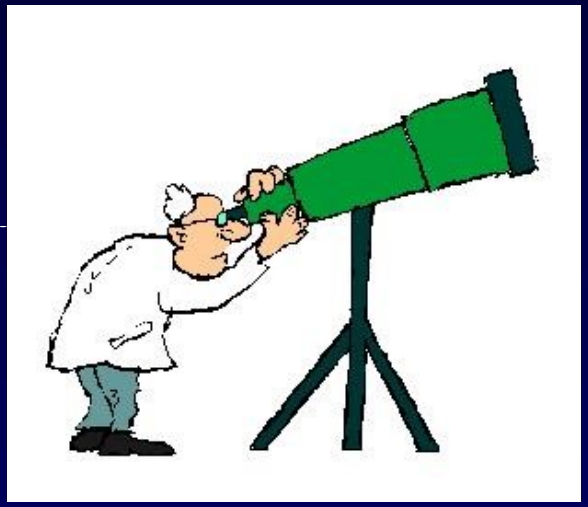
What's Up!

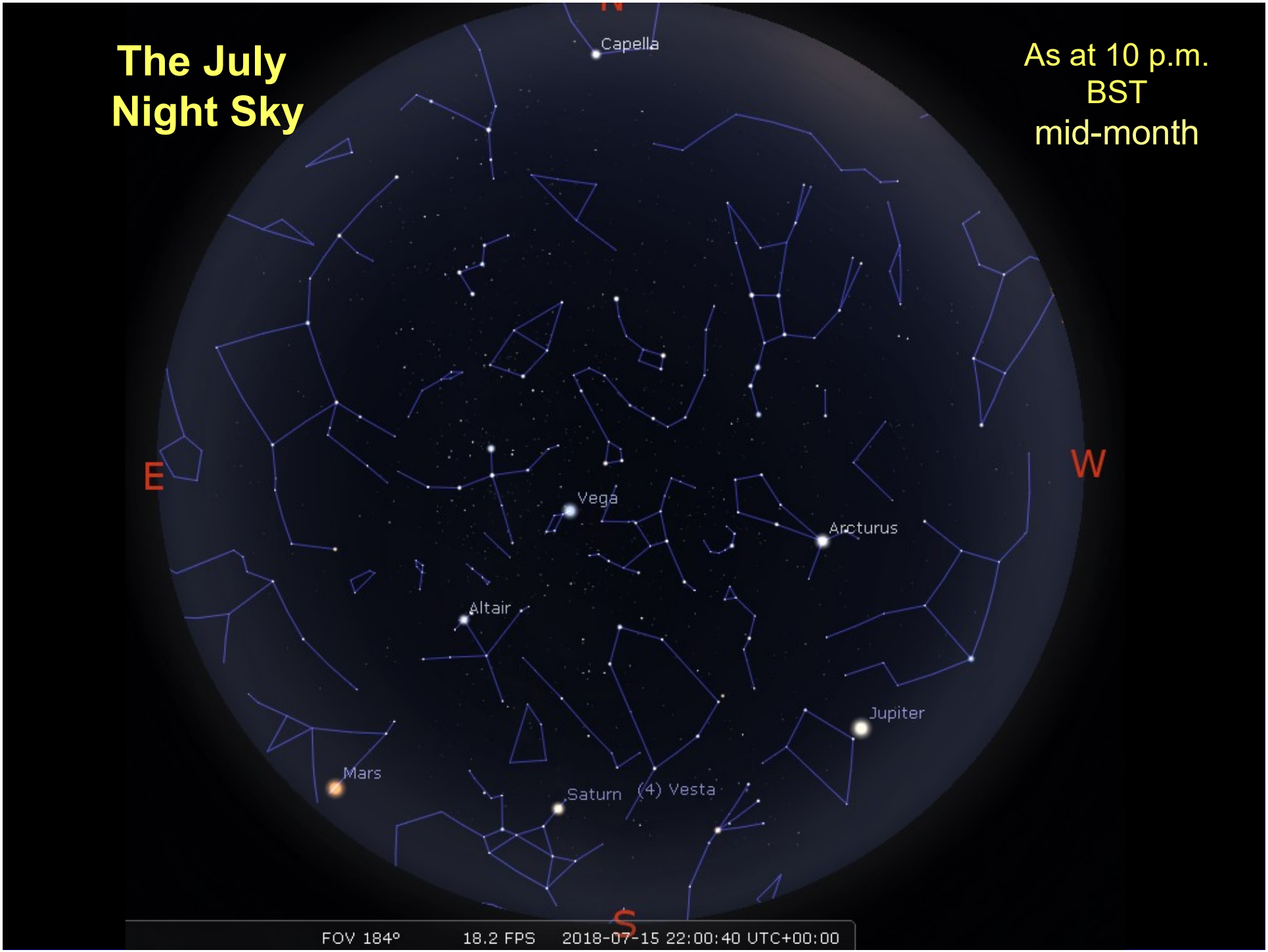
