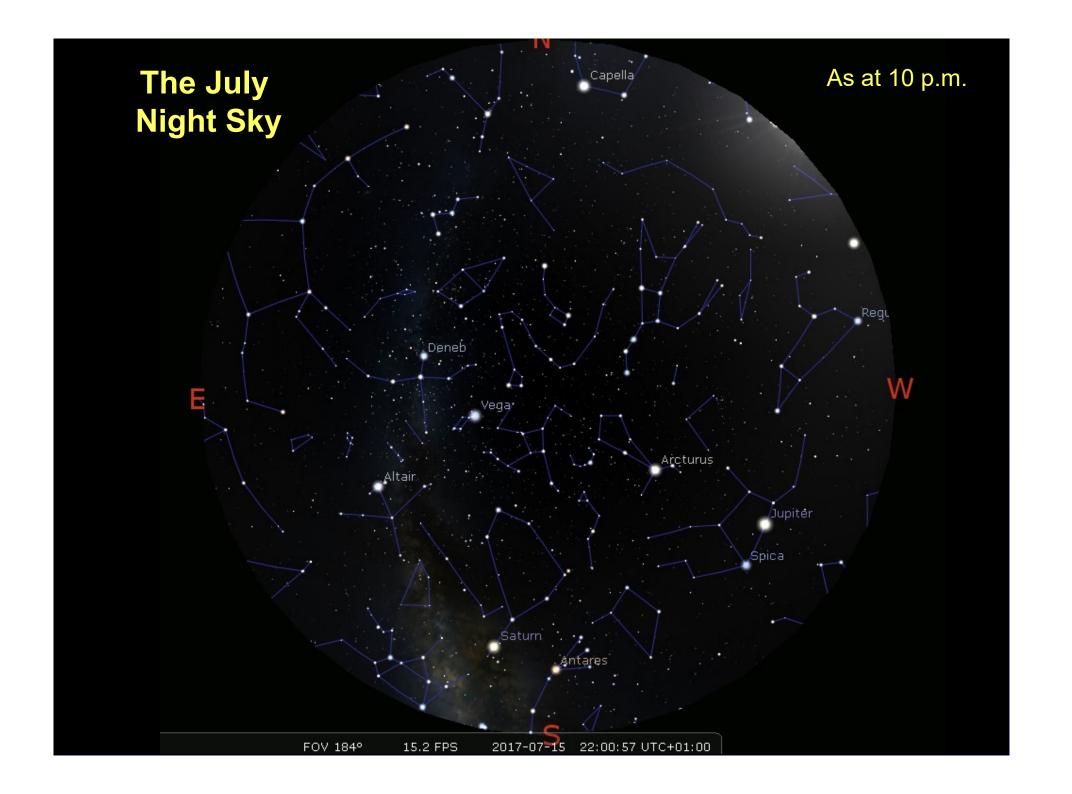
What's Up!

For July 2017







The Moon in July



What's Up - Planets



Mercury

an evening object all month very low in the West North West, after sunset, starting at Mag -1.0 then dimming to +0.3 by the end.

Venus

 A brilliant morning object at Mag -3.9 low in the East, rising about 90 mins before the Sun. It moves from just South of the Pleiades then through the Hyades cluster in Taurus.

Mars

Not visible this month

What's Up - Planets



Jupiter

 Visible most of the evening but will sink further towards twilight as month draws on. At Mag -2.0 it dominates the Western night sky. Easily visible as a disc in binoculars and small telescopes.

Saturn

 Now in Ophiuchus as an evening object, but still relatively low at 15° and magnitude +0.2. Its rings are tilted very favourably, so a fine sight in a small telescope.

