

#### Another Busy Month

I guess that I have been quite fortunate with requests from suppliers and equipment manufacturers to review/showcase their products.



Figure 1: The Zhiyun Weebill 3 Gimbal

I can't begin to understand what the promotional gain there is in doing this but they keep coming back with requests so something must be working for them.

I was approached with five products to review in October, a couple of which were big ticket items so really deserved a full and thorough review.

I am quite open to the suppliers when they ask for reviews. I will not be sponsored, accept any script for the review and will openly detail any problems that I find during the review. I will not leave these out nor downplay them. They will not get to review the video before it is published.

The biggest project was the Zhiyun Weebill 3 Gimbal. This took several goes to record some behind the scenes video of me using the gimbal and produce some demonstration clips taken with it.

I repeated the scenes several times as the clips just looked as though they could have been just hand-held shots and not taken using the 3-axis gimbal. In the end I could not achieve what I would have liked to show.

I must admit that I have reviewed about 6 gimbals now with this one being the only one that I would consider using on a frequent basis. With the other 3 axis gimbals designed for mirrorless cameras the set-up time is something that must be factored in every time that you want to use them.

At least with the Weebill 3 once the initial static balance has been achieved the quick release plate with the camera attached can be removed for storage. When at location it can be quickly re-attached and ready to go in under a minute.

It is a very expensive gimbal (over £500 in the UK) so it must be a careful consideration for purchasing one.

The other product was the MagRota magnetic filter system.



26 October at 14:04 · ♥ There's going to be an exciting release of a brand new concept with magnetic filter systems by Velium shortly. I've been lucky to

have been given early access to testing and reviewing this product and I can say it is fantastic. The major change is the ability to rotate a variable ND filter set to achieve the same From day one of using the product I was pleasantly surprised at the quality of the design and the engineering of the product.

I quickly developed a rapport with the design team at Velium and they were very open to take onboard some of my thoughts about improving the product to make it more suited to stills photographers as well as their initial target of videographers.

In a design change one of my proposals to them has been accepted and I hope to be receiving the first production of the new filter design for testing and review shortly.

I also made some other suggestions for new product opportunities however they are already in production and again I will get to test the new product line when they become available.

It was quite a humbling experience to have my suggestion acted upon considering the amount of their own technical resources available in-house. I guess many years of being involved in design and serviceability of equipment helped here plus a keen mind for product improvement.

For later in this month, I will also be receiving new studio and portable lights to review, one of which is a real portable sun as the light output is phenomenal for its size.

Product reviews weren't really in my mind when I first set-up the YouTube channel back in 2007 however the steady trickle of products over the years have helped me equip my small studio with lights and wireless microphones as well as the opportunity to review a few items which were also useful in the house.

I much prefer to produce tutorials as I still get lots of request for help with Panasonic Bridge cameras - especially the FZ80/82.

My full review of the MagRota filter system is here

My full review of the Zhiyun Weebill3 gimbal is here

# Panasonic Bridge Camera Single Area AF Focus Accuracy

Two years ago I reported on an issue with the single area AF method on Panasonic Lumix Bridge cameras.

When selecting a target area using this method, I found that I was noticing quite a few images where the focus wasn't quite as sharp as I was expecting. With a little experimenting I was able to establish that with the single area AF point the boundary of the target extended slightly beyond what was shown on screen. If there was a higher contrast part to the image in that expanded boundary the camera would use that rather than the area bounded within the rectangle.



In the image above you can see that the focus rectangle is outside any area of contrast yet during the half depress of the shutter button it has set focus lock.

This is indicated with the corners of that area turning green and further confirmation by a steady green icon top right-hand side of screen. You may also notice that the elf isn't quite as sharp as it might have been.

With further experimentation I have found that if you use any of the rectangles available from the Custom Multi-mode then the boundary of the focus point looks to be exact with no overspill.

In addition, I perceive a slight improvement in AF speed when using this procedure. Another benefit is that in the AFC mode, where the precise AF point is not available, this method still works.

I have yet to complete tests using the micro four thirds system cameras and the impact this new method might have on video recording

You will find a new video showing how to set up this focus method here

Many thanks to those who have tried the method and reported back improvements in their images captured

#### High ISO and Low Light Image Capture

We normally accept that in low light we must use high ISO values in order to capture images.

The downside of this, we know, is increased noise in an image. But what if there was a way to avoid this?

