JANUS
THE NEWSLETTER OF EWELL ASTRONOMICAL SOCIETY

August 2022 EDITION
Editor: ewellastro.editor@gmail.com
Email: ewellastro@gmail.com
Website: https://www.ewellastronomy.org

Editorial

Welcome to the August edition of Janus. As is customary, there will be no meeting in August. Our next meeting will be on 9th September when the speaker will be Professor Brad Gibson from the University of Hull Centre of Astrophysics who has yet to advise the topic of his talk. The previous week, Saturday 3rd September will be our annual picnic at Headley Heath.

As previously advised – and noted by Gary Walker in his usual monthly item - 12th July saw NASA release the first images and spectra from JWST. Two days later, NASA announced that more than 40TB of data from the telescope's commissioning period was being released on the Space Telescope Science Institute's Mikulski Archive for Space Telescopes (MAST). This data includes images of Jupiter, plus images and spectra of several asteroids, captured to test the telescope's instruments before science operations officially began on 12th July. The data demonstrates Webb's ability to track solar system targets and produce images and spectra with unprecedented detail.

So, what's next for NASA? Taking JWST from an initial idea to realisation took 25 years and, with JWST expected to operate for as long as 20 years before running out of propellant, you might think that the next telescope launch would be some way off – but you'd be wrong! In 2027 – only 5 years away - NASA plan to launch the Nancy Grace Roman Space Telescope with a 2.4m diameter mirror - the same as Hubble – but with a field of view 100 times that of Hubble (*https://roman.gsfc.nasa.gov/*) which will scan vast areas of the sky for new targets for JWST, while also hunting for the effects of dark matter and dark energy.

John

The Solar System August

MERCURY: recently passed behind the Sun at superior solar conjunction and, throughout the month, is not observable. At the beginning of the month, it reaches its highest point in the sky during daytime and is no higher than 0° above the horizon at dusk. As the month progresses, its position in the sky becomes less favourable and by the end it will still reach its highest point in the sky during daytime and be 2° below the horizon at dusk.

VENUS: remains just about visible as a morning object, now well past greatest elongation W and returning closer to the Sun. It begins the month rising at 03:23 BST, – 1 hour and 58 minutes before the Sun – and will reach an altitude of 11° above the E horizon before fading from view as dawn breaks around 04:57. By the end of the month, it is visible in the dawn sky, rising at 04:45 BST – 1 hour and 23 minutes before the Sun – and will reach an altitude of 8° above the E horizon before fading from view as dawn breaks around 05:47.

MARS: is visible throughout the month as a morning object in the dawn sky. It begins the month rising at 23:59 BST and will reach an altitude of 41° above the SE horizon before fading from view as dawn breaks around 04:37. At the end of the month, it will rise at 22:47 BST and reach an altitude of 56° above the SE horizon before fading from view as dawn breaks around 05:35.

JUPITER: is also clearly visible in the dawn sky throughout the month. At the beginning of the month, it will rise at 23:36 BST, when it reaches an altitude of 7° above the E horizon. It will then reach its highest point in the sky at 04:54, 40° above the S horizon. It will be lost to dawn twilight around 04:57, 40° above the S horizon. At the end of the month, it is visible for longer, rising at 21:36 BST, when it reaches an altitude of 7° above the E horizon. It will then reach its highest point in the sky at 02:50, 39° above the S horizon. It will be lost

to dawn twilight around 05:47, 27° above the SW horizon.

SATURN: is currently approaching opposition and is visible throughout the month as a morning object. It begins the month accessible around 22:44 BST, when it reaches an altitude of 10° above the SE horizon. It will then reach its highest point in the sky at 02:03, 23° above the S horizon before being lost to dawn twilight around 04:36, 15° above the SW horizon. By the end of the month, it becomes accessible around 20:39 BST, when it rises to an altitude of 10° above the SE horizon. Reaching its highest point in the sky at 23:53, 22° above the S horizon, it will become inaccessible around 03:07 when it sinks below 10° above the SW horizon.

URANUS: is currently emerging from behind the Sun and, throughout the month, is visible in the dawn sky It begins the month rising at 23:51 BST and reaching an altitude of 33° above the E horizon before fading from view as dawn breaks around 03:36. By the end of the month, rising at 21:54 BST and reaching an altitude of 54° above the S horizon, it will fade from view as dawn breaks around 04:43.