Uranus

Telescopic morning object at Mag +5.8 in Pisces

Neptune

Telescopic morning object at Mag +7.8 in Aquarius

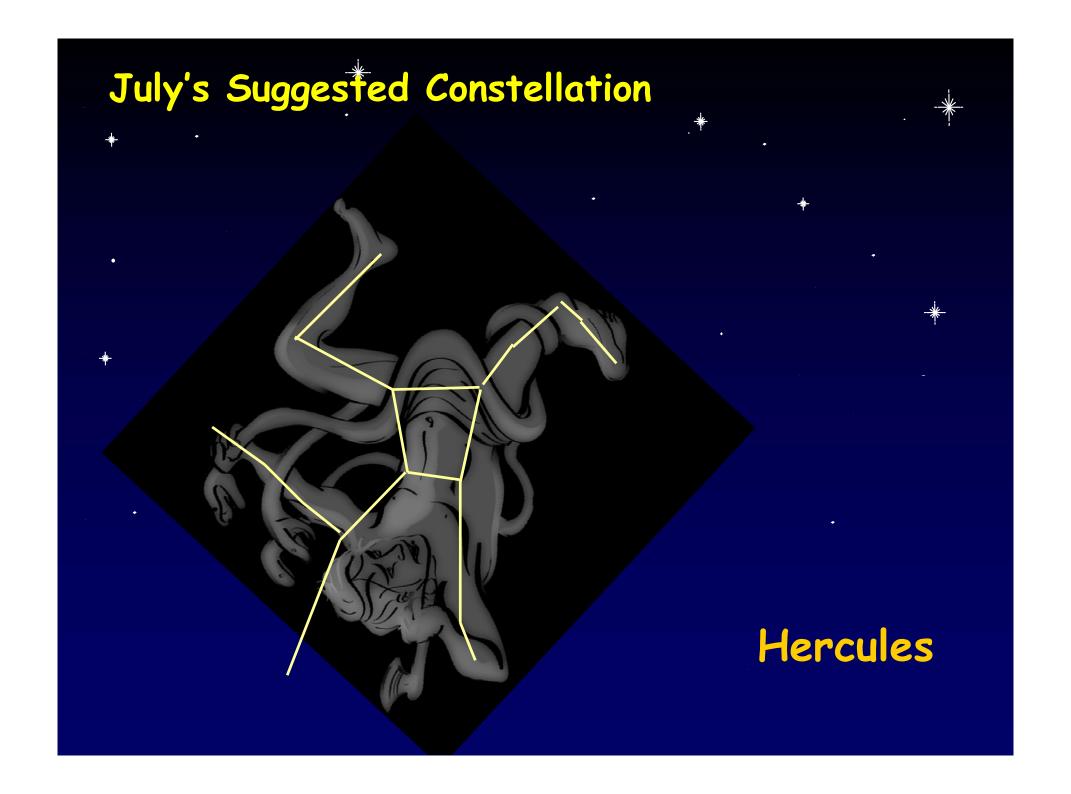
Events of Interest in July

- -*-
- 3rd Earth is at Aphelion its furthest from the Sun
- 7th Saturn just 3° from the Moon
- 25th Mercury will be occulted by waxing crescent Moon in daytime. Disappears behind dark limb of Moon at 8.31 a.m. and reappears 30 mins later.
- 28th Jupiter will be 2° from 33% crescent Moon in the evening
- 30th Lunar X (a lighting phenomena) visible in binoculars about 1/3 way up terminator from Southern end of Moon.
- All month Noctilucent clouds might be visible low in the North during evening twilight.

Local Events in July

*

• Saturday 8th July Guildford AS will have a stand and solar telescopes at Guildford Cathedral's free Summer Celebration event from 11.00 a.m.



OUT INTO SPACE

Approved by A. Hunter, Ph.D., Sec. Royal Astronomical Society

HERCULES

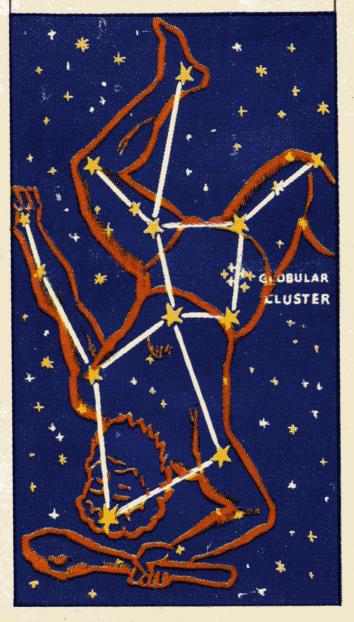
This is a summer constellation and is best seen May to October. It is large and very interesting although containing no star of greater than 3rd magnitude; within it there are numerous double stars, clusters and nebulae. One great cluster is estimated to contain over 1,500 stars concentrated into a very small space in a roughly globular form, and has always been of intense interest to astronomers. Kneeling figure of Hercules, son of Jupiter, is seen upside down. This constellation was mentioned by Eudoxus (4th Century B.C.).

