



NEWSLETTER

***September - November
2018 Issue 184***



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Where is the International Space Station?

In this newsletter, see if you can find the ISS! Look and pay attention to the small print. ISS will appear in all the future newsletters during its deployment.

CAS Newsletter Formats

CAS newsletter publishing occurs four times a year. With information on Society events, activities, reports, forthcoming astronomical events, and current phenomena. All CAS members have the invitation if they want to contribute. Send your original material to the CAS publications officer by email. The newsletter is available online to members. *email: publications.officer@cardiff-astronomical-society.co.uk*

CAS Newsletter Publication Dates

The next newsletter 184 will be published just as the nights are getting longer. Remember, members' articles are what create our CAS newsletter. We all say a 'big thank you' for all contributors to current & past issues. The CAS newsletter publishes at the first Society meeting of each quarter. Your Newsletter Editor welcomes feedback, articles, photos and ideas for publication! Can you write about current events?

Future Newsletter Previews:

Follow the Comet Panstarrs (C/2017) K2

Digital Imaging of Meteors

Therapeutic Benefits of Astronomy

How is 3D Printing helpful for Astronomy?

Stellarium Software Guides a Telescope

Members' Articles and Photographs

Get it down in print! Everyone has a story in them, so why not now pen yours? The Cardiff Astronomical Society is wanting articles for future editions of the newsletter. It can be on any aspect of astronomy, spaceflight or even science fiction. It needs to relate to some aspect of astronomy or cosmology. CAS members would love to engage with your articles. Your article can be between 250 - 1000 words per newsletter. So if you have a story to tell then feed it to the Editor.

Photo Images for Inclusion: write a few words and attach an image to your email. CAS would like your astrophotography and event photos. All images should be with the time and date of the shot. Other information may be added - giving location and event. *Unless stated all images in the newsletter are from CAS members. Stonehenge Sunrise by Editor*



Photo: Sunrise on iPhone 8
Stonehenge 14th April 2018

Buy and Sell Astronomy Gear

CAS offers Society members and the general public the opportunity to advertise and sell their astronomy equipment on their website. It must be noted, however, that CAS is expressly not recommending the suitability or functionality of any equipment that is offered for sale on the CAS website. If you would like to have your astronomical equipment offered for sale on the CAS website please send an image, description, price required and a contact telephone number and/ or email address to: *webmaster@cardiff-astronomical-society.co.uk*

CAS Solar Viewing at Dyffryn Gardens Observatory

Every Saturday morning CAS opens the Observatory next to the Cory Education Centre in Dyffryn Gardens, for solar viewing. When the morning is sunny, the roof is opened and our 11" Celestron telescope is used. This telescope gives splendid views on our nearest star in all it's splendor. See page 16.

The front picture on page 1 is of CAS 12" SkyWatcher Dobsonian Telescope being used by our Observation Manager - Bob Biss.



Bob has just finished painting the outside of the observatory, so it is looking good. At the time of writing sunspots are appearing and it is exciting to see!

Most Saturday morning several visitors to the gardens estate, visit the observatory. Just recently one also carried along their telescope for a tutorial and help with using their telescope. They signed the visitors book before they took their leave.

The solar viewing here is just one part of the observatory functions. Why not arrange time and transport to come along to CAS Star Parties - the 1st one is September 7/8 depending on weather - see page 10.

CAS Telescope Workshop at the Observatory

Saturday mornings at the observatory is also a telescope workshop for members. This has been running informally for some years. Many CAS members have telescopes - I do wonder if we can encourage members to bring them out this autumn and enjoy the awesome sights on offer in our nights skies?



At the observatory, 3D printed parts are on offer from some of our members. Parts have been printed include, brackets to hold 'SynScan' controller and solar filter holders etc.



Astro Photography on Saturday mornings takes place as Solar views allow. Bring your own camera to attach to one of CAS telescopes - see page 16.



***CAS on twitter, follow @CardiffAS**

***CAS on Facebook at <http://www.facebook.com/CardiffAS>**

***Join CAS Observatory Group (closed group) Get the latest Observatory news and events. When the viewing weather is best at the observatory you will be here 1st.**

***CAS Newsletter Group (closed group) - CAS Social (open group) keep up-to date with CAS news and reviews. Give your opinion in a place where it will matter for CAS.**

***CAS Astro Photography Group (open group) Updated regularly and maintained by Stephen Webber of CAS**

Cardiff Astronomical Society Meeting Groups

Katherine Compton

In response to suggestions made at the Society's last AGM and also the positive views expressed by those filling in the new membership application form, we are starting a series of informal gatherings for members to discuss astronomical topics.

These sessions will be held before scheduled talks (6:45pm – 7:30pm) and will take place at the back of the lecture theatre. If members want to continue the session after the talk there is a coffee area on the ground floor or the nearest Wetherspoons is just down the road.

The first of these sessions will be held before the talk on September 20th and will be on 'Aligning your telescope'. We hope to see members with a range of expertise attend this, from those who have just bought their first telescope to those with many years experience who can help the beginners. We understand this topic will take more than 45 minutes to cover so we may need more than one discussion session and certainly a practical session at Dyffryn Gardens.

If you are interested but are unable to attend you can email me at Membership.Secretary@cardiff-astronomical-society.co.uk and I can make sure you are told about any follow up sessions.

