



NUUSBRIEF

BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
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2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
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	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Aksie op die strand	Linda Bronkhorst	
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	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam Fabritson	
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7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

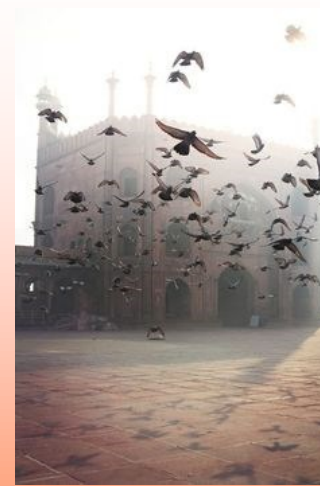
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

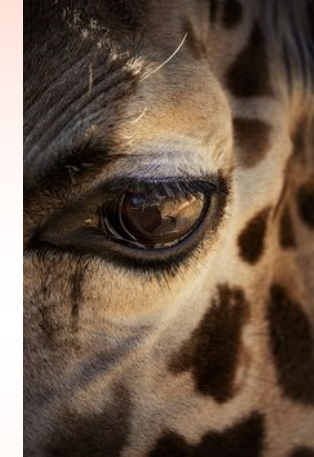
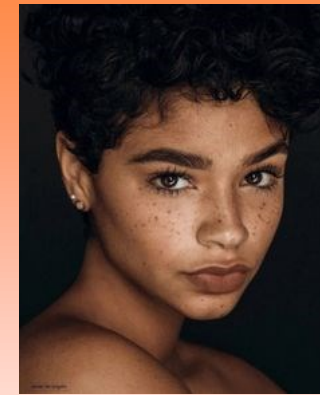


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



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Elsa E van
Dyk

Fotograaf - Michael Feistel



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	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
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Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

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Club points position

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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

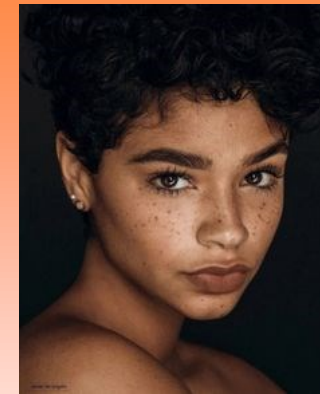


SALONNE

- 2023/09/09 MARITZBURG
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2023/10/14 PSSA UP AND COMING
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KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2