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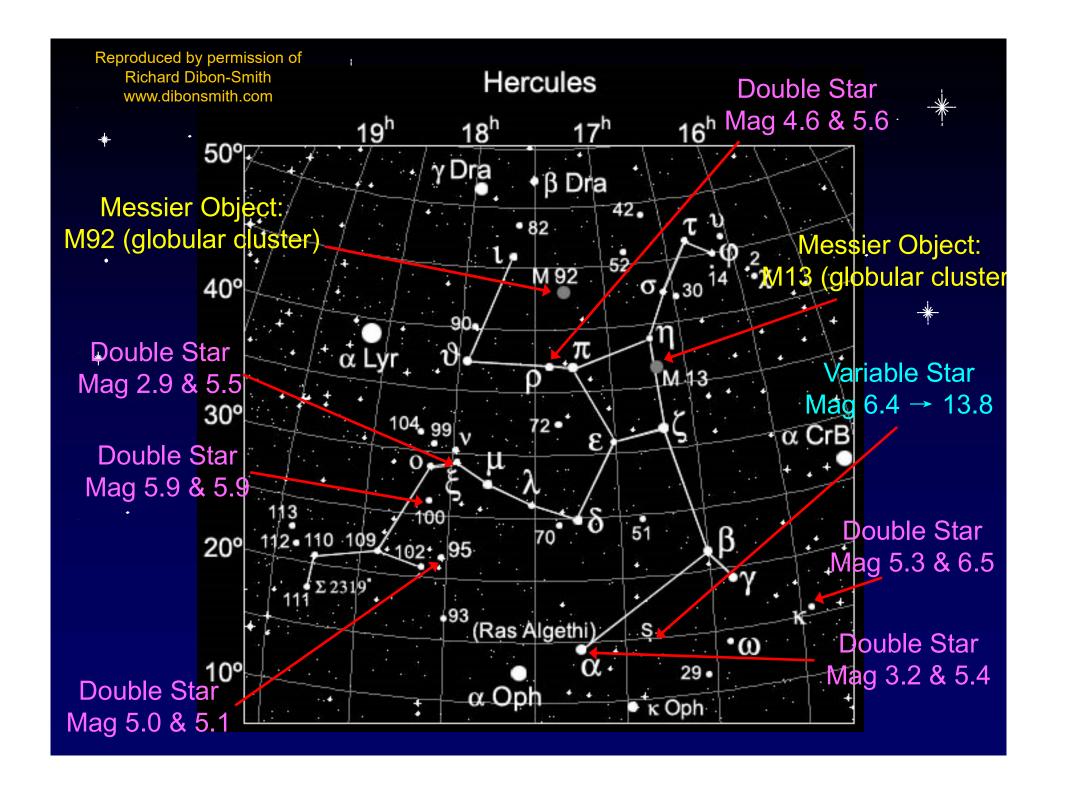
HERCULES