Please also email me for any topics you would like to see covered in the future. They can be about practical things like observing/astrophotography or something more theoretical like discussing good articles you have read or something you would like to know more about. Maybe after your discussions one of you could write an article for the newsletter and share your knowledge.

Remember, this is your society so please ensure it meets your needs by letting us know what you would like.

membership.secretary@cardiff-astronomical-society.co.uk

Solar Observing Brecon Beacons

Feras Tuma

We had probably the best ever outreach event I can remember on Saturday 23rd June.2018. The weather was absolutely stunning, clear skies mostly a refreshing change from the rain of last year. There was a great turnout from CAS, we had six telescopes running, white light and hydrogen alpha. We



were able to demonstrate a large line of sun spots and in H Alpha some Plages could be seen.

Steve Weber managed to project the sun on a screen. Mike Foley attended and kept many families inspired with his large print photographs. A large and diverse group showed interest, our youngest observer was aged 3 incredibly bright able to name all the dwarf planets to a couple aged 95 keen to get involved. We had a family attend and after viewing



the sun rushed back to bring their keen grandfather from a nursing home to have a look through. Meanwhile a Scottish dancing event was running simultaneously.

CAS member Katrin did some dancing and some of the performers joined in the observing!



I.T. Editing the CAS Handbook 2018



This Compaq nx7010 laptop has been used with its original Microsoft XP SP2 operating system since 2003. Originally its battery lasted 3.5 hours. Now the same original battery will last 3.2 hours. It is editing CAS handbook 2018 today using Publisher 4.6. It never overheats and seems to be working normally. It runs MS Office and Adobe Acrobat to create PDF files. All CAS Almanac pages with images and text in this newsletter are generated on this laptop.

How you can support the Cardiff Astronomical Society when shopping online

Peter Crabb

The Society has recently signed up to the 'easyfundraising' scheme which exists to help charities and other good causes to generate additional funds. By signing up to the scheme and choosing the Cardiff Astronomical Society as the cause you wish to support, every time you shop online via the scheme at one of 3,300 retailers - including Amazon, Argos, Debenhams, eBay, Expedia, John Lewis, Next and Sainsbury's - a donation will be made to the Society and it won't cost you a penny extra.

It's really simple to start supporting the Society via the easyfundraising website:

<https://www.easyfundraising.org.uk/causes/cardiffastronomicalsociety/>

As you shop online, your donations will be collected by easyfundraising and automatically sent to the Society. It couldn't be easier!

There are no catches or hidden charges and the Society will be really grateful for your donations, but it is entirely up to you whether you wish to support the Society in this way.

The Society has already received over £50 from the easyfundraising scheme.

IMPORTANT TIP - When someone signs up to this scheme as a donor a tick box appears which says: "Please send me helpful hints, tips, tools and other fundraising information to help me raise even more". The default position is that the box is ticked which means that donors will receive frequent reminder emails from easyfundraising who are very keen to maximise the donations received by the good causes. This will, undoubtedly, irritate some people!

To avoid the problem, donors should, when signing up, un-tick the above box. Alternatively, if the box was left ticked when signing up, people can log in to the easyfundraising website and open up My Account (on the right of the top menu bar). In the new webpage that appears there is a section entitled "My account settings" which includes "Change my preferences". Going to that reveals several email tick box settings which can be un-ticked!



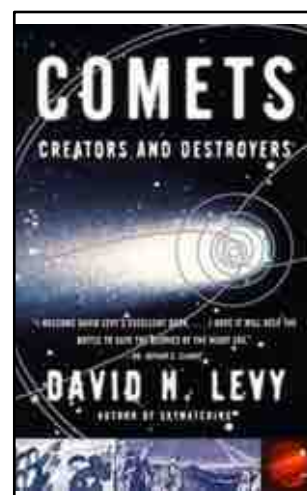
Book review from the Librarian Katrin Raynor-Evans

Comets: Creators and Destroyers by David Levy

To promote the Joan Thomas library further to our members, I will be writing quarterly reviews on books (which can be found in our library) for the newsletter. This month's review is Comets: Creators and Destroyers by David Levy.

A few of us lucky members will remember gazing at Halley's Comet in 1986 or more recently, Hale-Bopp in 1997. I'll never forget when I was a teenager, gazing at Hale-Bopp every night when the weather permitted, wondering what and where this mysterious object had come from. This book can answer those questions.

Comets: Creators and Destroyers is a paper back issued in 1998 and written by David Levy. Levy is one of the lucky comet spotters who discovered a comet with Gene and Carolyn Shoemaker in 1990 and the comet was named Shoemaker-Levy after them.



I must say I thoroughly enjoyed reading this book. It does not contain detailed hard science which makes for easy but informative reading and the photographs and illustrations used are excellent. It is just a shame they aren't in colour.

Levy explains over fifteen chapters the origin of comets, how they caused the fate of the dinosaurs and comets which have visited our skies over the centuries. He goes into detail about our search for comets and asteroids and what the statistics tell us which is surprising.

He discusses over the centuries, the impact these comets have had on humans. Some believing that they are UFO's or extra-terrestrials...39 members of the Heaven's Gate cult committed suicide in San Diego when Hale-Bopp was visible because they thought there was an extra-terrestrial spacecraft following the comet which they could reach. Other people throughout history had thought comets would cause death to humanity by poison from noxious gases.