NEPTUNE: is visible throughout the month as a morning object. It begins the month rising at 22:17 BST and will reach an altitude of 35° above the S horizon before fading from view as dawn breaks around 03:36. By the end of the month, approaching opposition, it becomes accessible around 22:54 BST, when it reaches an altitude of 21° above the SE horizon. It will then reach its highest point in the sky at 02:04, 35° above the S horizon, before being lost to dawn twilight around 04:43, 25° above the SW horizon.

MOON PHASES:

New Moon	28 Jul
First Quarter	5 Aug
Full Moon	12 Aug
Last Quarter	19 Aug
New Moon	27 Aug

Notable Events:
Observation of some of these events may require a telescope, although some will be visible with the naked eye. More information with times at *https://in-the-sky.org*

August

1 Conjunction of Mars and Uranus
4 C/2017 K2 (PANSTARRS) reaches its brightest
10 Mercury at highest altitude in evening sky
12 Close approach of the Moon and Saturn
13 Perseid meteor shower 2022
14 Saturn at opposition
M15 is well placed
15 Close approach of the Moon and Jupiter
M2 is well placed
18 κ-Cygnid meteor shower 2022
Close approach of the Moon and Uranus
Lunar occultation of Uranus
19 Close approach of the Moon and Mars
22 Asteroid 4 Vesta at opposition
24 Uranus enters retrograde motion
25 73P/Schwassmann-Wachmann at perihelion
27 Mercury at greatest elongation east
29 Mercury at dichotomy

Collected Observations (and thoughts) – Gary Walker

Comet C/2017 K2 Panstarrs – 5 Jul

As stated in the July edition of Janus, I have been observing the latest comet recently. It only appeared as a largish, dim "fuzzball" with my scope, but this comet is significant for several reasons.

It has a huge nucleus of at least 11 miles in size, and it has come on a long journey of 3 million years from the Oort Cloud. It currently also makes the record for the furthest distance that a comet has been discovered out in the solar system, between the orbits of Uranus and Neptune!

It was discovered way back in May 2017, some 5 years ago, and has only now come to opposition which it reached on 14th July. Even then, it was still distant from the Earth by about 168 million miles!

Noctilucent Clouds – 6 Jul

On the early morning of 6th July, after about 3am, I saw Noctilucent Clouds for the first time this "season". There was quite an

expansive display from the NW to the NE sky. Unlike many others, this one did not have any billows or ripples in it, but it looked far more like a cirrus cloud display, with streaks and bands, and at least one triangular shape that later morphed into a "tower".

Needless to say, the star Capella was just above the cloud display!

When is Jupiter not Jupiter? – 6 Jul

I have noticed that Saturn, along with Jupiter, is now starting to creep into the late evenings, sometime after midnight. Since it only gets properly dark after 11pm, and starts to get light after 3am, the nights only last just over 4 hours at this time of the year.

On one such night, in early July, I had seen Saturn rising in the SE sky, and I saw a much brighter, yellow "planet" some degrees lower down, which I assumed, was Jupiter. I looked at "Jupiter" through my telescope and was surprised to only see aircraft lights in the field of view! I looked again with the naked eye, and could still see what appeared to be Jupiter, but then the penny dropped, when I saw that the distance between Saturn and "Jupiter" was slowly decreasing. What I had seen was only an aircraft, presumably taking off from Gatwick Airport, as it was in that direction, but because it was coming towards me, it had appeared to be stationary for a time, and its head beam was facing me! So, aircraft can often mimic planets like Jupiter, as they are of a similar magnitude, and even a similar bright yellow colour! They can appear as bright yellow lights, and oncoming planes appear stationary, until they get closer to the observer. I have seen this phenomenon before, but I was not fooled so much as I was on this occasion, when Jupiter was actually in the same area of sky!

Stars – 9 Jul

On hearing David Fishwick's excellent talk, it reminded me of a few things.

The star 61 Cygni is a double-star and, through my telescope, appears as a beautiful pair of golden stars, quite close together, similar in appearance to a pair of car headlights, or cat's eyes shining in the dark. They are of 5th magnitude, so they are easily visible in a telescope.

