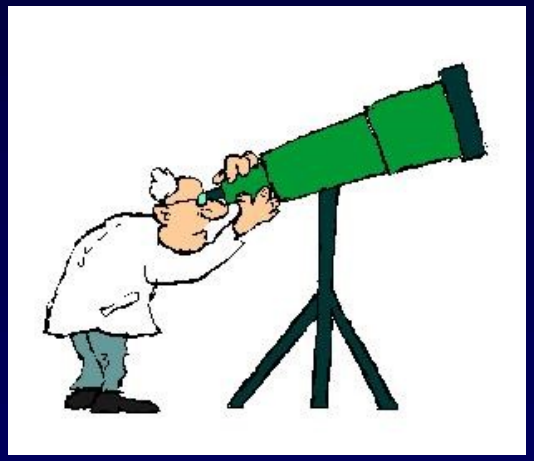
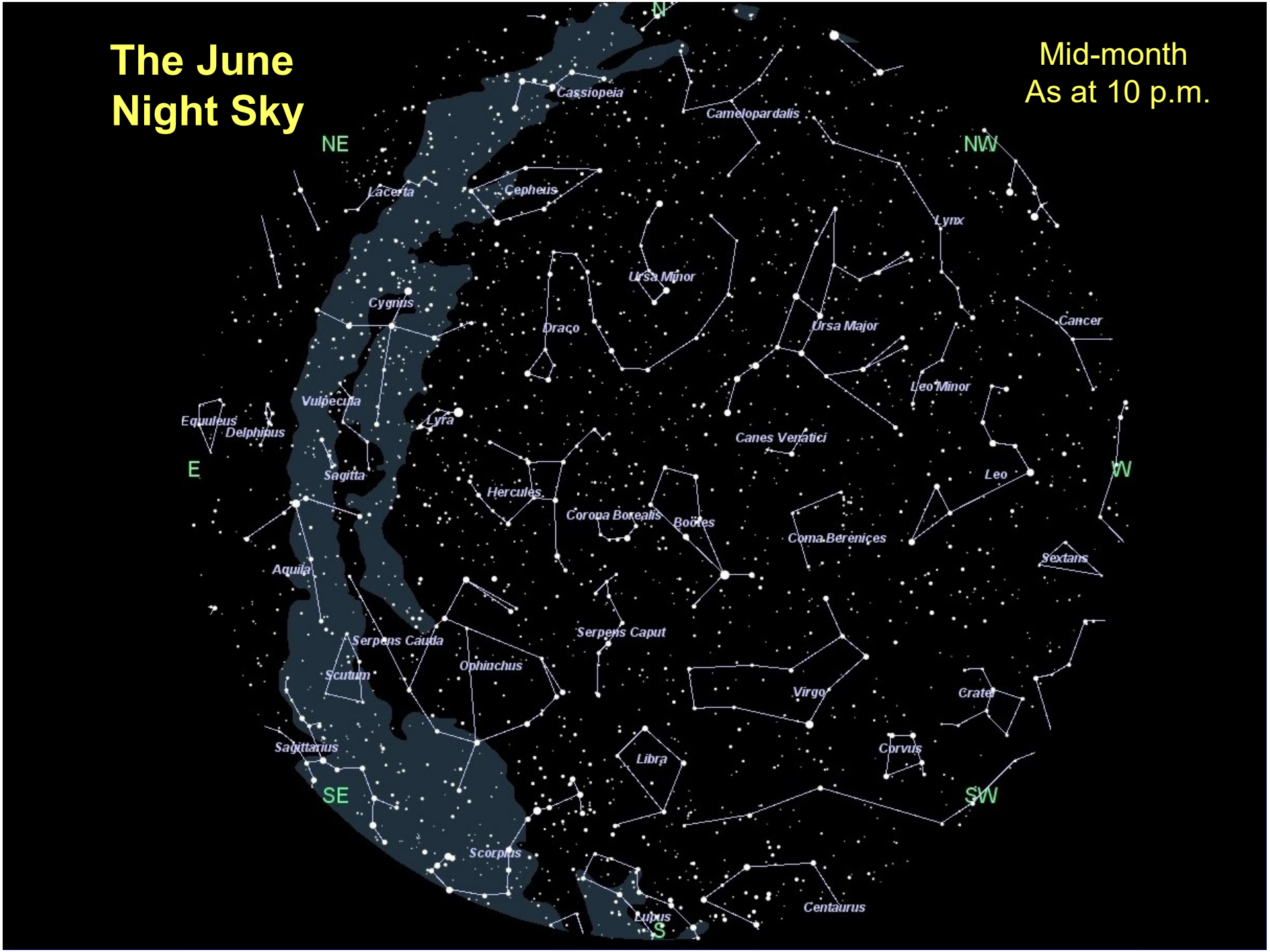
What's Up!