He plunges into the future of comets and how they may decide the fate of our world. We would only have a few small matters of tsunamis, acid rain and global fires to contend with... would we survive an enormous comet impact? Read this book to find out...

Paperback: 260 pages. Publisher: Simon and Schuster; Original ed. edition (26 Jan. 1996)
Language: English, ISBN-10: 0684852551

The Joan Thomas Library

The Society has a new Librarian, Katrin Raynor-Evans. Members wishing to borrow or return items held by the Library then please email: librarian@cardiff-astronomical-society.co.uk

A current book list is on the CAS website. Please check to see if you have any outstanding books to return. Do contact the Librarian to arrange a collection of any CAS library book.



STARGAZING WITH DARK SKY WALES AND THE CARDIFF ASTRONOMICAL SOCIETY

Friday October 26th, 2018 Dark Sky Co-ordinating CAS - DSW

For the first time we will have the combined expertise and knowledge of both Dark Sky Wales and the Cardiff Astronomical Society in one event.

Come and enjoy a night of stargazing activities, including a tour of the night sky in our mobile planetarium with Dark Sky Wales, and fascinating talks from members of the Cardiff Astronomical Society. If the skies are clear you can also view the award winning dark skies of the Brecon Beacons National Park through a selection of telescopes.

If the weather is against us, this event will still go ahead with the presentations and mobile planetarium.

To find out more about Dark Sky Wales visit www.darkskywalestrainingservices.co.uk

www.facebook.com/darkskywales/

To find out more about Cardiff astronomical society visit

<http://www.cardiff-astronomical-society.co.uk/>

Tickets are £15 which includes Coffee and Welsh Cake to get your evening off to a great start. CAS members not volunteering will need to pay entrance fee.

This event starts at 7.00pm, and there are set activities, so please ensure you arrive on time as not to miss parts of the experience" Public Events Organiser - Theresa Cooper

Public.Events.Organiser@cardiff-astronomical-society.co.uk



The Society for Popular Astronomy (SPA) teams up with CAS in Cardiff

Saturday, 29th September 2018 at the University of Cardiff 's Queen's Building where the Society's fortnightly talks are held - see map. All members of the Society are encouraged to attend. In addition, members of the public who are interested in joining the SPA or CAS will be welcome.

Doors will open at 12.30 p.m. and there will be three talks:

Professor Ian Robson (Royal Observatory, Edinburgh): "The Changing Face of Astronomy"

Professor Patrick Sutton (University of Cardiff): "The Detection of Gravitational Waves"

Dr Megan Argo (University of Central Lancashire): "When Galaxies Collide"

The afternoon session will close by 5.00 p.m.

Perseid Meteor Shower 27th August 2018

Katrin Raynor-Evans

I was lucky enough to volunteer with Dark Sky Wales on the night of the peak of the Perseid's. It had rained all day but come evening, it was bright sunshine and clear blue sky. We were on our way to the Brecon Beacons Visitor Centre, a designated dark sky area to set up for an evening of meteor spotting and telescope viewing with approximately 90 people.

The Dark Sky Wales team got to work setting up the scopes, opening the observatory, inflating their amazing planetarium (which can seat 40 people!) and preparing the classroom for a talk on comets and meteors.



Whilst we were all waiting for it to get dark, members of the public could enjoy a telescope lesson with Allan Trow, a talk on Celtic mythology in the planetarium with Martin Griffiths and a lecture from Andy Burns on the formation and origin of comets and what meteor showers are.

There were plenty of questions to answer and lots of hands on activities to keep everyone's interest piqued. There was an

impressive collection of meteors on show which Nick Howes had let us borrow for the evening. Amongst the collection was a piece of glass from a shattered window which exploded when a superbolide hit Chelyabinsk in 2013. Fascinating stuff!

As night fell, the Milky Way became visible, Mars rose in the sky and we started to see a few meteors whizzing by which resulted

in a lot of ooohs and aaahs from the public. Whilst the number of Perseid's falling was a little

disappointing, the night sky was unbelievable and we were able to enjoy a feast of other stunning summer objects to gaze upon including the North America Nebula, Andromeda and numerous constellations such as Delphinus, Ursa Major and Lyra.

I was manning the camera which meant I was lucky enough to capture a few amazing photos of the meteors from the Perseid's shower as well as the Kappa Cygnids, which is a minor meteor shower that also occurs every August.

As we were packing up and leaving I spotted one of the biggest and brightest Perseid's I had seen which was a perfect and memorable end to a rather chilly and incredible night with the Dark Sky Wales team.

Dark Sky Wales and the Cardiff Astronomical Society are running a joint event on the 26th October 2018 at the Brecon Beacons Visitor Centre. Please see page 9 of this Newsletter

CAS Lectures

6th September	The Wonderful 20th Century - How Astronomy was Transformed	Dr Allan Chapman, University of Oxford
20th September	Going around Uranus with the Fairies	Dr Jane Clark, Cardiff Astronomical Society
4th October	Shakespeare & Astronomy	Professor Michael R Robinson, Imperial College London
18th October	Spectroscopy	Marc Delaney, Cardiff Astronomical Society
1st November	The Solar System	Dr Jane Greaves, Cardiff University
15th November	Astro Photography	Peter Williamson, Solarsphere
29th November	Citizen Science Project	Dirk Froebrich, University of Kent

Our talks are hosted by the School of Physics and Astronomy

Cardiff University Queen's Buildings, The Parade, Cardiff CF24 3AA - All talks start at 7.30 p.m. and all attendees are kindly invited to sign the visitors' book upon arrival.

