# **Federation of Astronomical Societies**



#### www.fedastro.org.uk

#### No 122: June 2021

Note: The FAS Council Reserves the Right to publish articles, events and reports submitted to the Newsletter by FAS Member Societies

## President's Spot: Dr Paul A. Daniels FRAS



Apologies that the President's Spot this time is so short. I blame Astronomy – it's too darned interesting! I got side-tracked doing the research for it, didn't leave much time to write it and now, with Your Esteemed Newsletter Editor (YENE) casting thinly-veiled threats about removal of some of my favourite body parts if I'm late for the copy deadline, it'll have to be just a few paragraphs.

We have a partial solar eclipse coming up in the UK on 10<sup>th</sup> June. It's an annular solar eclipse over some parts of Greenland and Canada and I'll bet that few will be keen to make that sort of journey for anything less than a total solar eclipse. Those on the isles of Lewis and Harris, Northwest Scotland, will see about a magnitude 0.5 partial eclipse (half of the Sun's diameter covered by the Moon) whilst those in Dover, England, will only get about a magnitude 0.3 partial eclipse.

This is where my research distraction came from – poring over the wonderful diagrams on <u>timeanddate.com</u>. See image to the right. For example, I hadn't realised, that the total eclipses of  $2^{nd}$  August 2027 and  $12^{th}$  September 2053 follow almost identical paths. Imagine that – two total eclipses, 26 years apart and the configuration of the Sun, Earth and Moon being so similar that the tracks are almost identical over North Africa and the Middle East! The main difference is that the Moon is a British Standard Smidgeon<sup>TM</sup> further away in 2053 so the track of totality is slightly narrower, with a consequently shorter duration of totality, and the track also stays a little further North as it passes over the Indian Ocean.

Okay, enough! I can see YENE approaching with an evil glint in his eye and a scalpel in his hand!

The FAS Online Convention on 17<sup>th</sup> April 2021 went very well

Treasurer

2-Aug-2027 12-Sep-2053

with over 300 online attendees including from Germany, India, Italy, Jersey, Spain and the USA. Jerry Stone, our meetings and publicity officer, had organised four *great* talks from Prof Lord Martin Rees (the Astronomer Royal), Greg Smye-Rumsby, Nik Szymanek and George Tahu (Deputy Director/Lead Program Executive for NASA's Mars Exploration Program). I urge you all to go and view the recording of the convention <u>here</u> and leave comments. We currently have 98 subscribers and, once we reach 100, we'll be able to apply for a custom FAS URL on YouTube so please subscribe.

#### Continued...

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Newsletter No 121, March 2021, Published by the Federation of Astronomical Societies ISSN 1361 - 4126

On 13<sup>th</sup> May 2021 I chaired the inaugural meeting of the RAS, FAS, BAA and SPA discussing amateur contributions to the observation of megaconstellation satellites. A small group of observers will trial some observing techniques that will lead to useful scientific results with the aim of reporting back in mid-July and the hope that we can start the full observing project in mid/ late Autumn (contact either John Evans, FAS Council, or Alan Lorrain, BAA President, if you'd like to help with the trial) – we'll let you know when we're all set up and ready for those interested to register.

On a personal note, I was unfortunately unsuccessful in my election bid to stay on the RAS Council. If you need something

raised there, then Martin Lunn is the one remaining amateur astronomer on their Council. I'm still involved with the RAS' Education and Outreach Committee and the Megaconstellation Working Group (amongst others) so that's still [almost] enough to keep me out of mischief!

That's it, I'm done and YENE almost looks disappointed!

Stay safe and clear skies.

Paul Daniels

15-May-2021.

## China's Zhu Rong Mars rover off and roaming on red planet



China's first Mars rover has driven down from its landing platform and is roaming the surface of the red planet, China's space administration said on Saturday.

The solar-powered rover touched Martian soil at 10.40am on Saturday, the China National Space Administration said.

China landed the spacecraft carrying the Zhu Rong rover on Mars last Saturday, a feat more difficult than a moon landing, in a first for the country.

Named after the Chinese god of fire, the rover ran diagnostics tests for several days before it began its exploration on Saturday. It is expected to be deployed for 90 days to search of evidence of life.

Full details at South China Morning Post www.scmp.com

## British spaceflight to become reality as government provides launchpad for spaceports

Another barrier to space exploration from UK soil is lifted today (24 May 2021), with spaceports expected to be in operation from next summer.

Developed with the <u>UK Space Agency</u> and the <u>Civil</u> <u>Aviation Authority</u>, new regulations being laid in Parliament today will mean satellites and rockets can launch from UK soil for the first time – with spaceports planned for Cornwall, Wales and Scotland.