For July 2018



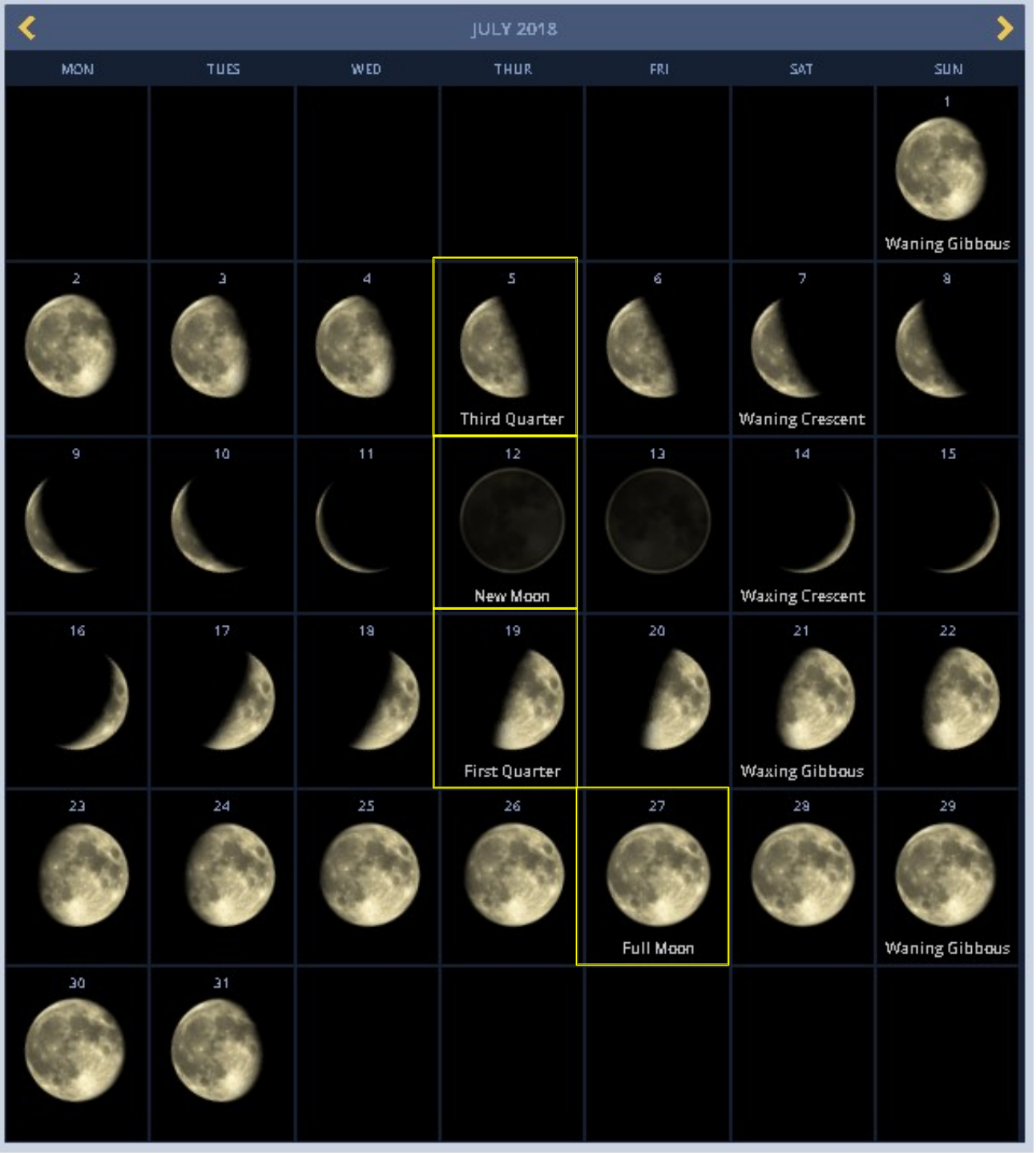
BROOKLANDSRADIO ONLINE The Sound of Surrey