CAS Star Parties

The Society's Star Parties are held at our own Observatory in the grounds of Dyffryn Gardens. This event takes place whatever the weather.

Anyone interested in attending a Star Party should first contact Kath Compton the Membership Secretary.

The Star Parties are aimed at beginners to astronomy of all ages. They consist of talks, demonstrations of the night sky in real time or on Stellarium and an introduction to the various types of telescopes. The Star Parties are ideal for our junior members and anyone else who wants to learn their way around the night sky. Each event will start with a general night sky tour. We concentrate on the brighter Messier objects, the Moon and bright planets.

There will be at least two (usually more) CAS members on duty. Don't forget it's YOUR society, so come along and have a good time!

membership.secretary@cardiff-astronomical-society.co.uk

7th September	Friday	19.30-21.30	Dyffryn Gardens
12th October	Friday	19.30-21.30	Dyffryn Gardens
9th November	Friday	19.30-21.30	Dyffryn Gardens
7th December	Friday	19.30-21.30	Dyffryn Gardens

Almanac June to August 2018

Sun Rise/Set & Twilight

Compiled by:
Michael Boniface CAS

September

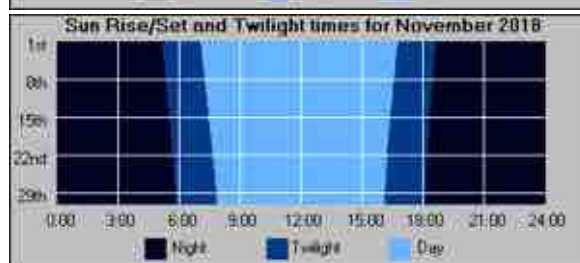
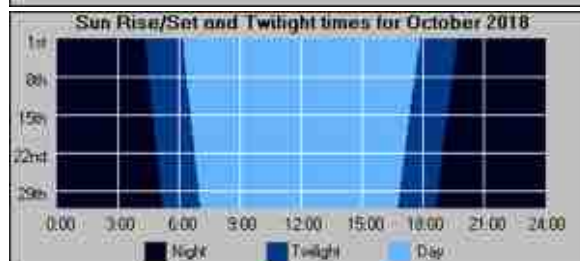
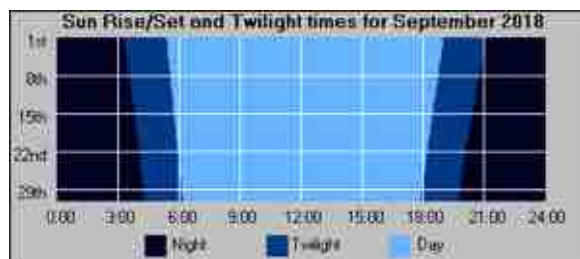
1st	05:24	19:00	03:19	21:06
8th	05:35	18:45	03:35	20:45
15th	05:46	18:29	03:50	20:25
22nd	05:58	18:13	04:04	20:07
29th	06:09	17:56	04:17	19:49

October

1st	06:12	17:52	04:20	19:44
8th	06:24	17:36	04:33	19:27
15th	06:35	17:21	04:44	19:12
22nd	06:47	17:06	04:56	18:58
29th	07:00	16:52	05:07	18:45

November

1st	07:05	16:47	05:12	18:40
8th	07:17	16:34	05:22	18:29
15th	07:29	16:24	05:33	18:21
22nd	07:41	16:15	05:42	18:14
29th	07:52	16:09	05:51	18:09



Meteor Showers

Date	Meteor Shower	ZHR	RA	DEC	Illum. Frac.	Longitude
9/ 9/2018	Piscids	10	0h36m	7°	0.01	166°
9/21/2018	Piscids	5	0h24m	0°	0.85	178°
10/14/2018	Piscids	??	1h44m	14°	0.25	200°
10/23/2018	Orionids	25	6h24m	15°	0.97	209°
11/ 4/2018	Taurids	8	3h44m	14°	0.16	221°
11/18/2018	Leonids	10	10h08m	22°	0.72	235°

CAS Observers' Session September to Oct 2018

All CAS members are welcome. Come and see the wonders of the Universe through our telescopes and talk to knowledgeable astronomers. It's a whole new experience just waiting for you to enjoy! The dates of the planned sessions are published on the website of CAS. This event is weather dependent. Check by visiting CAS website. Generally, if it's completely cloudy then the session will not take place.