A while ago I gave details on my photographic blog website about a procedure for reducing noise in an image by using a process called median stacking. It does require a program which is capable of doing this routine such as Adobe Photoshop or Affinity photo (there may be others as well). I've revisited this technique over the last couple of weeks and tried to establish a "formula" for just how many images needed to be captured in order to produce an image with much reduced noise.

This is a technique that is routinely employed by Smartphones which can capture several images in rapid succession and then use multiple techniques to produce a composite image.

If it is possible it is preferable to capture RAW images for this process as the JPEG image from the camera has already been significantly degraded through the cameras own RAW converter.



Here is a typical ISO 3200 RAW image from the Panasonic Lumix FZ80/82. You can see the amount of noise, particularly colour noise, in this image.

The camera produced this JPEG from this image:



As you can see it did a good job of removing the colour noise however this was done at the expense of image detail as the noise reduction process slightly blurs the image.

The next image was produced by taking 5 RAW images from the images captured in burst mode and then doing the usual RAW conversion and then synchronising the RAW edit across the other 4 files.

The open files were then stacked using the Using "File", "Scripts" and "Statistics" choose the "Median" as the stack mode and add the open files.

Use the attempt to align automatically the source images.

Click OK to allow the image stacking magic to happen.



The 5 raw files with the edit synchronised across all of them



Using "File", "Scripts" and "Statistics" choose the "Median" as the stack mode and add the open files. Use the attempt to align automatically the source images.

Click OK to allow the image stacking magic to happen.



The resulting image after the process has ended. I then used the "Filter - Camera RAW" to then finalise the edit adding a little sharpening and saturation to the final image.



A crop from the image captured at ISO 3200 produced by the process

The process can be used hand held providing that there is no subject movement. Hand shake will be reduced when the program tries to align the source images.

From my testing it would appear that 5 or 6 images are needed with smaller sensor cameras (1-2/3 inch types like the FZ80/82 or FZ300/330) at ISO 3200.

If you can only shoot JPEG images then the results will smooth out the noise and then add back some sharpening to complete the procedure. The image below was from 10 images captured using burst mode at ISO 3200 and combined in Photoshop with the median stacking routine.



The Affinity photo editing program (version 2.0 has been released) also provides this useful stacking routine. It isn't quite as slick as photo shop as you have to add the images manually to the stack whereas Photoshop allows you to add images that have already been opened.



Start with "File", "New Stack" and add the files that you want to combine. Once you press OK the stack will begin to process.



By default the Stack operation is Median so no further action is required.



The final image from 5 JPEG images using Affinity Photo Median Stack. Added a little blue and red saturation.

That leads onto commercial noise reduction programs.

I suppose the best known one of these is TOPAZ DeNoise AI which retails at £80, 80\$. (Black Friday deal on at the moment until Dec 2<sup>nd</sup> is £60,\$60)

We've all had the experience of shooting at night and being forced to use high ISOs in order to get the image, knowing full well we'll suffer the consequences of noise and lack of detail when editing in post.

With Topaz Labs DeNoise AI, you can happily take those night shots knowing that there is a solution to editing crystal clear images.

The software is able to differentiate between fine grain noise and fine detail without losing any image detail. This is critical especially when you have a highly detailed image.

I recommend you download the trial and have a play around and try a few of your images to see the results for yourself.



The ISO3200 camera RAW image put through Topaz DeNoise AI and further enhanced in Photoshop.

The advantage is that only the one image is needed for this process. In a workflow you would de-noise the image and then apply other corrections in your usual editor.

I tried the de-noise program on several image types and the program has several useful feature.

You can selectively apply noise reduction by adding masks to the image. If you regularly shoot in lighting situations which demand that you have to use high ISO values or shoots sports photography which needs fast shutter speeds requiring you to again select high shutter speeds than the Topaz Denoise program might be a very good option - especially with the reduction in price at the moment. It doesn't work for every image and in some cases you do get weird results. If you do you can always use the selective mode and mask out those areas which don't quite work out.





In the top Topaz Denoised 200% crop image, at ISO3200 from the FZ82, the upper the area of trees to the right of the canal bridge have become a water colour effect compared to the original image below it.