I have tried to find Sirius B (the Pup), but I have never been able to convincingly see it. This is due to both the glare and unsteady visibility of Sirius, and to the fact that it is very close to Sirius! It is of magnitude 8, so if it could be seen further separated from Sirius, it would be an easy target in any telescope. As things stand, however, it is literally lost in the glare of Sirius. Thus, it is a notorious challenge for astronomers!

Interestingly, the New Horizon probe that bypassed Pluto in 2015 has sent back images of Proxima Centauri and Wolf 359 stars and, in the position that New Horizon sees them, they are shifted a bit from their position from Earth, so it shows the effect of parallax - New Horizon is over 4 billion miles out from Earth!

The closest stars will show the fastest motion, just like a low flying aircraft will appear to be moving faster than an aircraft flying at a higher altitude. This motion is known as Proper Motion. The star that shows the fastest "Proper Motion" is Barnard's Star, which is also a Red Dwarf star. It moves at 10.3' arcseconds per year, and in a period of 180 years it will cross a distance equivalent to the size of the Full Moon, which is about half a degree!

As a result, over many years, even the closest stars appear to only move very slowly, and distant stars are, to all intents and purposes, essentially stationary. So, it's little wonder that ancient astronomers often referred to stars as the "Fixed Stars"!

Proxima Centauri is the closest star, beyond the Sun, at 4.3 light years, and Wolf 359 is about 7.9 light years away. Despite their proximity (in astronomical terms!) they are very faint, with Wolf 359 being only of the 13th magnitude, whilst even Proxima Centauri is only of 11th magnitude. Barnard's Star is 6 light years away, and only of magnitude 9.5.

It is ironic that the most common stars in the Universe are these Red Dwarf stars, as even the closest ones are invisible to the naked eye! The stars that ARE visible are all far more luminous, and usually also far further away from us. Such an example is Deneb (magnitude 1.25), the brightest star in Cygnus, that David Fishwick pointed out was at least 2600 light years away, so it must be incredibly luminous! Even the brightest of the

Red Dwarf stars are only about 7th magnitude to 9th magnitude, so need at least binoculars, or a small telescope, in order to see them!

Ewell Astronomical Society July Meeting – a landmark

With this recent July meeting, the Society has managed to get through a complete "season" since physical meetings were able to start last September. There is, of course, never an August meeting, which I feel is a pity! They are, however, still "hybrid" in nature, with some members still attending via Zoom. Whilst we now have tea breaks, we are still unable to get down to the Staff Room

The Covid Pandemic lockdowns now seem unreal, and I find it strange to be able to attend events without having to either be "socially distanced" and/or needing to wear face masks. However, new sub-variants of Omicron, BA4, and BA5, still threaten, and Covid rates are reported to be going up again quite a bit. Thus, it's reasonable to ask the question "will we just end up back at Square One, or is it more or less over?" There are some people that still wear face masks, and there has possibly been an increase in the numbers wearing them since the new variants started to appear in late June. Time will tell!

Coverage of the James Webb Telescope – 13 Jul

Finally, on 12th – 13th July, the long awaited "Big Reveal " of the James Webb Space Telescope occurred. All the national newspapers on 13th July covered this, some of them, quite generously, with double page spreads. However, on the BBC News, on 12th July, it was still, inevitably, about the last item on the main news, although they did do a reasonable sized item on it.

The telescope had imaged part of the Eta Carina Nebula and the Southern Ring Nebula (both in the Southern Hemisphere!), as well as the Stephen's Quintet of galaxies in Perseus. It also obtained images of the NGC 3132 planetary nebula, and a distant galaxy cluster called SMAC 0723. It also carried out its first Deep Sky image, just like the Hubble Space Telescope did, to show galaxies near the beginning of the Universe. It thus obtained images of two planetary nebulae, two galaxy clusters, and a Deep Sky view.

This telescope has certainly been on a long voyage, both in space, and even on the ground, with constant delays, making it seem that it would never launch. However, launch, it did, on Christmas Day last year.

It took a long time to unfold the solar shield, set up the mirror, and calibrate all the instruments. Nevertheless, as planned, they were all ready, on time, in July. This was despite the mirror being struck by a micro meteorite, causing a bit of damage!

Even getting the James Webb Space Telescope into space, was a major achievement, as there were just so many things that could go wrong, and just one of them could ruin the mission - so No Pressure, then!