7th or 8th September	Friday or Saturday	20:30 - 00:00	Dyffryn Gardens
14th or 15th September	Friday or Saturday	20:30 - 00:00	Dyffryn Gardens
5th or 6th October	Friday or Saturday	20:00 - 00:00	Dyffryn Gardens
12th or 13th October	Friday or Saturday	20:00 - 00:00	Dyffryn Gardens
2nd or 3rd November	Friday or Saturday	20:00 - 00:00	Dyffryn Gardens
9th or 10th November	Friday or Saturday	20:00 - 00:00	Dyffryn Gardens

Almanac September

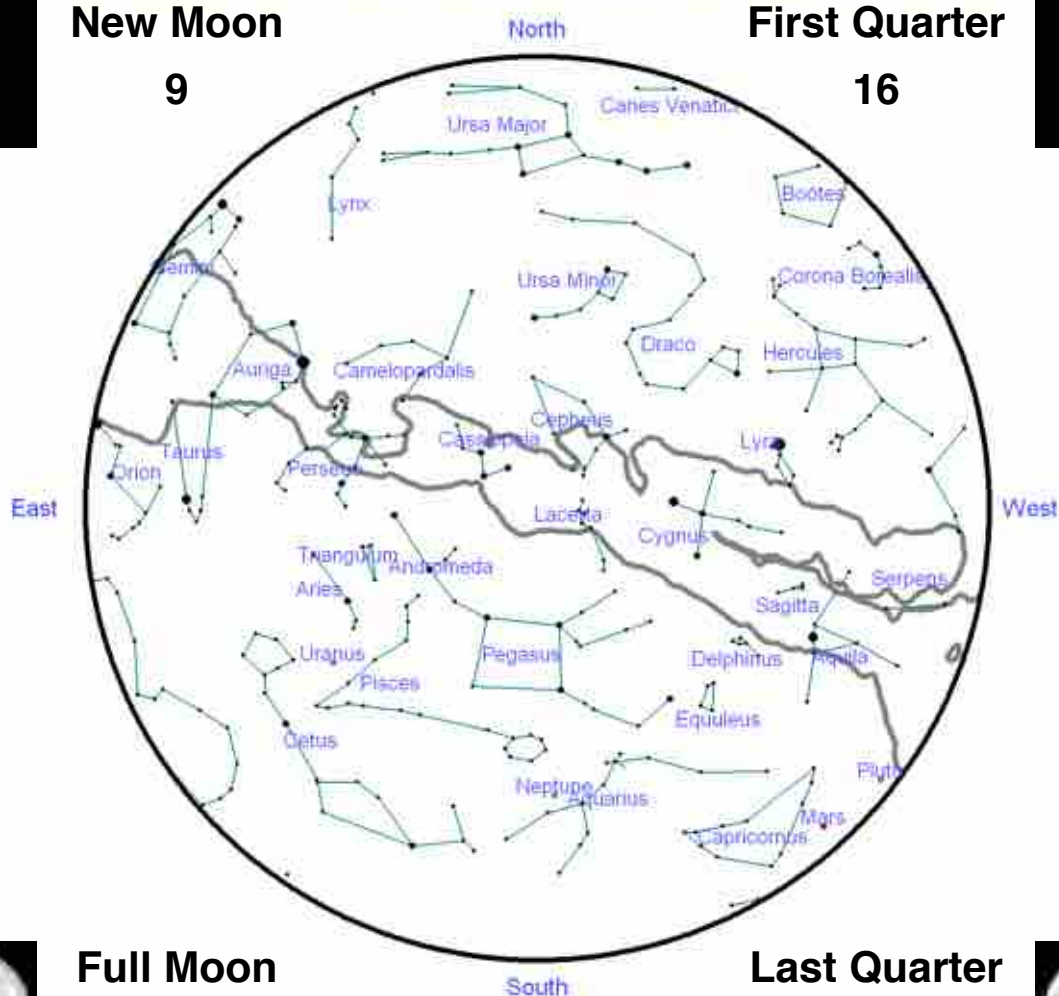


New Moon

9

First Quarter

16



Full Moon

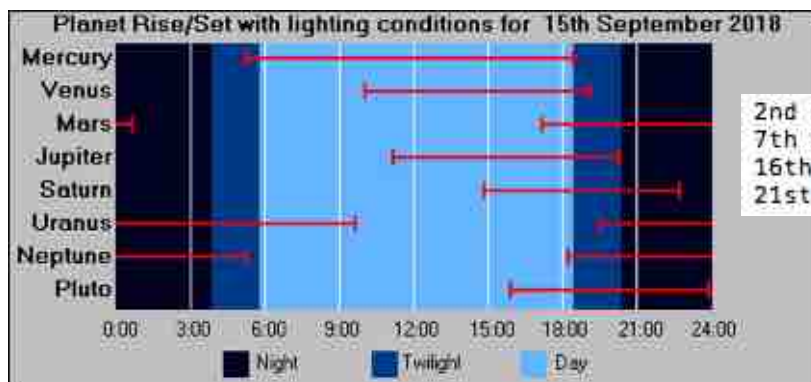
25

Last Quarter

3



	Constellation	R.A.	Dec	Rises	Sets	Mag.
Mercury	Leo	11h13m48s	+06°54'10"	05:10	18:25	-1.5
Venus	Virgo	13h58m56s	-17°26'26"	10:02	19:03	-4.5
Mars	Capricornus	20h16m51s	-24°41'09"	17:06	00:36	-1.7
Jupiter	Libra	15h08m13s	-16°46'06"	11:07	20:16	-1.9
Saturn	Sagittarius	18h11m15s	-22°43'38"	14:47	22:41	+0.4
Uranus	Aries	02h00m03s	+11°38'19"	19:29	09:38	+5.7
Neptune	Aquarius	23h11m09s	-06°17'07"	18:12	05:18	+8.0
Pluto	Sagittarius	19h36m14s	-21°47'26"	16:06	00:16	+14.3