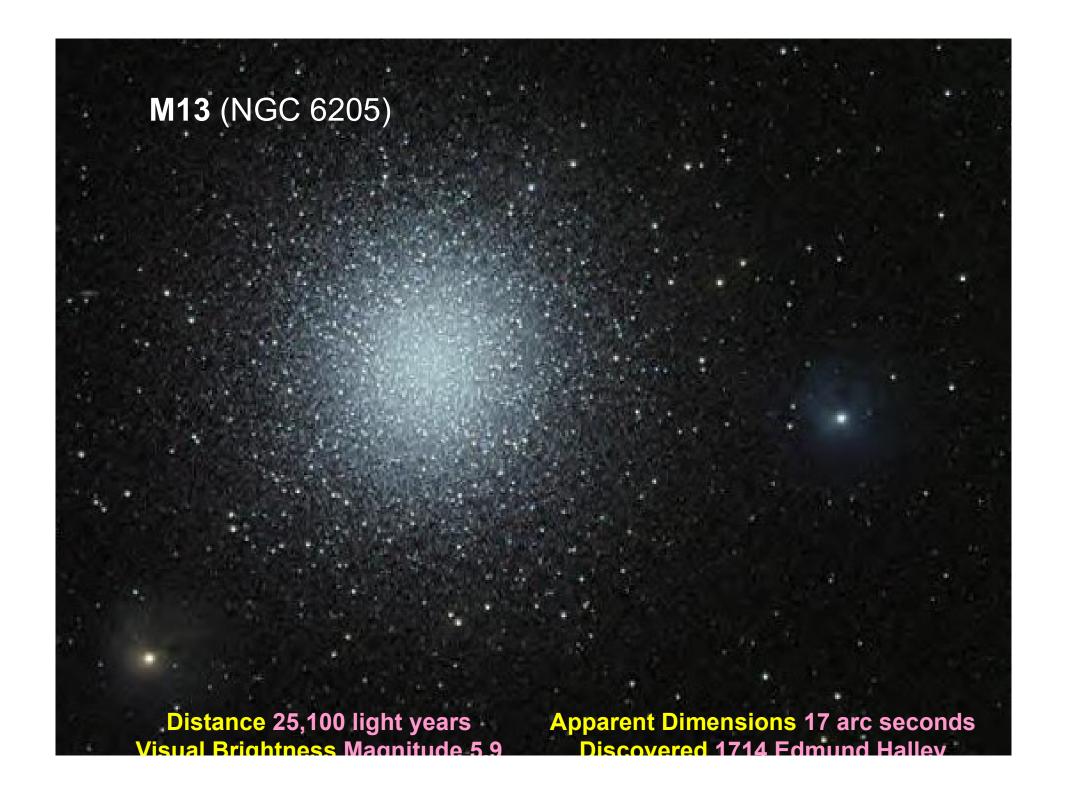


Hercules

- Hercules is the fifth largest constellation, but perhaps not one of the best known, nor easiest to find.
- Best way to find it is to:
 - Find Bootes (last month's Constellaion)
 - Go up along the two stars marking Bootes's left hand side.
 - Follow this line and you should see bright blue-white Vega, one corner of the Summer Triangle
 - Hercules is half way between
 - The four main stars form "The Keystone"
- Hercules contains the northern hemisphere's best known globular cluster, M13, a marvellous sight even in a small telescope. Don't overlook M92, almost as impressive
- The constellation is also home to several really attractive double stars.







M92 (NGC 6341)



Distance 26,700 light years
Visual Brightness Magnitude 6.5

Apparent Dimension 11 arc seconds Discovered 1777 Johan Elert Bode

Meetings at Local Astro*Societies *

- Guildford AS Griffiths Lecture Theatre, Uni of Surrey
 - Thursday 6th July, 7.30 p.m.
 - Annual General Meeting
 - Members Only

- Farnham AS Aldershot Cricket Club
 - Tuesday 11th July, 7.45 p.m.
 - 13 Journeys Through Space & Time
 - The Royal Institute Xmas Lectures on Astronomy, from 1881 to 2015
 - » Colin Stuart

Talks at Local Astro Societies

- Croydon AS Royal Russell School, Coombe Lane, Croydon
 - Friday 7th July, 7.45 p.m.
 - "Discs and Rings"
 - Dr Peter Grimley
 - » Queen Mary College, Uni of London

- Ewell AS Nonsuch High School for Girls, Cheam
 - Friday 14th July, 8.00 p.m.
 - "Exo-Planets and the Goldilocks Zone"
 - Guy Hurst
 - » Editor, "The Astronomer"

Astronomy on T_{*}V



- The Sky at Night
 - Into The Dark Zone
 - The team explores what we know about the outer regions of our Solar System, beyond Neptune
 - dwarf planets with their own moons
 - objects with strange orbits
 - possibility of liquid water and organic material

Sunday 9th July BBC 4, 10.00 pm

Thursday 13th July BBC 4, 7.30 pm

for exact times please check www.radiotimes.com or www.bbc.co.uk/skyatnight