Future satellite launches will improve our access to data and communications, and revolutionise services such as satellite navigation and earth observation - enhancing the way we live, work, travel and interact with our planet.

Space exploration has a long history of inspiring us all to consider our impact on the Earth, and access to space is essential as we tackle global environmental issues such as climate change.

The legislation, laid just 2 weeks before the <u>G7 summit in</u> <u>Cornwall</u>, will come into force this summer and will help propel the development of commercial spaceflight technologies, from traditional rockets to high-altitude balloons and spaceplanes.

In time, we will also start to see new and emerging space activity - including sub-orbital space tourism and eventually new transport systems such as hypersonic flight, which will dramatically reduce aviation travel times.

UK spaceport launches will help create new jobs and offer economic benefits to communities across the country, as well as inspiring the next generation of space scientists.

Not only will this support our thriving space sector, it will also attract companies from around the globe to come to, and benefit from, these commercial opportunities.

Full details at UK Space Agency https://www.gov.uk/government/organisations/uk-spaceagency



# Wells and Mendip Astronomers Zoom **Meeting Invitation**



On Saturday 19th June 2021 at 7:30pm, an online Zoom talk by Dr. Wolfgang Steinicke has been organised by Wells and Mendip Astronomers supported by Bath Astronomers. The talk is entitled "William Herschel - Discoverer of the Deep Sky - The epochal work of the greatest visual observer and his talented sister Caroline".

The lecture by Dr. Steinicke describes the epochal work of William and Caroline Herschel. It focuses on deep-sky objects, visually observed between 1774 and 1817 with various telescopes. Most of these were discovered in the monumental campaign (1783-1802), aided by his talented sister. 2500 nebulae and star clusters were published in three catalogs. William's exploration of the skies from southern England also covered binary stars and objects in the solar system - with the height of the Uranus discovery in 1781. However, the man of German descent was far more than just an observer. He constructed large telescopes, developed new methods, and pondered the nature and evolution of cosmic objects, resulting in a revolutionary view of the structure of the Milky Way.

If you'd like to attend the free online event, you can reserve your place on the numbers limited Zoom session using Wells and Mendip's Billetto ticketing page: Either click on the link above or type the following in the address bar:

#### shorturl.at/kxGJT

Bath Astronomers website https://bathastronomers.org.uk/about-us/

Wells and Mendip Astronomers website http://www.wellsastronomers.org.uk/

## National Astronomy Meeting 2021

### The Royal Astronomical Society's National Astronomy Meeting will now be held online due to ongoing uncertainties of the Covid-19 pandemic.

#### 19th - 23rd July 2021

The Royal Astronomical Society is proud to present the National Astronomy Meeting, NAM2021, to be hosted by the University of Bath from Monday 19th July to Friday 23rd July, 2021. This meeting was originally planned for July 2020, but had to be postponed due to the Covid-19 pandemic. In response to the ongoing uncertainties of the COVID-19 pandemic, the Royal Astronomical Society (RAS) and the University of Bath have decided to hold NAM 2021 as a virtual conference.

We are all in an unprecedented and rapidly evolving situation, with governments around the world revising their official guidelines on travel and social contact on a daily basis. We therefore feel that the most responsible and secure way to move forward is to host the conference as an online event.

To register please use the link below. The deadline for registration is Monday 5th July 2021.

Registration and details of fees can be fond at https://nam2021.org/nam2021/registration





Astronomical Society









## International Astronomical Youth Camps, - IAYC

#### Andrew Glendinning



Hampstead Garden Suburb Astronomical Society

I would like to highlight the work of the IAYC, - **The International Astronomical Youth Camps**.

In 2019, I was looking for speakers for our Society, The Hampstead Garden Suburb Astronomical Society, <u>www.hgsas.co.uk</u>, and remembered that some 50 years ago in 1969 I had been on an Astronomical Youth Camp in West Germany (as it was in those days!) So, I googled "Astronomical Youth camps" and discovered the IAYC. I was delighted to discover that the Camps were still going and that I had been on the first of many.

I wrote an account of the camp I attended and this appeared in the Journal of the British Astronomical Association. This article can be found here:

#### http://adsabs.harvard.edu/full/1969JBAA...80...53G

I made contact with Hannah Dalgleish and Dan Mortimer who were very helpful and informative about the work of the IAYC (<u>www.iayc.org</u>) and in April 2021, Dan gave a talk to our Society about the work of the IAYC. This is available on our website under "videos of past meetings 2021" or directly here:

https://www.youtube.com/watch?v=JdQ1HMm-AUE&ab channel=HGSAstronomicalSociety The Camps are open to young people between the ages of 16 and 24 and take place in the summer months in a European destination. Successful applicants are selected on the basis of enthusiasm and interest rather than educational qualifications and background.