The July Night Sky

As at 10 p.m. BST mid-month



The Moon in July



What's Up - July's Planets

- **Mercury**
  - Reasonably well placed at start of July, but only 5° high in WNW, dimming by mid-month, then we lose it. Becomes a morning object by late August.
- **Venus**
  - A brilliant Mag -4.0 evening object in WNW, setting 2 hours after sunset. Increasing in size while phase decreases
- **Mars**
  - At its largest and brightest at end of July but relatively low at 11° in South, visible either side of midnight. Mag -2.8 puts it brighter than Jupiter. Visible throughout August, rising increasingly earlier.

What's Up - July's Planets

- **Jupiter**
  - An evening object, in SSW as night falls. Sadly relatively low at 11° but easily visible at Mag -2.1. Stays with us till late August.
- **Saturn**
  - An evening object shining at Mag +0.4, very low in Southern sky but rings favourably tilted, visible July & August.
- **Uranus**
  - Becoming visible again from July as a morning telescopic object in ESE, better in August.
- **Neptune**
  - Also becoming visible again from July as a morning telescopic object in SSE, an evening object in August.

Events of Interest in July

- 1st Moon & Mars just 4° apart in early hours
- 2nd Mercury passing close to M44 Beehive 
- 6th Aphelion - Earth 5MK further from Sun
- 8th Venus and Regulus just 1° apart.
- 14th Mercury 2° from slender crescent Moon just after sunset 
- 20th Jupiter and Moon 4° apart
- 27th Total Eclipse of the Moon, from Moonrise at 21.10 BST till 23.40 
- NB 28th & 29th Jupiter appears to have extra Moon!

And don't forget all through July

Look for Noctilucent Clouds - an hour or so after Sunset, NW to N

July's Suggested Constellation

Can you tell what it is yet?