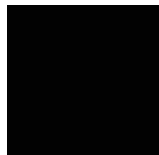


Planet Events

2nd Mercury at Perihelion (0.31 A.U.).
7th Neptune at Opposition
16th Mars at Perihelion (1.3 A.U.).
21st Mercury at Superior Conjunction

The data presented here is for the 15th, positional data is at 00:00 GMT/UT

Almanac October

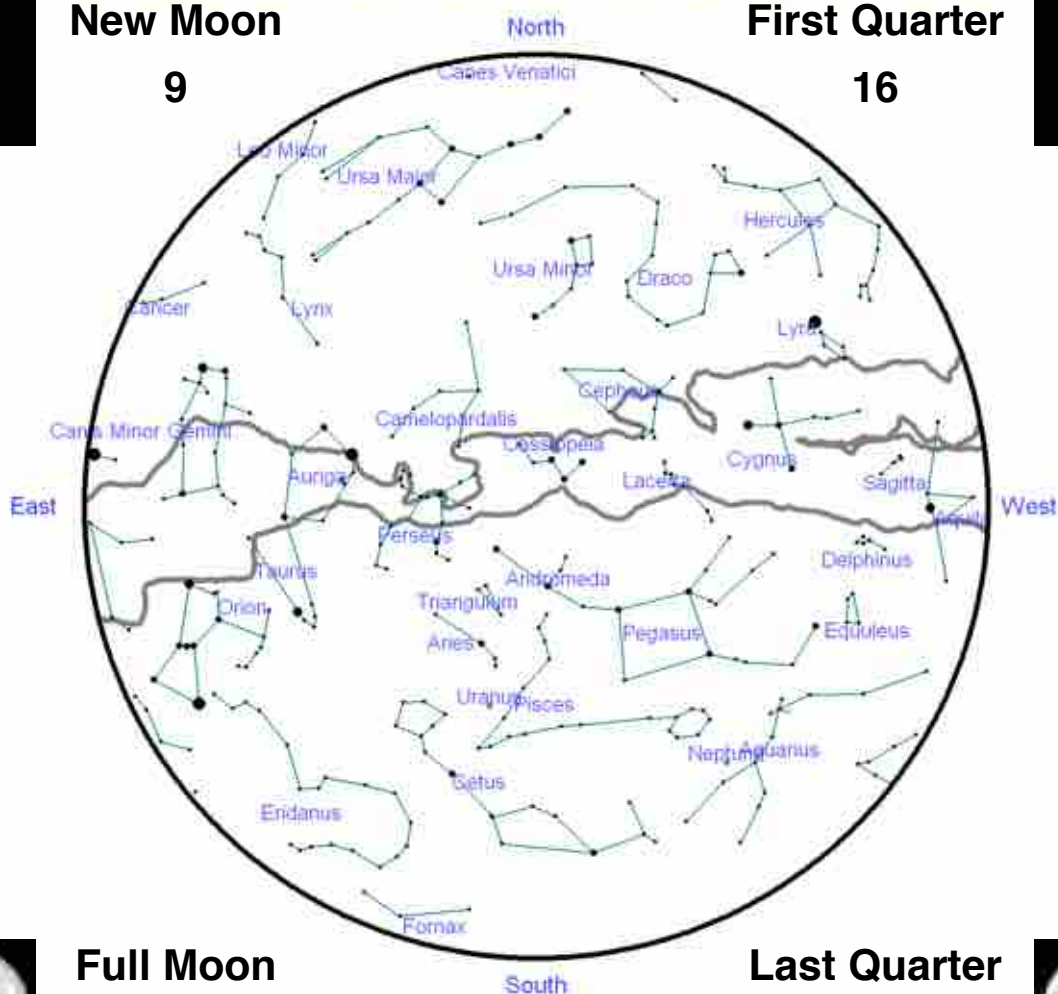


New Moon

9

First Quarter

16



Full Moon

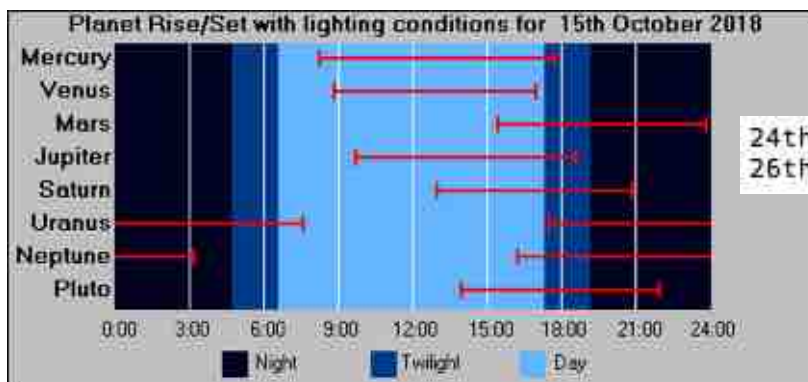
24

Last Quarter

2-31



	Constellation	R.A.	Dec	Rises	Sets	Mag.
Mercury	Virgo	14h19m30s	-15°01'36"	08:11	17:39	-0.3
Venus	Virgo	14h16m56s	-21°34'20"	08:48	16:57	-4.3
Mars	Capricornus	21h02m07s	-20°08'41"	15:23	23:50	-1.0
Jupiter	Libra	15h30m34s	-18°15'41"	09:40	18:31	-1.8
Saturn	Sagittarius	18h16m09s	-22°46'11"	12:55	20:47	+0.5
Uranus	Aries	01h55m59s	+11°16'04"	17:29	07:34	+5.7
Neptune	Aquarius	23h11m17s	-06°16'14"	16:14	03:20	+8.0
Pluto	Sagittarius	19h36m20s	-21°47'19"	14:08	22:14	+14.3