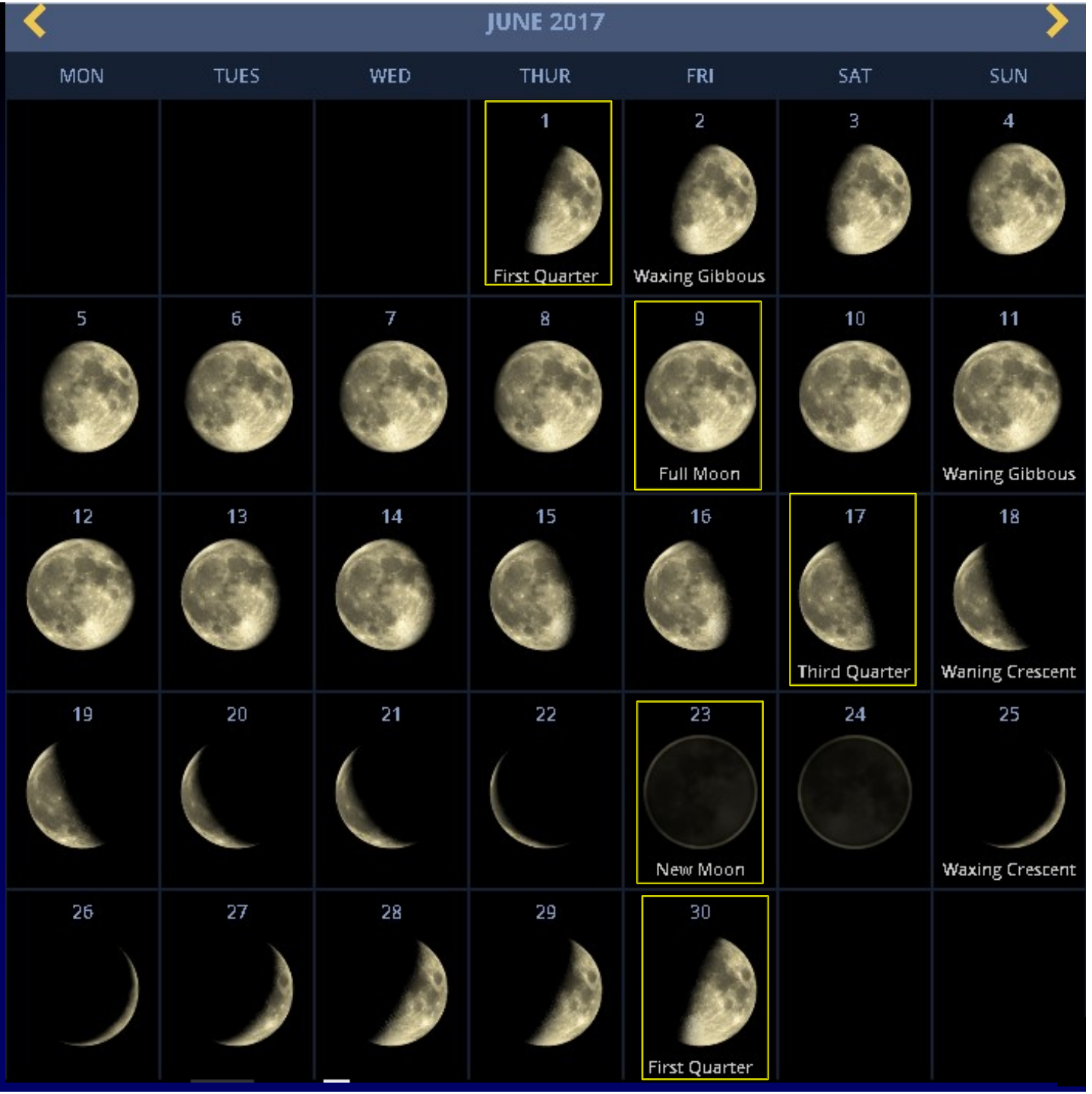
For June 2017



BROOKLANDSRADIO
ONLINE
The Sound of Surrey


The June
Night Sky
Mid-month
As at 10 p.m.
N
NE
NW
E
W
SE
SW
S
Cassiopeia
Camelopardalis
Lacerta
Cepheus
Lynx
Ursa Minor
Cygnus
Draco
Ursa Major
Cancer
Leo Minor
Vulpecula
Equuleus
Delphinus
Lyra
Canes Venatici
Sagitta
Leo
Hercules
Corona Borealis
Boötes
Coma Berenices
Sextans
Aquila
Serpens Caput
Serpens Cauda
Ophiuchus
Scutum
Virgo
Crater
Sagittarius
Libra
Corvus
Scorpius
Centaurus
Lupus

The Moon in June



What's Up - Planets

- **Mercury**
  - a dawn object at start of the month but an evening object by the end. For 1st half of month look in the East-North East, but you need a good flat unobstructed horizon. Towards end of month it'll be very low in North West, 20-30 minutes after sunset, at Mag -1.0.
- **Venus**
  - A brilliant morning object at Mag -4.3 low in the East, visible from 4 a.m. till sunrise. Approximately 50% phase when seen through good binos or a telescope.
- **Mars**
  - Not visible this month