The mirror had to be finally built and polished, and one had to hope that nobody made an awful mistake, as happened with Hubble. The mirror was built in 18 separate segments, that had to work together as one. The mirror and the solar shield were too big to fit, fully deployed, within the rocket's payload shroud, so they had to be folded up inside it. Once, in space, they could be deployed in their outstretched positions, but all 107 release points of the solar shield HAD to work. It was like a hideous game of Origami, where the shield had to first be folded up to fit inside the rocket, and then unfolded, once out in space. If anything went wrong, the Telescope was too far away to be serviced from Earth, (unlike the Hubble Space Telescope).

One had to hope that the first (and only!) image, would not depict a view, saying "please remove lens cap, before launch"!

The mirror segments were aligned, so they would work together as one single mirror, by viewing a bright star. The resulting image of the star was published a few weeks before the "Big Reveal". Finally, the optical instruments were calibrated, as well, and the telescope was cooled down to close to Absolute Zero. Fortunately, to everyone's immense relief, everything did go according to plan!

Latest Observations – 16 Jul

On the evening of 15th–16th July, I saw that Comet PANSTARRS was only about half a degree to the West of the globular cluster,

M10, in the constellation of Ophiuchus. The two objects were both visible in my eyepiece at 62X. These will, obviously, make good photo shots, of two contrasting objects in the night sky, that amateur astronomers always love to see!

I checked on several globular clusters in Ophiuchus, to access the current magnitude of the comet. M10 was much brighter than the comet at about magnitude 5, whilst M9 is about 8.5 magnitude, and M12 is about magnitude 6. I estimated that the comet was a bit fainter than M9, and M12 so, as these clusters are about magnitudes 6 to 8, then the comet must have been about magnitude 8, or so.

It was now gradually becoming lower in the South and, indeed, will eventually trundle off into the Southern Hemisphere, and disappear from us. On 14th July, the comet was at its closest to Earth, but was still 168 million miles away!

The Sun has been very active, and on 15th July, there were 6 separate spot groups upon it!

In Ha light, a huge, thick filament crossed the Sun, from at least 7th July to 15th July, and created a "filaprom" on the later date, where the filament reaches the Sun's limb and is visible in its true guise, as a prominence! There were several other long prominences, on the Sun, at the same time.

When observing the Sun, one tends to forget the vast scale of it; as the filaments often cover a quarter of the Sun' s diameter (which is 864,000 miles), meaning they can reach about 200,000 miles in length!

A Rogue Shower and Observing on the hottest night of the year – 19 Jul

On the late evening of 17th-18th July, I had been observing as usual - the heatwave resulting in a run of clear nights! On this evening, I had observed Comet PANSTARRS, and then went indoors to make my usual drink of hot chocolate. As I was going outside again afterwards, I left my telescope outside. Suddenly, whilst still indoors, I became aware of the sound of RAIN falling hard - just about the worst noise that an amateur astronomer can hear! I therefore had to make a mad dash outside, to bring my scope inside only for the shower to stop after a couple of minutes. This occurred about 11.45pm.

I was particularly furious, as there was NOTHING in the weather forecast about any showers; all they were blathering on about was the heat! Despite the heat, there weren't even the usual thunderstorms to contend with! Most annoyingly, it WOULD HAVE to happen, just when I had only gone indoors for a few minutes!

Ironically, the exact same thing occurred 2 years ago, during an observation of Comet NEOWISE, where I had gone indoors for my drink, and an un-forecast rain shower rolled in. On both these occasions, there had been some cloud moving in, but I had thought that it was just the typical patchy cloud that sometimes passes over, on an otherwise clear night. It just seemed to be a bit of cumulus cloud, especially on the most recent occurrence. Also, unlike in daytime, it can be hard to assess whether clouds are shower clouds, or just benign ones.

The following night of 18th-19th July was the hottest night of the year - it, and the following day, coincided with the peak of the heatwave. It was so warm, that I was observing in my T - shirt! It was the best place to be, rather than the stuffy indoors. There was a beautiful warm wind, blowing, and the sky was clear.

It is strange to have very warm, clear nights rather than the exact opposite, with clear nights always being cold, whilst only the cloudy nights are warm. Just occasionally, however, this does happen in the Summer!