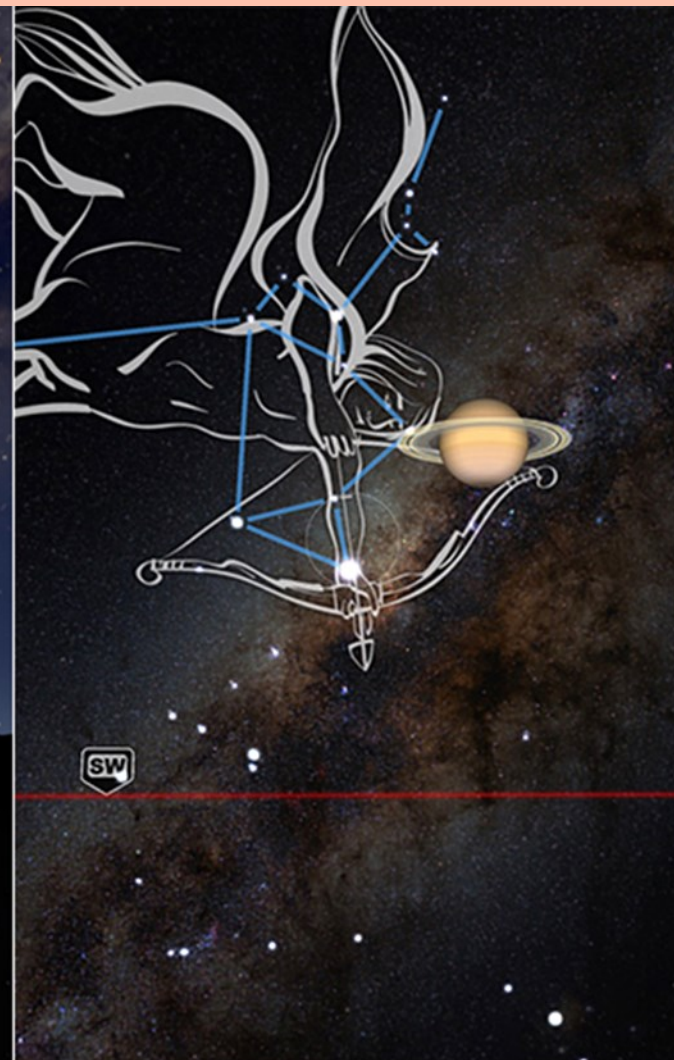


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Aksee op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallopang into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murde 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Eligphant leftovers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Alou	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

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Sarie du Plessis 5 September



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Kamerafotos 4

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TEMA - Foto wat 'n storie vertel

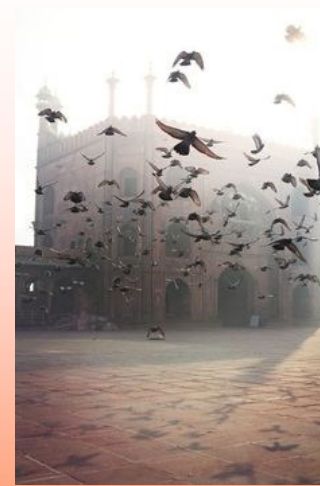
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Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

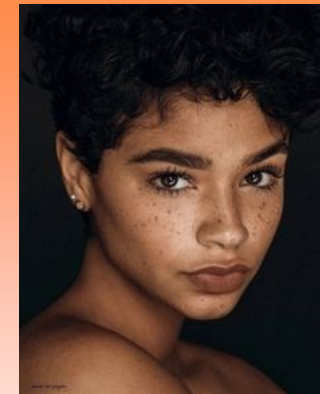


SALONNE

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KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



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Photo by [John Lemieux](#) on Flickr



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Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia	Liren
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
	Alberton Camera Club	Nyala Graffes	Wina	Helberg
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard	Potgieter
	Brandpunt Kameraklub	Dary Albert	Gerhard	Potgieter
	Brandpunt Kameraklub	On top of the world	Gerhard	Potgieter
	Klerksdorp Fotografie Klub	Akies op die strand	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Komras in die duine	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Gallop into the light	Karen	Coetzee
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen	Coetzee
	Klerksdorp Fotografie Klub	Murle 1	Karen	Coetzee
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam	Fabritson
	Southern Suburbs Camera Club	Slow down	Jacques	Lourens
	Vereeniging Photographic Society	The joy within	Andrea	Harvard
	Vereeniging Photographic Society	The gift you see	Andrea	Harvard
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia	Liren
	Alberton Camera Club	Heat	Carolann	Beise
	Alberton Camera Club	Oors	Ben	Beiba
	Southern Suburbs Camera Club	Bigbant inflowers	Simon	Fischer
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon	Fischer
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin	Fowler
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan	Brits
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	cheedah baal	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis	Alou
	Vereeniging Photographic Society	The mating ritual	Dries	Fourie
	Vereeniging Photographic Society	Proud Dad and Mom	Dries	Fourie
	Vereeniging Photographic Society	Mystery woman 1	Francis	Oosthuysen
	Vereeniging Photographic Society	Abby RV side light	Francis	Oosthuysen
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg1	Francis	van Jaarsveld
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa	Scheepers
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

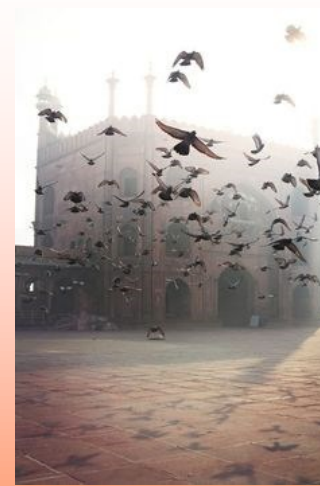
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