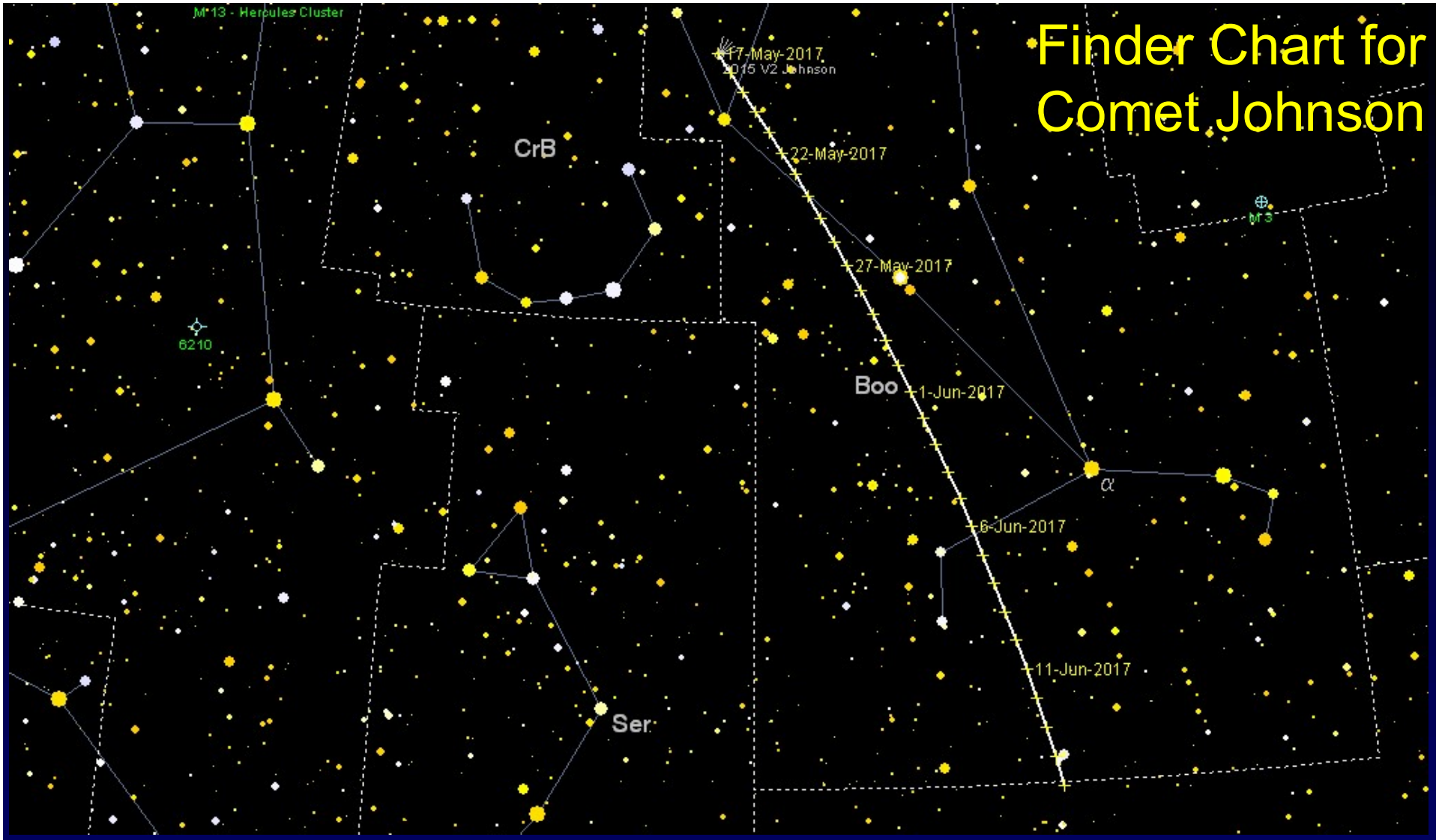
What's Up - Planets

- **Jupiter**
  - Visible all evening. Dimming to Mag -2.0 by end of month it still dominates the night sky. Easily visible as a disc in good binoculars and small telescopes.
- **Saturn**
  - A late evening mag. 0.0 object now in Ophiucus in South West. At opposition on 15th, i.e due South at 01.00hrs BST. The rings noticeably brighten a few days either side of this date - a phenomenon known as 'Seeliger effect'. Relatively low at 15°, it's highest above horizon.
- **Uranus** - Not visible this month
- **Neptune**
  - At Mag +7.9 in Aquarius, not visible to naked eye, but can be found in telescopes low in ESE in the early hours.