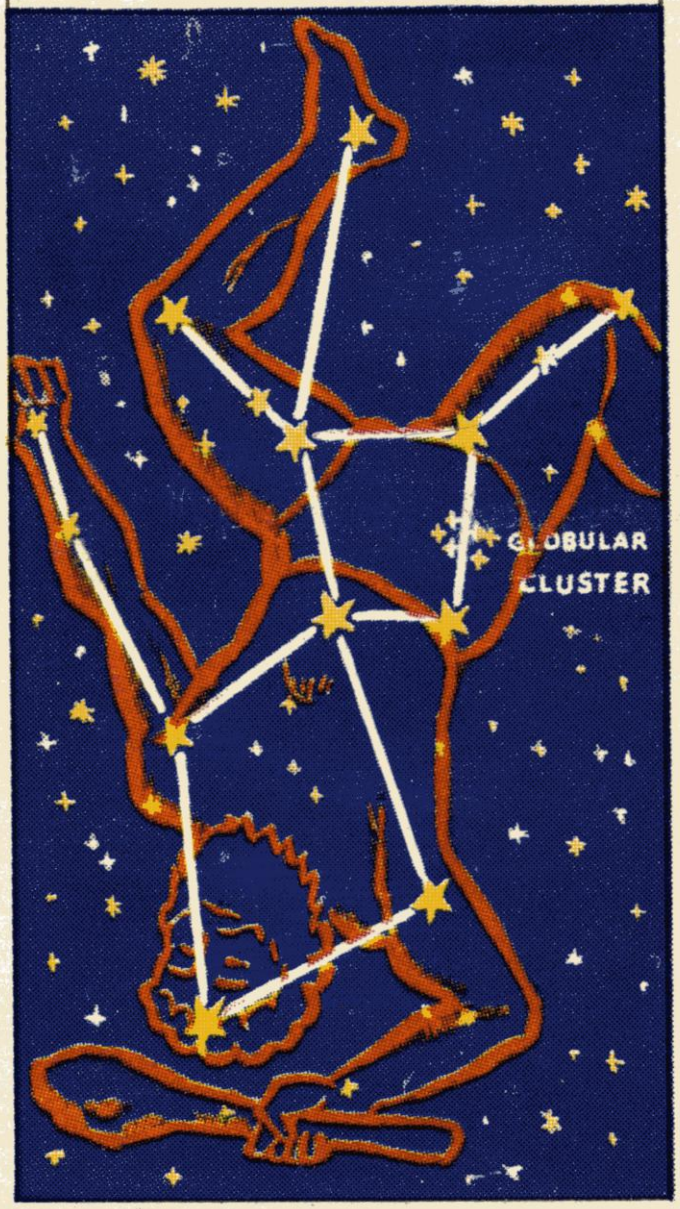
July's Suggested Constellation

That's right – Hercules

July's Suggested Constellation

That's right – Hercules

HERCULES



A SERIES OF 50 No. 43

OUT INTO SPACE

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