Sadly, the camps were not able to take place in 2020 or 2021 because of the pandemic, however this year the IAYC is hosting some activities online: <a href="http://www.iayc.org/eiayc">www.iayc.org/eiayc</a>

The IAYC is funded entirely by donations and the HGS Astronomical Society members were so impressed with the excellent work carried on by the IAYC that we made a donation of  $\pm 250$ .

Our Society has attracted a larger membership during the lockdown because of the move to Zoom meetings and this change has also resulted in much lower running costs. This boosted the Society's funds allowing us to make the donation. We were delighted to be able to give something back to the Astronomical community, who have so generously supported us over the last 20 years, (HGSAS started in 2001).

We hope other Astronomical Societies will take a look at the work of the IAYC and join us in supporting this excellent organisation.





Images courtesy IAYC website and used with permission

The amount of knowledge to be gained from the IAYC is limitless. You can learn to use telescopes, create incredible astrophotographs, and most of all work on a project of your own, guided by a leader who will help you to make some amazing discoveries. No previous astrophysical knowledge is required; all that is needed is a passion for astronomy and the night skies!

More information can be found at the International Astronomical Youth Camp website at:

### <u>www.iayc.org</u>

### Appointment of the Astronomer Royal for Scotland

#### **Dr Paul Daniels**

Following the death of Prof John Brown in November 2019, the FAS is pleased to congratulate Prof Catherine Heymans on her appointment as the new Astronomer Royal for Scotland.

The post of Astronomer Royal for Scotland was created in 1834 and was then occupied by the person who was also simultaneously the Director of the Royal Observatory Edinburgh and the Regius Professor of Astronomy at Edinburgh University. In 1995 this was split into three separate positions and the role of Astronomer Royal for Scotland became an honorary appointment.

#### In May this year Prof Heymans became the 11<sup>th</sup> Astronomer Royal for Scotland and the first woman to hold the post. She is the European Research Council Fellow at the University of Edinburgh and the Director of the German Centre for Cosmological Lensing at the Ruhr-University in Bochum, Germany. Her principal research interest is the use of the technique of cosmic weak gravitational lensing.

Image courtesy: The University of Edinburgh





### **Peta Bosley Remembered**

#### **Dr Paul Daniels**

It is with sadness that I write to let you know about the passing of Peta Bosley who was a dedicated friend of amateur astronomy in the UK.

Peta developed an avid interest in Space and Astronomy at an early age and went on to study for a degree in Astrophysics at Queen Mary College, University of London.

After retiring from 30 years in IT, first working for Ferranti and then as a project manager at IBM, Peta rekindled her old passion for astronomy and joined the Hampshire Astronomical Group where she arranged their monthly public lectures and helped with visits and outreach at their Clanfield Observatory site and elsewhere.

Peta specialised in meteorites and astrobiology, and was also active in HAG's involvement with the UKMON and NEMETODE projects (monitoring meteors by video) and contributing the collected data to the overall European project.

She was also a member of the Mars-themed National Astronomy Week 2020 team, a former BAA Council Member and, most recently, on the BAA Board of Trustees.

#### Image courtesy Steve Bosley

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### **GoSpaceWatch presents an Online International Conference**

### Human Analogue Mars Missions

Saturday 9th October 2021

Speakers: Karin Brünnemann (Slovakia): Austrian Space Forum AMADEE 2020; Igor Bobek (Croatia): The Mars Society; Prof. Julio Rezende (Brazil): Habitat Marte; Eleni Charitonos (Cyprus): Habitat LunAres Research Station

#### Organised by GoSpaceWatch www.gospacewatch.co.uk

## **4wardFutures Virtual Space Futures Career Expo**

### 4wardFutures are hosting a Virtual Space Futures Careers Expo during the week beginning 19<sup>th</sup> July 2021



#### https://www.4wardfutures.org.uk/space-careers-expo

#### 4wardFutures are inviting employers, universities, organisations, to exhibit at the Expo and take part in online events and webinars.

4wardFutures is a Warrington, England based charity that is working to empower young people of all backgrounds to take control of their future careers and progression opportunities in a world that is rapidly changing through the impact of innovation and new technology.

During the lead up to the Expo launch and the week of the 19<sup>th</sup> July 2021, 4wardFutures will be running a series of online events and webinars with people from across the space and related sectors.