Events of Interest in June

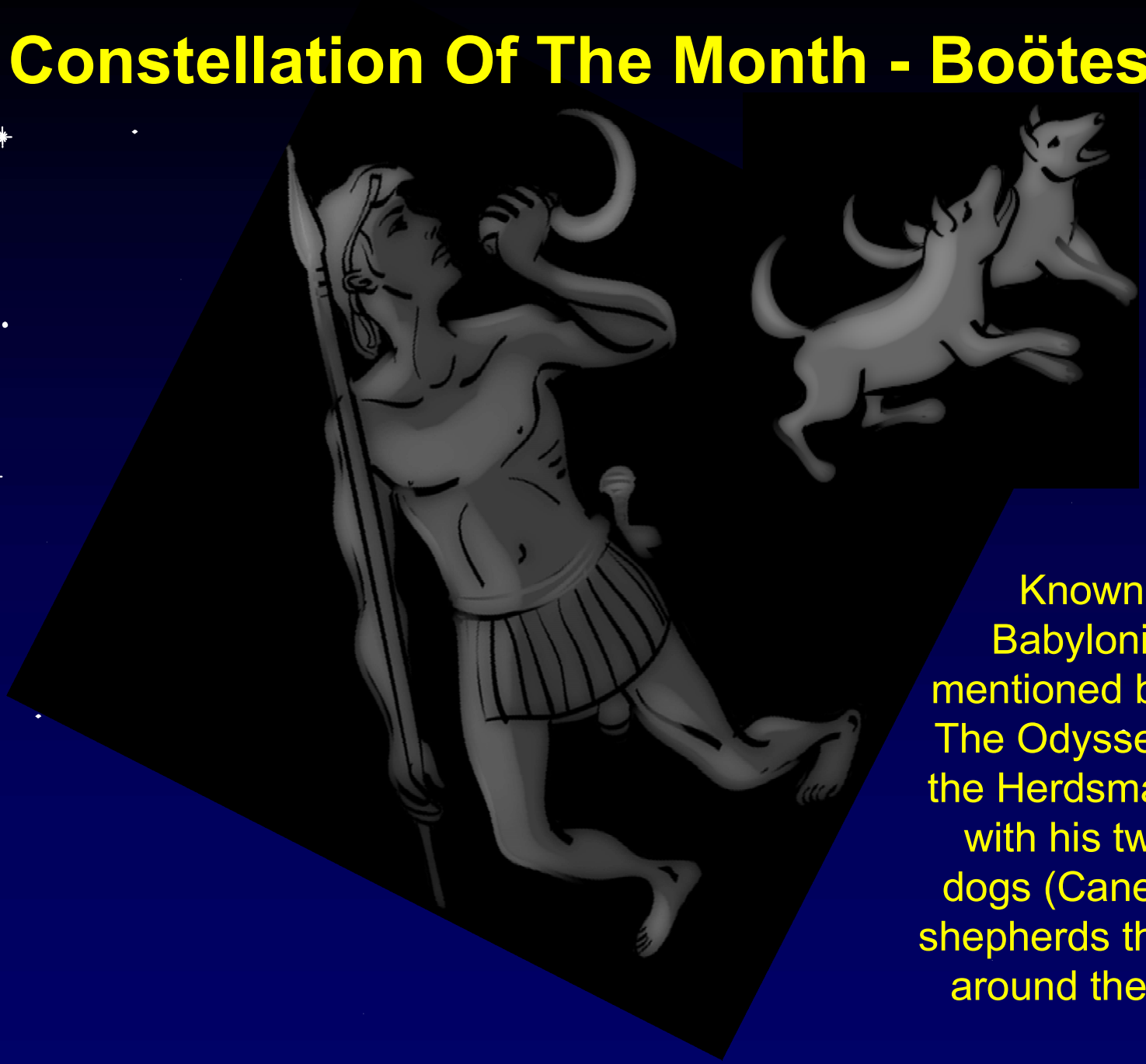
- **3rd/4th** Jupiter just over a degree south of the Moon, closest in the early hours of 4th
- **5th** Jupiter's moons Europa & Io transit & cast their shadows onto the disc, from 7.30 pm to 01.15 
- **6th** Comet C/2015 V2 Johnson is 5° from Arcturus in the early hours. Comet should be Mag +6.7 
- **9th** Saturn easy to find, about 2° south of full Moon.
- **21st** Venus & Moon make a nice bright pair, just 4° apart, about an hour before sunrise
- **27th** Max of Boötid Meteor Shower, but few expected
- **28th** Mercury & Mars <1° apart, low in South West, 20 mins after sunset 
- **30th** Jupiter only 6° from 1st quarter Moon

Finder Chart for Comet Johnson



- The comet is at magnitude 6.7, but has a low surface brightness, which means it'll not be that easy to find. Better with a small telescope than binoculars, but still possible with the latter.
- Visible as a small greenish fuzzy blob.