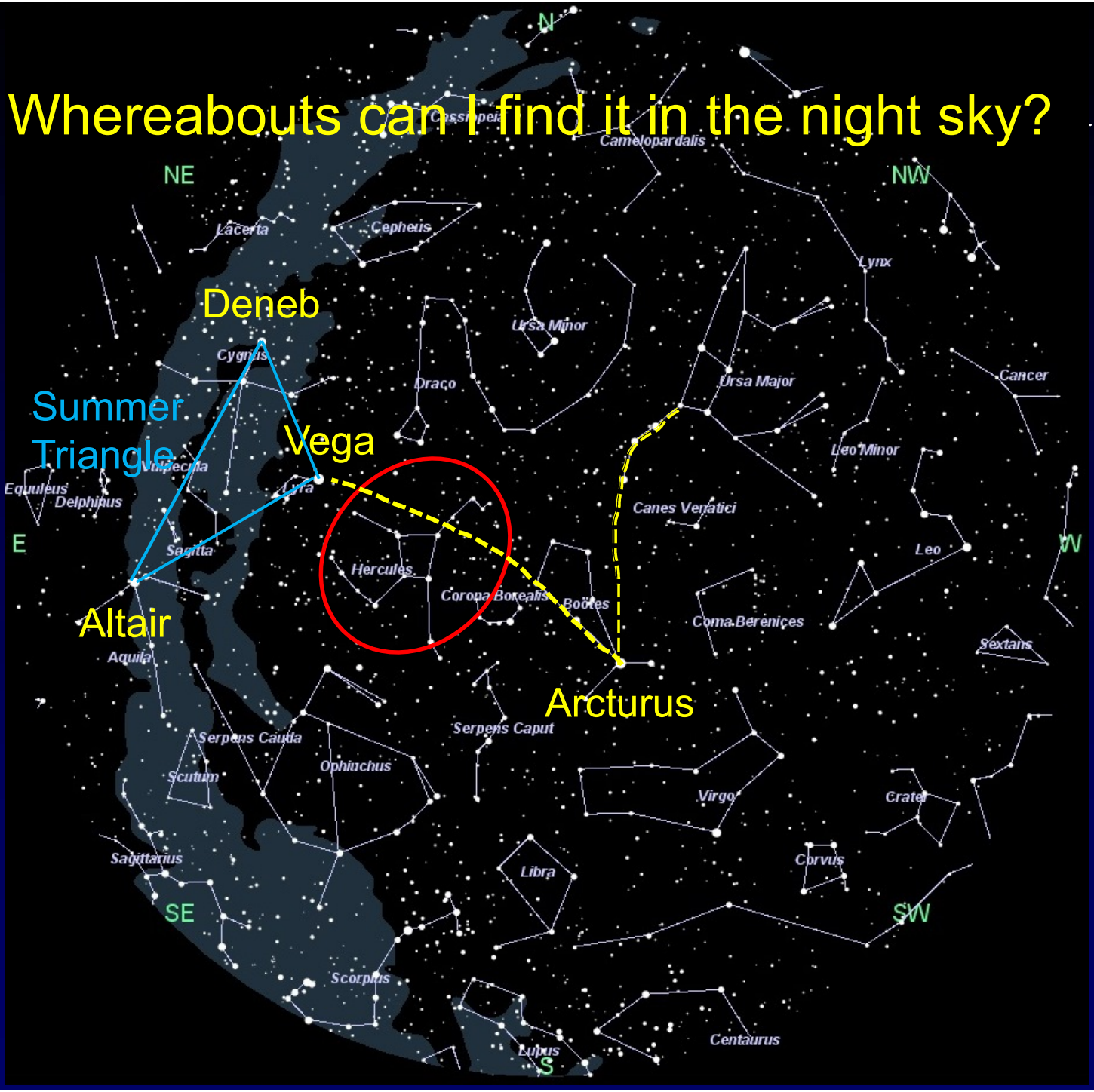
HERCULES

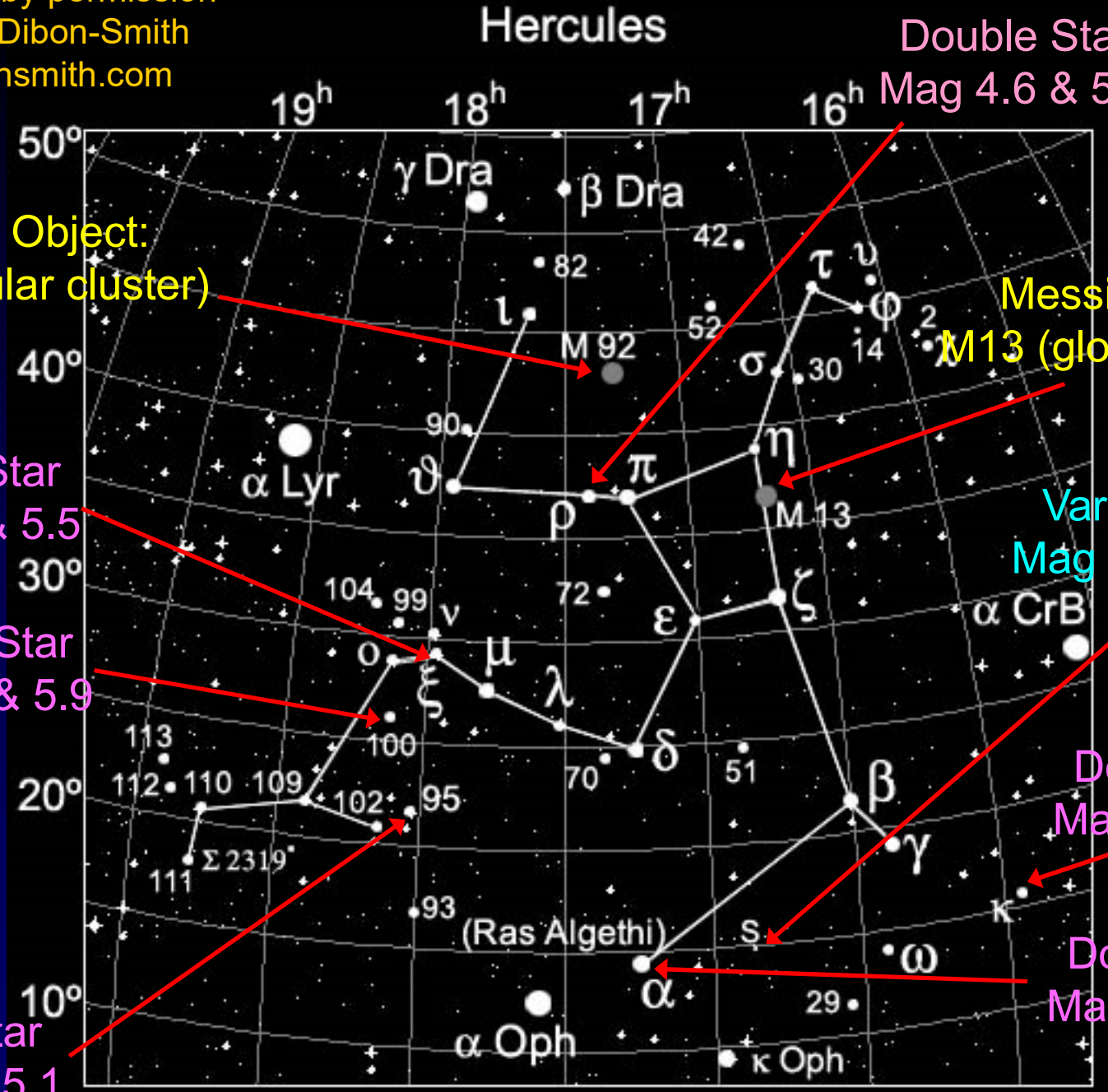
This is a summer constellation and is best seen May to October. It is large and very interesting although containing no star of greater than 3rd magnitude; within it there are numerous double stars, clusters and nebulae. One great cluster is estimated to contain over 1,500 stars concentrated into a very 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.).