I sat out until after 3am, and saw Saturn, Jupiter, and then, Mars rising. Jupiter made a beautiful pairing with a Last Quarter Moon, being about 4 degrees "above " it (or rather to the West of it). Mars was still only 7.8' arcseconds in size, so it still appeared quite small, even at 222X. I wasn't sure if I could see a dark feature upon it, or not, especially as Mars, being at low altitude, was unsteady. However, in the past, I have seen features on Mars, when it was just below 6' arcseconds in size.

Object of the month – The Sun – Martin Howe

Our nearest star needs no introduction and, indeed, no finder chart! However, observing the Sun clearly comes with the necessary warning about the requisite precautions to be taken and, although it is common sense, it is worth reminding ourselves never to look at the Sun directly, especially through anything other than equipment that is explicitly designed for such viewing. To do so would risk permanent eye damage.

The Sun goes through an 11-year cycle of sunspot activity, and this activity is currently on the increase which is evident when viewing the Sun at the moment – recently it has been uncommon to see the Sun's disc without a single sunspot on it. You can also view and image the sunspots with relatively modest equipment which I will explain below.

The image below was taken in July 2022, and shows a lot of sunspot activity, with four prominent sunspot groups on the disc, with hints of a couple more emerging on the lefthand limb. It was a single image taken with a Canon DSLR with a 400mm zoom lens fitted with a white light filter.

So how was this photo taken?

As noted above, this was a single image taken with a DSLR, although it is very common when imaging such targets to use video cameras to capture lots of individual frames and then use software to combine the best frames into a single image. Also, other filters may be used, such as

hydrogen alpha filters on dedicated solar telescopes, which allow you to see different features on the Sun's surface and limb. For this image however, all that was used was:

- A Canon 80D DSLR (a crop sensor DLSR, so you get a bigger image in your frame compared to a full frame DSLR)
- A standard Canon zoom lens, set at 400mm (300mm is probably the minimum you would need to get a decent sized image)
- A home-made white light filter made using solar film (cheaply obtained from most online astronomy shops) attached using a standard commercial filter holder
- A shutter release cable (or alternatively just use a self-timer) to minimise vibration
- A sturdy tripod

This simple set-up is seen in the image below.

The auto-focus was used, and the image stabilisation feature was turned off. The live-view screen is used to compose the image, so I never need risk looking through the viewfinder. A range of exposures were taken between about 1/1600th of a second to 1/4000th of a second at ISO 100 and an aperture of f/6.3. The best image (shot in the camera RAW format) was then tweaked in Photoshop to create a bit more contrast and sharpness.

Before setting up my camera (which only takes a few minutes), I usually check the NASA/ESA Solar & Heliospheric Observatory website which has near real time images of the Sun so I can check out the solar activity before deciding whether to set up my camera or not:

https://soho.nascom.nasa.gov/data/realtime-images.html

If you would like to capture sunspots yourself, but are unsure how to go about it, then noting the warning in the first paragraph, please seek expert advice either through the society, astronomy literature, or an astronomy shop.

Scientists calculate the risk of someone being killed by space junk

Acknowledgement: This article was written by Monica Grady, Professor of Planetary and Space Sciences, The Open University and was published in THE CONVERSATION on 25th July 2022. It is republished in full under Creative Commons Licence. The original article, with additional links can be found here: *https://theconversation.com/scientists-calculate-the-risk-of-someone-being-killed-by-space-junk-186666*

The chance of someone being killed by space junk falling from the sky may seem ridiculously tiny. After all, nobody has yet died from such an accident, though there have been instances of injury and damage to property. But given that we are launching an increasing number of satellites, rockets, and probes into space, do we need to start taking the risk more seriously?

A new study, published in Nature Astronomy, has estimated the chance of causalities from falling rocket parts over the next ten years.

Every minute of every day, debris rains down on us from space – a hazard we are almost completely unaware of. The microscopic particles from asteroids and comets patter down through the atmosphere to settle unnoticed on the Earth's surface – adding up to around 40,000 tonnes of dust each year.

While this is not a problem for us, such debris can do damage to spacecraft - as was recently reported for the James Webb space telescope. Occasionally, a larger sample arrives as a meteorite, and maybe once every 100 years or so, a body tens-of-metres across manages to drive through the atmosphere to excavate a crater.

And – fortunately very rarely – kilometre-sized objects can make it to the surface, causing death and destruction – as shown by the lack of dinosaurs roaming the Earth today. These are examples of natural space debris, the uncontrolled arrival of which is unpredictable and spread more-or-less evenly across the globe.