Constellation Of The Month - Boötes

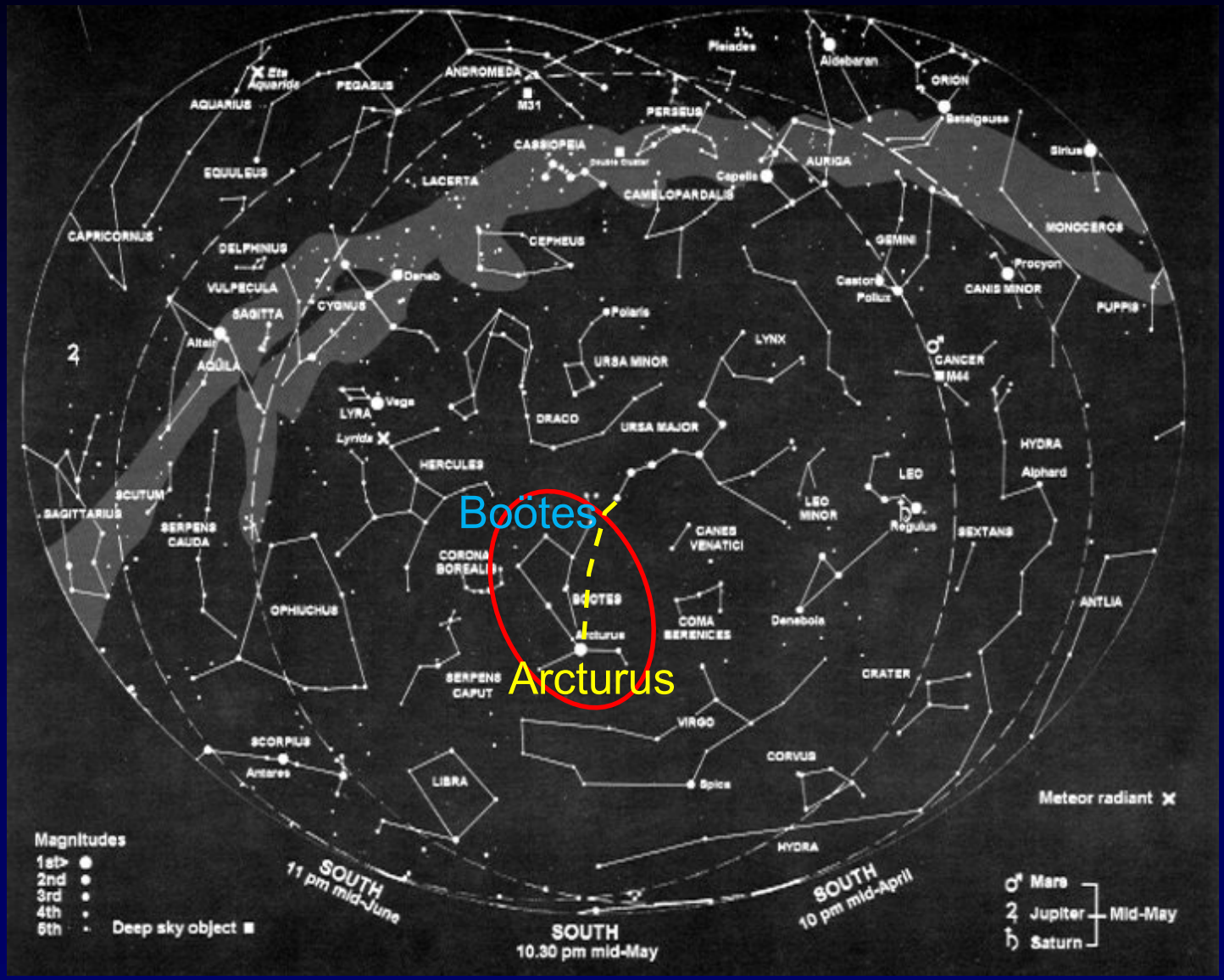


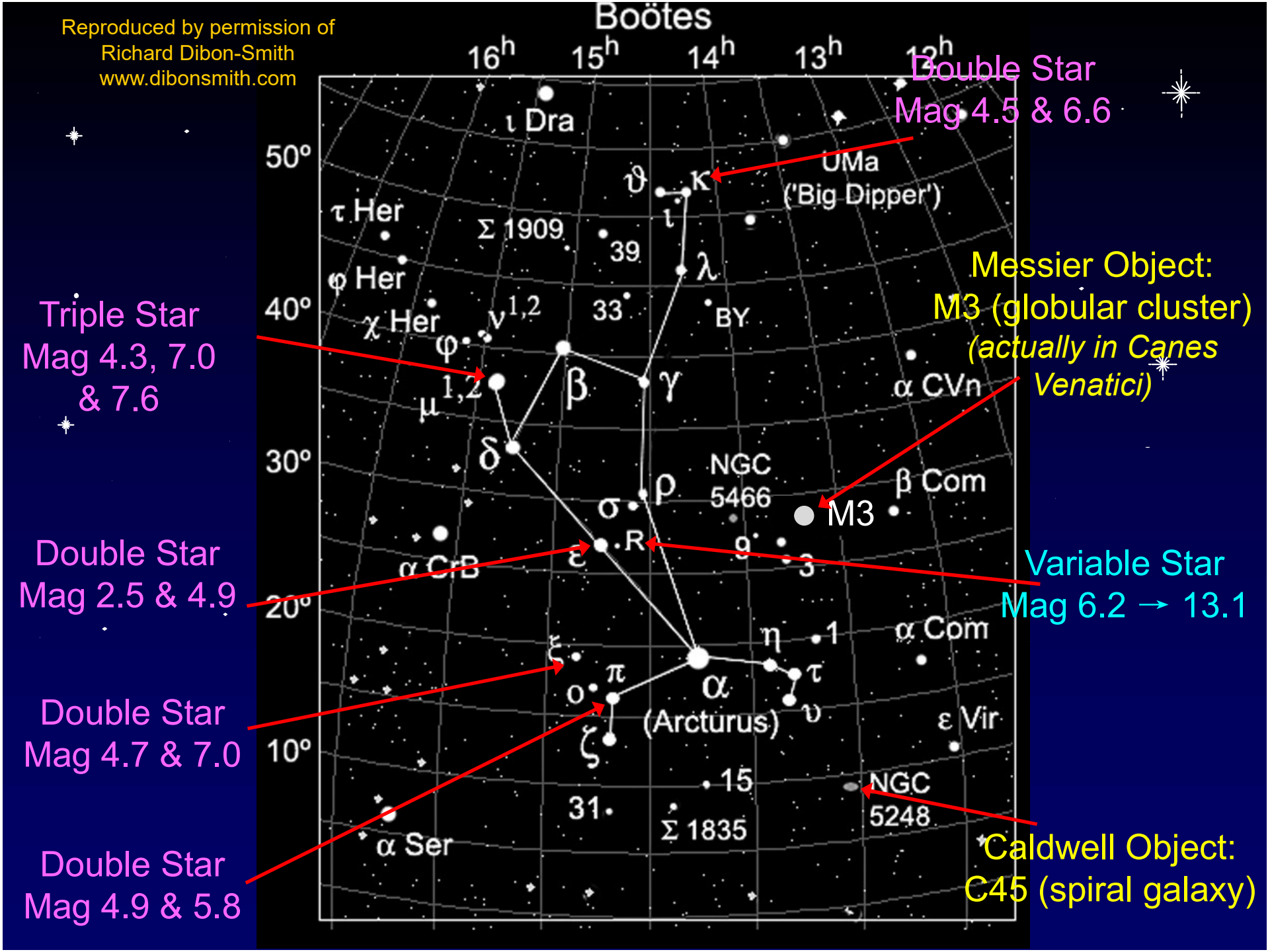
Known by the Babylonians and mentioned by Homer in The Odyssey; Boötes - the Herdsman, together with his two hunting dogs (Canes Venatici) shepherds the two bears around the Pole Star.