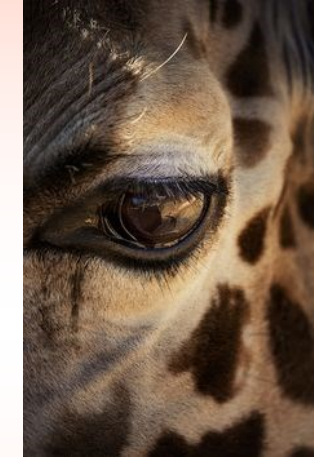
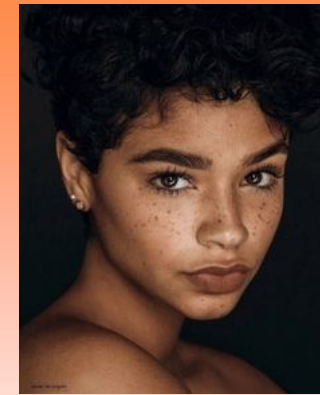


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

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Photo by [European Southern Observatory](#) on Flickr



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To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

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Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



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There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

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- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

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Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
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Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Guateng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Mykie Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Ony Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Aksie op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallop into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Musie 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritsen	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Eligant inflowers	Simon Fensch	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fensch	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	rest on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

	Junior Workers		Senior Workers		Total points
	60 pictures (scores out of 45)	Senior Workers (scores out of 45)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

Club points position

	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

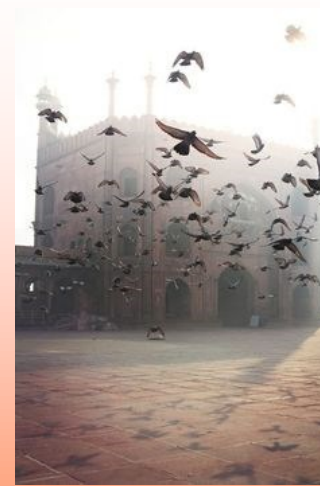
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

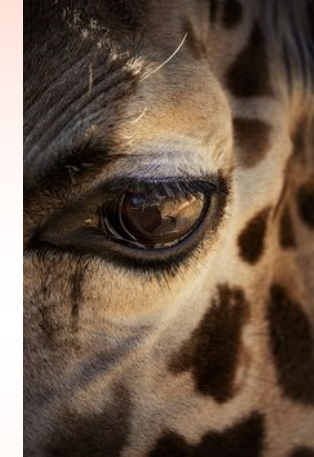
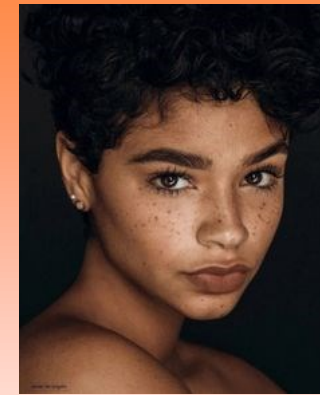


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

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- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
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BRANDPUNT

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Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
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	Brandpunt Kameraklub	Die wondryn neem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Aksee op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
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	Southern Suburbs Camera Club	Bigbaited Inflowens	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
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Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

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Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

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Club points position

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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

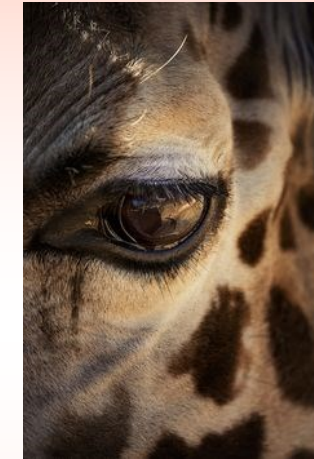
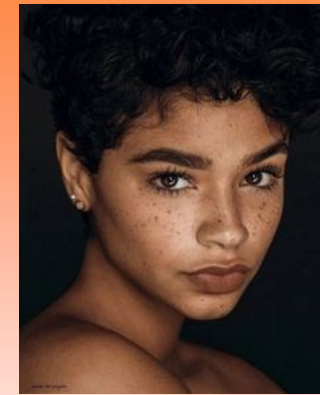


SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2

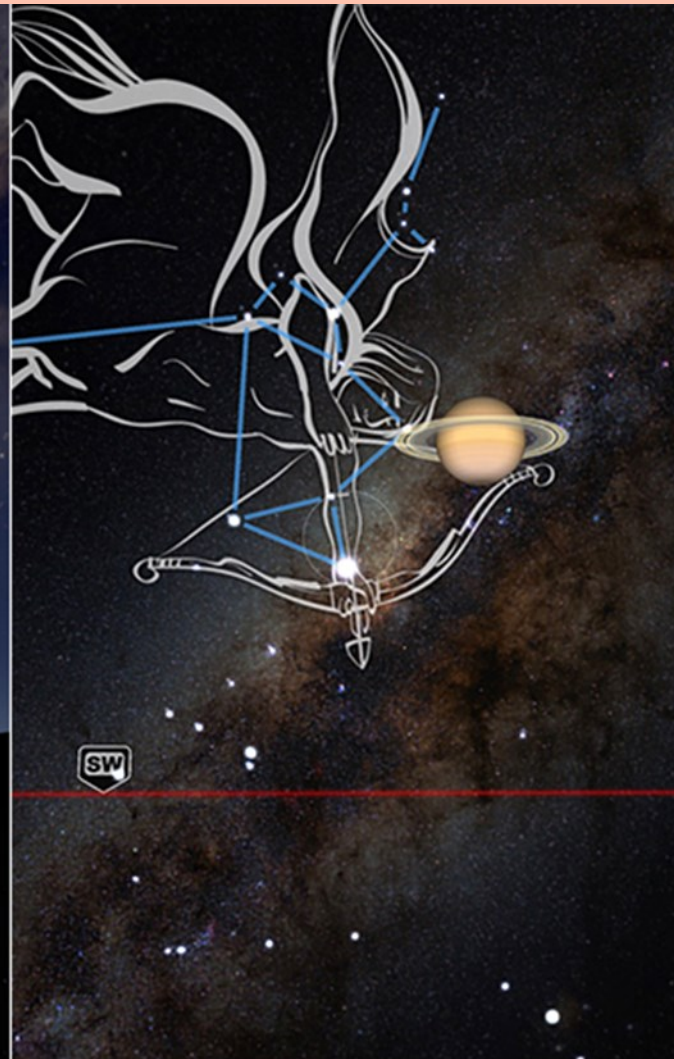


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
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Saamgestel deur Nick van der Mescht

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Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
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November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

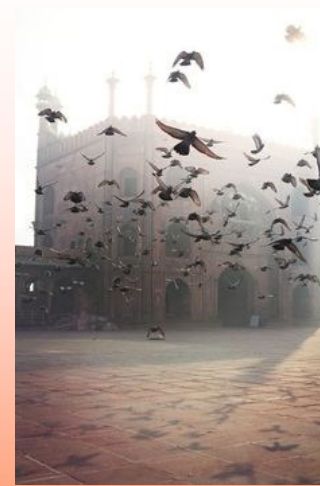
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

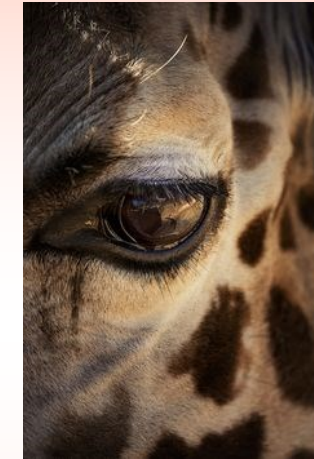
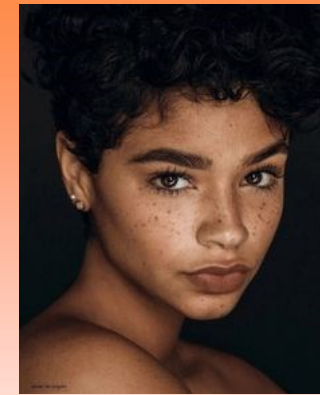


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**



Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallop into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murle 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Bigbant inflowers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Alou	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby Riv side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg1	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