This was probably a good candidate for local adjustment rather than a global application of the noise reduction program. <u>Full details over at the Topaz labs website</u>

Another Month of In depth Reviews is on the Calendar

Last month saw several in-depth reviews for both YouTube and Amazon for various suppliers and this has led to the request for me to do more reviews. At this time of year it can be making good use of my time as I'm not a great fan of winter photography and extreme cold weather. They can be quite time consuming requiring full functional testing before the actual filming of the reviews. I've also got a few ideas for more photography with both Panasonic and Sony Bridge cameras.

Where Are We Going With Mirrorless Cameras?



The Canon R7 Mirrorless Camera

Sony, Canon and Nikon are now producing a range of mirrorless cameras to replace their existing DSLR cameras.

Many of these have new lens mounts meaning the additional purchase of new lenses. Legacy lenses may be used with adaptors and usually without loss of functionality. Many of these new cameras are APS-C sensor based and often utilise existing sensors and processing. My question is WHY? I know from a lot of your comments that you no longer want the burden of carrying heavy and large camera bodies plus at least a couple of additional lenses.



The Canon EOS M6 mk2

If we take, for example, the APS-C base Canon EOS M camera (notably the M5 or M5 mk2 or the M6 mk2) we have a remarkable camera, small size, lightweight with a matching set of M-mount lenses and access to the whole range of EF and EFS lenses with adaptor. If you pair the 32M EOS M6 mk2 with the EOS M 32mm F1.8 lens you have a system that can fully deliver the full potential of that sensor. This camera is half the size of the R7, shown above, and half the price. Just add the optional EVF and you have a great camera.

I wonder how many of you have considered moving up to this new range of cameras?

# The World's Most Powerful Light Wand?

ZHIYUN, known for its brilliant range of gimbals and stabilisers, has diversified into the lighting world. Their brand new FIVERAY FR100C portable LED stick is five times brighter than other portable lighting accessories and I got the chance to test it recently.



## The ZHIYUN Fiveray FR100C Light Wand

Not only is it the brightness where the FR100C excels, it also able to create a staggering range of colours. It supports a full colour temperature range from 2700K-6300K, plus RGB hue, saturation and brightness using the SHI full-colour mode. This allows you to create the exact lighting scene you require, indoors or out.

The White light is extremely bright with the output measuring at up to 20708 lux at 0.3m, which is 0-100% dimmable and extremely soft thanks to the frosted shade.

For cinematic effects, when in the HSI mode, the control dial allows you to set  $0-360^{\circ}$  hue as well as 100% saturation and 100% Intensity. Accuracy is an impressive TLCI 97.The 1/4" threaded hole in the base allows simple mounting to light stands and tripods.

There is a built-in 6S battery (2600 mAh) with a 21 minute runtime in full power or up to 2 hours and 16 min in 50% brightness. 120W PD via USB-C fast charging is employed. When the battery is fully charged the lamp can be powered by an external 120W power supply (24v 6A).

The light will not overheat due to an intelligent cooling system which features no less than six fans which automatically deploy once a pre-set temperature is reached. The fans are audible when at full power.

The light features a "Max" mode which effectively doubles the light output (both banks of 50W beads are power to full brightness), however this comes with a caveat as the light temperature is set at 4000K and so is not as useful in scenes where true daylight operation at 5600K is needed.

The only criticism I have of this light is the sensitivity of the multifunction dial/switch. Quite often I found that in trying to rotate the dial to set a brightness level I would inadvertently click into one of the operating modes which are switches in the 12, 3, 6 and 9 o'clock positions. Not a show stopper, more of a nuisance.

The light costs £249 in the UK and the kit comes with a barn door attachment, soft diffuser and semi-rigid carry case.

## Nuisance Spam Emails

Over the past month or so I have started to receive, on average, about 30 spam emails every day from all manner of sites mainly based in the USA.

I thought that there were rules on unsolicited emails was meant to prevent this (in both the EU and USA).

I found that the unsubscribe link at the bottom of these emails would not work or would result in being inadvertently subscribed to yet another mailing database.

It's not as easy as just selecting the lot of them and hit delete as I often get emails from subscribers and other people who sometimes get caught as spam email.

It is necessary to block all future emails from these sites without opening up that particular email as that can expose you to more problems like malware and trojans etc.

I found this <u>very useful article on the Avast website</u> outlining how to block these senders correctly.

Since I started these process every time a received a batch of emails I have cut the number that arrives significantly.



So that's all for this newsletter, I will attempt to get out another one before Christmas. Graham

A fungus cleaned up using Topaz DeNoise