Planet Events

24th Uranus at Opposition
26th Venus at Inferior Conjunction

The data presented here is for the 15th, positional data is at 00:00 GMT/UT

Almanac November

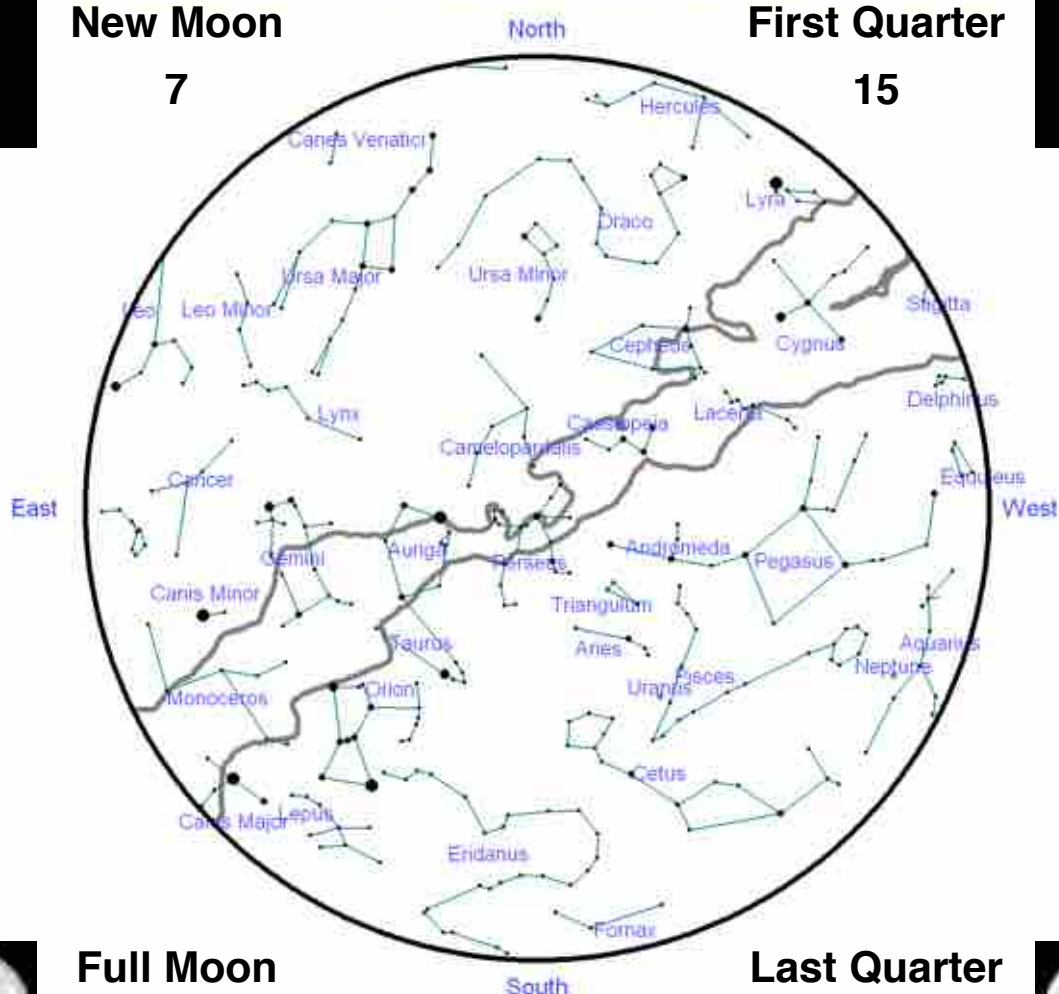


New Moon

7

First Quarter

15



Full Moon

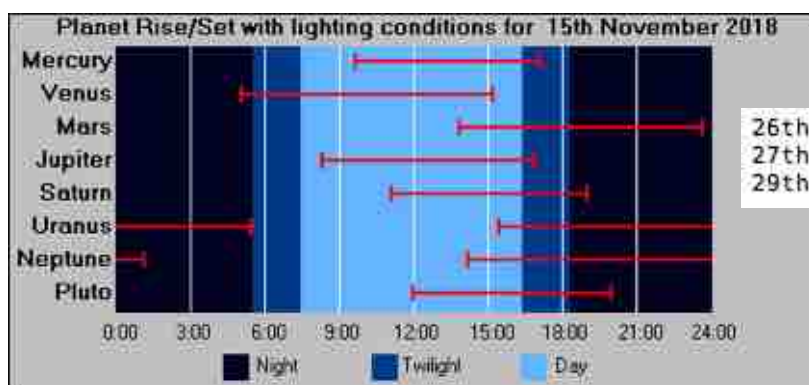
23

Last Quarter

30



	Constellation	R.A.	Dec	Rises	Sets	Mag.
Mercury	Ophiuchus	16h45m46s	-24°42'49"	09:36	17:02	+0.2
Venus	Virgo	13h31m14s	-11°20'50"	05:00	15:09	-4.5
Mars	Aquarius	22h08m38s	-13°16'51"	13:47	23:35	-0.3
Jupiter	Libra	15h57m51s	-19°47'13"	08:15	16:47	-1.7
Saturn	Sagittarius	18h26m48s	-22°44'23"	11:03	18:56	+0.6
Uranus	Aries	01h51m15s	+10°50'25"	15:25	05:25	+5.7
Neptune	Aquarius	23h11m25s	-06°15'22"	14:12	01:19	+8.0
Pluto	Sagittarius	19h36m25s	-21°47'13"	12:06	20:12	+14.3



Planet Events

26th Jupiter at Conjunction
27th Mercury at Inferior Conjunction
29th Mercury at Perihelion (0.31 A.U.).

The data presented here is for the 15th, positional data is at 00:00 GMT/UT

The words below are hidden in the word square. Your task is to find these words in the square as quickly as possible. They may be read in any direction, right, left, up, down or in any diagonal direction. Put a tick against each word as you find it.

```

c l s e l l i p t i c a l n r s r a e y
b a u t n a i g r e p u s n e b a m r x
b r n o i t a g e r g g a f t c c m a a
e i a w r d m a g e l l a n i c c p l l
e p r w a a t r i l l i o n p l u l u a
t s u r t n l n l s h m r e u a m a g g
l n k e s e d l u a l w a b j n u n e g
e a o c x v x f e s m m l u h g l e r l
w r n i o o a t l t n i o l f u a t r o
e a o o t b p d r o s e s a i a t o i b
e e l u i c s l e a w r g e c g i i m u
d r g u n t e e a m g e e o t e o d a l
r e c a r i a l r n o a r t r e n b s a
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t s t e s b e e i o a t d a l i y a e t
s h c t l y m o r v c b w n c a k h l r
u i a t l o s e l s a r l a a t n c h p
l f l a a p h t s a e r r e y s i e t k
c t a m k x d s e s t y g w g r v c t j
x j g m e d i u m m a a t n e u t r o n

```

accumulation

aggregation

andromeda

assemblage

beetleweed

center

cluster

collection

dark

elliptical

exoplanet

extragalactic

galactic

galaxy

globular

gravitation

hole

hydrogen

interstellar

irregular

jupiter

language

magellanic

mass

matter

medium

nebula

neutron

observable

planet

planetesimal

planetoid

redshift

solar

spiral

star

sun

supergiant

system

trillion

universe

uranus

urceolata

wandflower

way

years

Solar Viewing With CAS

