What's Up!

For October 2017
The October Night Sky

As at 10 p.m. mid-month
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<td><strong>Waxing Gibbous</strong></td>
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The Moon in October

- **2nd**: Waxing Gibbous
- **5th**: Full Moon
- **9th**: Waxing Crescent
- **12th**: Third Quarter
- **16th**: Waning Crescent
- **19th**: New Moon
- **23rd**: First Quarter
- **27th**: Waning Crescent
- **30th**: Waxing Gibbous
What’s Up - Planets

• **Mercury**
  - emerges into evening sky late in the month, but poorly placed.

• **Venus**
  - Still a brilliant morning object at Mag -3.8 low in the East, but fading as month wears on

• **Mars**
  - Improving as a morning object
What’s Up - Planets

• **Jupiter**
  – Not visible this month

• **Saturn**
  – Still on show as an early evening object, low in South Western sky.

• **Uranus**
  – Visible all night at Mag +5.8 in Pisces

• **Neptune**
  – Telescopic object at Mag +7.8 in Aquarius, best around midnight
Events of Interest in October

- **5th** Venus, Mars and Sigma Leonis form tight triangle
- **7th** Venus and Mars less than half degree apart
- **14th** Waning crescent Moon will be 5° from M44 Beehive Cluster, low in North East, best at 2 a.m.
- **18th** Brilliant Venus will be just 3° from thin (2%) crescent Moon.
- **21st** Peak of Orionids Meteor Shower:
  - dust particles left over from Comet Halley
  - fast meteors, some with persistent train
  - theoretical (ZHR) 25, reality maybe 10 per hour
  - favourable Moon
  - best in early hours, but can look East on evenings of 20th/21st/22nd
- **24th** Saturn just 3.5° from waxing crescent Moon
October’s Suggested Constellation – but which?
October's Suggested Constellation - but which?

Cassiopeia
October’s Suggested Constellation

**CASSIOPEIA**

Cassiopeia is on the opposite side of the Pole Star from The Plough. It consists notably of a group of five very bright stars forming a W. Two of these, Ruchbah and Caph, are navigation stars. This constellation contains about 60 stars visible without the aid of a telescope. It is named after Cassiopeia, wife of Cepheus, King of Ethiopia, and mother of Andromeda who was saved from a sea monster by Perseus (Greek Mythology).

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

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Where is it?

Almost overhead tonight at 10.00 p.m.
Messier Objects in Cassiopeia

**M52**
- **Distance**: 5000 light years
- **Visual Brightness**: Magnitude 7.3
- **Apparent Dimension**: 13.0 arc minutes
- **Discovered**: 1774 by Charles Messier

**M103**
- **Distance**: 8500 light years
- **Visual Brightness**: Magnitude 7.4
- **Apparent Dimension**: 6.0 arc minutes
- **Discovered**: 1781 by Pierre Méchain
Using Cassiopeia

- Finding North
  - Cassiopeia is circumpolar, so will always be above the horizon
  - If Ursa Major & Minor are obscured by clouds then you can make a rough judgement using Cassiopeia
Using Cassiopeia

- You can find your way to the Andromeda Galaxy (M31) using Cassiopeia
- And also to the Double Cluster in Perseus
Meetings at Local Societies

• Guildford AS  *Griffiths Lecture Theatre, Uni of Surrey*

  – Thursday 5th October, 7.30 p.m.
    – From Quark to Cosmos
      » Prof Ian Shipsey, Oxford Uni
  – Sputnik in Context (abridged)
    » John Axtell
Meetings at Local Societies

- Farnham AS Aldershot Cricket Club
  - Tuesday 10th October, 7.45 p.m.
    - Newtonian Cosmology
      - Dr David Lewis
        » Farnham AS
Talks at Local Astro Societies

- **Croydon AS**  
  *Royal Russell School, Coombe Lane, Croydon*  
  - Friday 13th October, 7.45 p.m.  
    - "High Resolution Astro Imaging"  
      - Damien Peach  
  - Friday 27th October, 7.45 p.m. -  
    - "Space Dogs"  
      - Caroline Bevis, Croydon AS

- **Ewell AS**  
  *Nonsuch High School for Girls, Cheam*  
  - Friday 13th October, 8.00 p.m.  
    - "Journey to the Centre of the Earth"  
      - Dr. David Whitehouse
Other Talks/Events in the Area

• University of Surrey, Department of Physics
  *Austin Pearce 3, Uni of Surrey, Guildford*
  - Friday 4\textsuperscript{th} October, 6.30 - 8.00 p.m.
    *"Sci-Fi Public Talk"
      - Dr. Annika Lohstroh, Prof Ben Murdin

- Tuesday 31\textsuperscript{st} October, 5.30 - 9.00 p.m.
  *"Seeing the Unseen" (Dark Matter Day)*
  - Talks, Stalls, Mobile Planetarium & Stargazing
Astronomy on TV

• The Sky at Night
  – Something Is Wrong With The Moon!

• The team explores some of the latest discoveries about our lunar neighbour that are helping us learn more about its origins and history. Plus they meet a research team that may have made a unique discovery - a Moon orbiting an exoplanet

Sunday 8th October  BBC 4, 10.00 pm
Thursday 13th October  BBC 4, 7.30 pm

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