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:
  - Make your way to bright orange/red Arcturus (the brightest star in Bootes) by following a line down from the tail of Ursa Major
  - 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.

Whereabouts can I find it in the night sky?





Double Star
Mag 4.6 & 5.6

Messier Object:
M92 (globular cluster)

Messier Object:
M13 (globular cluster

Double Star
Mag 2.9 & 5.5

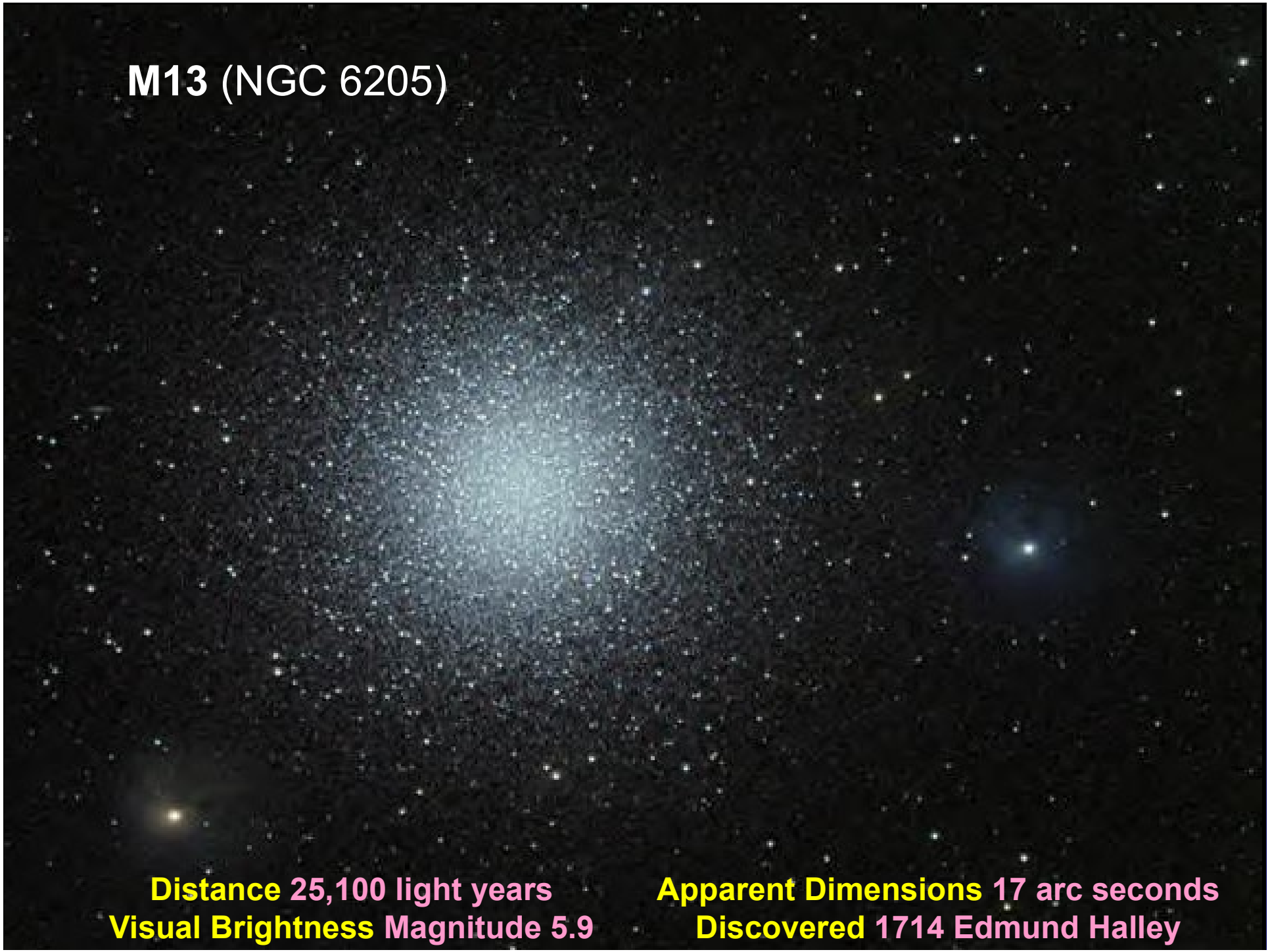
Variable Star
Mag 6.4 → 13.8

Double Star
Mag 5.9 & 5.9

Double Star
Mag 5.3 & 6.5

Double Star
Mag 3.2 & 5.4

Double Star
Mag 5.0 & 5.1


M13 (NGC 6205)
Distance 25,100 light years
Visual Brightness Magnitude 5.9
Apparent Dimensions 17 arc seconds
Discovered 1714 Edmund Halley

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 Societies

- **Guildford AS** *Lecture Theatre L, Uni of Surrey*
  - Thursday 12th July, 7.30 p.m.
    - » **AGM: Members Only**

Meetings at Local Societies

- **Farnham AS** *Aldershot Cricket Club*
  - Tuesday 10th July, 7.45 p.m
    - **American Astronomy before Columbus,**
      - **Mark Rumsby, Farnham AS**
    - **Clash of the Titans**
      - **Rory Fenner, Farnham AS**

Talks at Local Astro Societies

- **Croydon AS** *Royal Russell School, Coombe Lane, Croydon*
  - Friday 6th July, 7.45 p.m.
    - **TBA**
  - Friday 13th July 7.45 p.m.
    - **ExoMars**
      - **Prof Andrew Coates**
        - » MSSL
    -

Talks at Local Astro Societies

- **Ewell AS** *Nonsuch High School for Girls, Cheam*
  - Friday 13th July, 7.45 p.m.
    - **TBA**
      - Neil Philipson

Astronomy on TV

The Sky at Night

Outback Astronomy

Earlier this year news broke that astronomers had seen the Cosmic Dawn: the moment the first stars formed. Chris Lintott travels to the Murchison Radio-astronomy Observatory to find out how the discovery was made, and what else these extraordinary telescopes can tell us about the universe.

Sunday	8th July	BBC 4, 10.00 pm
Thursday	12th July	BBC 4, 7.30 pm

(*please check www.radiotimes.com www.bbc.co.uk/skyatnight)*


"That's all Folks!"