Boötes

- Boötes is one of the largest constellations but is perhaps not one of the best known, nor easiest to find.
- Best way to locate it is to make your way to bright orange/red Arcturus (the brightest star in Boötes) by following a curving line down from the tail of the Plough.
- Boötes doesn't contain any Messier objects, however one of the northern hemisphere's best known globular clusters, M3, is close by, easily found half-way between Arcturus and Cor Caroli, the main star in Canes Venatici.
- One of Patrick Moore's Caldwell Objects lives here
  - C45, a spiral galaxy
- The constellation is home to several really attractive double stars.

Whereabouts can I find it in the night sky?

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Boötes
16h
15h
14h
13h
12h
50°
40°
30°
20°
10°
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τ Her
φ Her
χ Her
Σ 1909
39
33
BY
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μ1,2
β
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UMa
('Big Dipper')
α CVn
NGC
5466
M3
β Com
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α CrB
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α Com
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α
(Arcturus)
τ
υ
ε Vir
ζ
15
31
Σ 1835
NGC
5248
α Ser
Double Star
Mag 4.5 & 6.6
Messier Object:
M3 (globular cluster)
(actually in Canes
Venatici)
Triple Star
Mag 4.3, 7.0
& 7.6
Double Star
Mag 2.5 & 4.9
Variable Star
Mag 6.2 → 13.1
Double Star
Mag 4.7 & 7.0
Double Star
Mag 4.9 & 5.8
Caldwell Object:
C45 (spiral galaxy)

M3 (NGC 5272) **Globular Cluster**

Distance 33,900 light years
Visual Brightness Magnitude 6.2

Apparent Dimensions 19 arc minutes
Discovered 1764 Charles Messier

C45 (NGC 5248)

Spiral Galaxy

Distance 74M light years
Visual Brightness Magnitude 10.2

Apparent Dimensions 6 arc minutes
Discovered 1784 William Herschel

Meetings at Local Societies

- **Guildford AS** *Griffiths Lecture Theatre , Uni of Surrey*
  - Thursday 1st June, 7.30 p.m.
    - "Planets and Pulsations: The New Keplerian Revolution"
      - Professor Donald W Kurtz
        - » Uni of Central Lancashire
- **Farnham AS** *Aldershot Cricket Club*
  - Tuesday 13th June, 7.45 p.m.
    - "New Horizons and the exploration of Pluto"
      - Kevin Pretorius
        - » Farnham AS

Talks at Local Astro Societies

- **Croydon AS** *Royal Russell School, Coombe Lane, Croydon*
  - Friday 9th June, 7.45 p.m.
    - "In The Beginning"
      - Konrad Malin-Smith, Croydon AS
  - Friday 23rd June, 7.45 p.m. -
    - "Introduction to the Antikythera Mechanism"
      - Pauline Gorman, Croydon AS

- **Ewell AS** *Nonsuch High School for Girls, Cheam*
  - Friday 9th June, 8.00 p.m.
    - "Sun, Sea and Smoke"
      - Graham Bryant, Hampshire AG

Astronomy on TV

- **The Sky at Night**
  - *Inside God's Observatory*
    - This episode comes from the heart of an organisation that has had a massive impact on astronomy: the Vatican Observatory. It covers the role of the Vatican in modern astrophysics, researching the first moments of the Universe and joining the search for extraterrestrial life.

Sunday	11th June	BBC 4, 10.00 pm
Thursday	15th June	BBC 4, 7.30 pm

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

June's Shoutout for Schools

- www.spacelink.org
- free webinar events for Key Stages 3-5
  - 5th June: "Tales from Cometary Tails"
    - Oliver Price (UCL, Mullard Space Science Laboratory)
  - 22nd June: "Getting to Know Our Explosive Sun"
    - Professor Lucie Green (UCL, Mullard Space Science Lab)
  - 29th June: "How to Build your Own Lightsaber"
    - Dr Martin Archer (Queen Mary University)
- Get Space IV (free STEM event, suitable for Years 5-9)
  - July 4th 10 am to 3 pm at Broadwater School, Guildford
  - Space-themed Talks and Activities
    - includes Britains 1st Astronaut - Helen Sharman