On selected Saturdays (usually from 10.30 a.m. until about 12:30 p.m.) several Society members visit the observatory to carry out maintenance tasks etc. If the weather is suitable, they may make available to visitors to the observatory - whether Society members or not - telescopes suitable for viewing the Sun IN A SAFE MANNER.

N.B. NEVER LOOK DIRECTLY AT THE SUN WITHOUT HAVING SUITABLE EYE PROTECTION - PERMANENT AND IRREVERSIBLE EYE DAMAGE MAY RESULT

Also, the Sun should never be observed with any optical apparatus that has not been fitted with a purposely manufactured solar filter.

The Society has several telescopes fitted with genuine solar filters.

Activity on the Sun

Eruptive events on our nearest star can be wildly different. Some come with a solar flare, some with an additional ejection of solar material called a coronal mass ejection (CME), some with complex moving structures in association with changes in magnetic field lines that loop up into the Sun's atmosphere, the corona.



Photo: Sun. Sony NEX CAS Observatory

Astrophotography with CAS

In view of a large number of inquiries received from Society members about organised astrophotography sessions, the Society has created an Astrophotography Group for interested members. It meets at the Society's own observatory on a Tuesday evening. Any member who is interested in joining the group should visit (CAS Observatory Group) on FaceBook. Why not bring your DSLR or SLR TTL camera to use the observatory telescope to take your very own astrophotography. We currently have T-adapters for Cannon, Nikon, Fuji and Sony NEX DSLR's. If your camera is not one of those DSLR's then contact the Observatory Manager by email or in person to discuss the needed T-adapter. Images collected will need editing on your home PC. Photos may be published on CAS website by emailing them to the webmaster.

observatory.manager@cardiff-astronomical-society.co.uk

webmaster@cardiff-astronomical-society.co.uk

Your Contact Details

Have you changed your email address or other contact details recently? If so, you could be missing out on receiving important society information. Please keep us up to date with any changes. Send your revised details to our Membership Secretary

membership.secretary@cardiff-astronomical-society.co.uk

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Observatory Telescope Workshop

On selected Saturdays (usually from 10.30 a.m. until about 12:30 p.m.) CAS members only

email your equipment details: observatory.manager@cardiff-astronomical-society.co.uk **16**