#### The Virtual Space Futures Careers Expo venue will have the following main areas:

Arrival Area: In the arrival area there will be a range of 3D models of rockets, launch systems and larger space related technology displayed.

**Entrance:** The entrance area will host a Space Museum. The museum will show a range of space technology and vehicles from space missions. There will also be a portal to a virtual auditorium where visitors will be able to watch both live and recorded webinar.

**Mezzanine:** The mezzanine area will have a virtual Mars landscape and host exhibitions of the different 4wardFutures space related projects.

Hall 1 – 3: The main exhibition area.

#### Visitors will be able to explore the Expo from any internet enabled device through a Google maps type navigation system

Following the launch of the Space Expo, 4wardFutures will also use the Expo arena to deliver a range of events in collaboration with organisations (Universities, Trade Organisation, Government Space Agencies) or companies from the space and related sectors.

The aims of the Virtual Space Futures Expo and the series of webinars are to give:

- Young people aged 9 to 25 the opportunity to explore:
  - The full range of career opportunities that are available across the space and related sectors.

• The full range of progression opportunities into the space and related sectors that are available through universities and apprenticeships.

• How in addition to STEM curricula areas such as maths, physics and technology, other subject areas such geography, biology, philosophy, art and design, sports science, and business studies can all lead to fulfilling careers within the space and related sectors.

 $\circ$   $\,$  The applications of space technology here on earth

• The work that is being carried out in both the UK and across the world by companies, universities, governments, and individuals to explore the solar system and beyond.

- **Employers** the opportunity to:
  - Engage with and inspire young people who have an interest in the space and related sectors.

 $_{\odot}\,$  Show young people that the space sector needs young people with a wide range of skills and qualities not just STEM related.

 $_{\rm O}$  Share with young people, parents/carers, teachers, and the wider community the career and progression opportunities they offer.

• **Organisations and individuals** who are working in or with the space sector the opportunity to share their work or research with young people and the wider community.

• Universities and training providers the opportunity to inform young people about the programmes they offer that can lead to careers in the space sector.

Please visit <u>https://www.4wardfutures.org.uk/space-careers-expo</u> to find out more about the Space Futures Expo and register your interest in exhibiting.



# FAS on YouTube

The FAS has hosted two online conferences so far this year, and these are now available on YouTube. They are "The COVID Outreach Webinar held on Saturday 9th January 2021, and the FAS Convention held on Saturday 17th April 2021. These events are now available as video recordings on our YouTube channel. Our channel is located at <a href="https://www.youtube.com/channel/UCnmaTudqwjs9k7Gr-WhUzw">https://www.youtube.com/channel/UCnmaTudqwjs9k7Gr-WhUzw</a> but it is easier just to search for "Federation of Astronomical Societies YouTube". However, if we achieve more than 100 Subscribers, we can have a custom URL for our channel. So please subscribe.



## **Observatory Dome for Sale in Kidderminster**

Your Editor has been notified that there is an observatory dome (Sirius model) for sale in Kidderminster, Worcestershire. The owner sadly passed away a few years ago and his wife wants to dispose of the observatory building. No prices given. To be discussed with the owner.

If anyone is interested please contact the Editor at <u>editor@fedastro.org.uk</u> to be put in touch with the owner.



CranSEDS

(The Cranfield University Students for the Education and Development of Space)

### presents

## The Space of Tomorrow – From Vostok to Artemis,

an online one-day conference on the past, present and future of space exploration.

### Friday 11th June 2021

Our aim is to bring students, companies and agencies together through their passion for space. To this end, we offer quality discussions about space exploration and networking opportunities.

More details and registration can be found at:

https://www.cranfield.ac.uk/events/events-2021/cranseds-space-journey

## Partial Eclipse of the Sun: 10th June Do not look at the Sun without suitable eye protection

A Partial Solar Eclipse will occur on 10th June. This event is actually an Annular Eclipse but only a partial eclipse will be visible from the UK. The time of greatest eclipse is at **10:41:56 UT** as viewed from Birmingham. Full details of this eclipse can be found from various websites. As an example take a look at <u>www.timeanddate.com</u> and select Sun & Moon from the menu bar, then select Eclipses from the drop down menu. Enter your geographical location in the box on the top right of the page. Eclipse details will then be presented for your location.

Please ensure you use proper eye protection when viewing the eclipse.

The graphic on the right shows the event at maximum eclipse, again from Birmingham and is a screen shot taken from Stellarium Web. <u>stellarium-web.org/</u>