The new study, however, investigated the uncontrolled arrival of artificial space debris, such as spent rocket stages, associated with rocket launches and satellites. Using mathematical modelling of the inclinations and orbits of rocket parts in space and population density below them, as well as 30 years' worth of past satellite data, the authors estimated where rocket debris and other pieces of space junk land when they fall back to Earth.

They found that there is a small, but significant, risk of parts re-entering in the coming decade. But this is more likely to happen over southern latitudes than northern ones. In fact, the study estimated that rocket bodies are approximately three times more likely to land at the latitudes of Jakarta in Indonesia, Dhaka in Bangladesh or Lagos in Nigeria than those of New York in the US, Beijing in China or Moscow in Russia.

The authors also calculated a "casualty expectation" - the risk to human life - over the next decade as a result of uncontrolled rocket re-entries. Assuming that each re-entry spreads lethal debris over an area of ten square metres, they found that there is a 10% chance of one or more casualties over the next decade, on average.

To date, the potential for debris from satellites and rockets to cause harm at the Earth's surface (or in the atmosphere to air traffic) has been regarded as negligible. Most studies of such space debris have focused on the risk generated in orbit by defunct satellites which might obstruct the safe

operation of functioning satellites. Unused fuel and batteries also lead to explosions in orbit which generate additional waste.

But as the number of entries into the rocket launch business increases - and moves from government to private enterprise - it is highly likely that the number of accidents, both in space and on Earth, such as that which followed the recent launch of the Chinese Long March 5b, will also increase. The new study warns that the 10% figure is therefore a conservative estimate.

What can be done

There are a range of technologies that make it entirely possible to control the re-entry of debris, but they are expensive to implement. For example, spacecraft can be “passivated”, whereby unused energy (such as fuel or batteries) is expended rather than stored once the lifetime of the spacecraft has ended.

The choice of orbit for a satellite can also reduce the chance of producing debris. A defunct satellite can be programmed to move into low Earth orbit, where it will burn up.

There are also attempts to launch re-usable rockets which, for example, SpaceX has demonstrated, and Blue Origin is developing. These create a lot less debris, though there will be some from paint and metal shavings, as they return to Earth in a controlled way.

Many agencies do take the risks seriously. The European Space Agency is planning a mission to attempt the capture and removal of space debris with a four-armed robot. The UN, through its Office of Outer Space Affairs, issued a set of Space Debris Mitigation Guidelines in 2010, which was reinforced in 2018. However, as the authors behind the new study point out, these are guidelines, not international law, and do not give specifics as to how mitigation activities should be implemented or controlled.

The study argues that advancing technologies and more thoughtful mission design would reduce the rate of uncontrolled re-entry of spacecraft debris, decreasing the hazard risk across the globe. It states that “uncontrolled rocket body re-entries constitute a collective action problem; solutions exist, but every launching state must adopt them.”

A requirement for governments to act together is not unprecedented, as shown by the agreement to ban ozone layer-destroying chlorofluorcarbon chemicals. But, rather sadly, this kind of action usually requires a major event with significant consequences for the northern hemisphere before action is taken. And changes to international protocols and conventions take time.

In five years, it will be 70 years since the launch of the first satellite into space. It would be a fitting celebration of that event if it could be marked by a strengthened and mandatory international treaty on space debris, ratified by all UN states. Ultimately, all nations would benefit from such an agreement.

Up Next:

ANNUAL PICNIC: Saturday 3 September 2022

Our annual picnic and observing session will be held from 6:30pm – 11:00pm on Saturday 3rd September at Headley Heath

NEXT MEETING: 8pm Friday 9 September - Nonsuch High School

Professor Brad Gibson from the University of Hull Centre for Astrophysics will give a presentation on a subject to be advised.

Ron Canham will also give his usual Sky at Night presentation for the month to come.

NEXT USER GROUP:

Suspended until further notice.

NEXT DENBIES OBSERVING SESSION:

The next session, allowing for moon rise & set times and cloud conditions, may be sometime around the new moon on 27th August. The precise date and timings of any session will be advised by email and WhatsApp a few days in advance

AD HOC OBSERVING AT WARREN FARM:

These will be at short notice when the weather is favourable. Please watch our WhatsApp feed for alerts.