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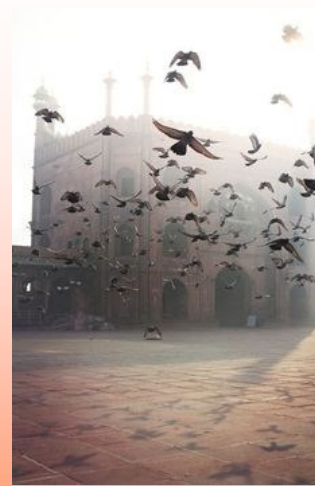
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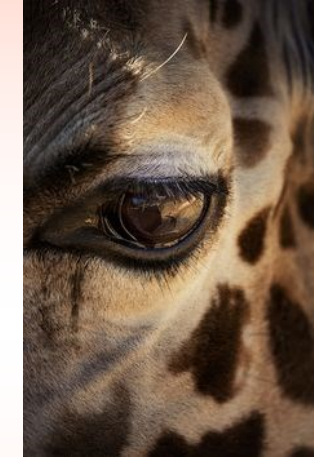
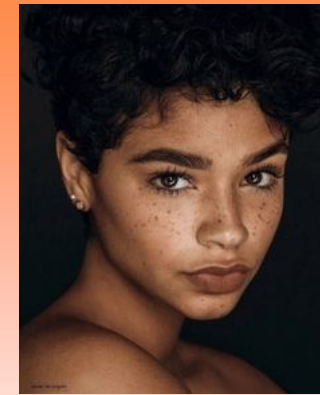


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KLUB VERGADERINGS 2023



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Selfoon Temas 2023

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Photo by [John Lemieux](#) on Flickr



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This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



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When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

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Photo by [European Southern Observatory](#) on Flickr



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Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



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No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn neem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallopers into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Musie 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Bigbant inflowers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Alou	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Alby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

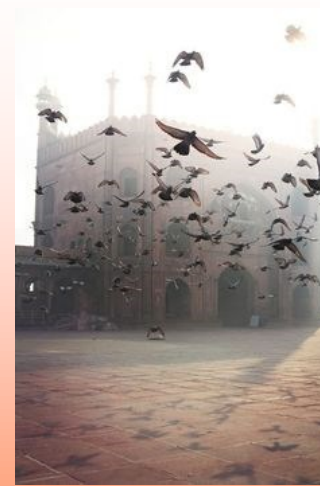
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

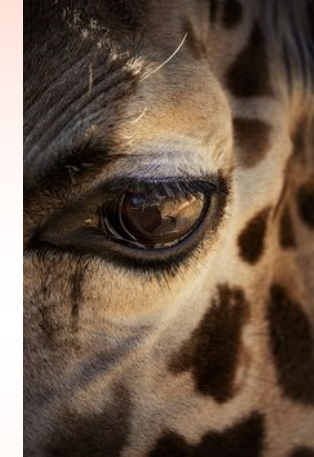
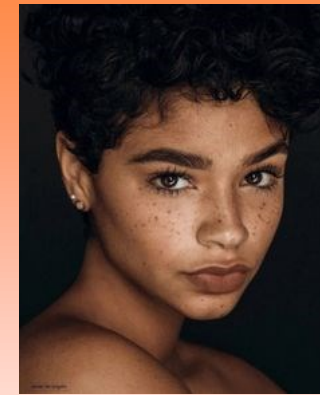


SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

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Photo by [European Southern Observatory](#) on Flickr



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Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



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Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

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Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



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	Brandpunt Kameraklub	Dary Albert	Gerhard	Potgieter
	Brandpunt Kameraklub	On top of the world	Gerhard	Potgieter
	Klerksdorp Fotografie Klub	Aksee op die strand	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Komras in die duine	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Gallopang into the light	Karen	Coetzee
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen	Coetzee
	Klerksdorp Fotografie Klub	Murde 1	Karen	Coetzee
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen	Fabritson
	Southern Suburbs Camera Club	Slow down	Jacques	Lourens
	Vereeniging Photographic Society	The joy within	Andrea	Harvard
	Vereeniging Photographic Society	The gift you see	Andrea	Harvard
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia	Liren
	Alberton Camera Club	Heat	Carolann	Beise
	Alberton Camera Club	Oors	Ben	Beiba
	Southern Suburbs Camera Club	Bigbant inflowers	Simon	Fischer
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon	Fischer
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin	Flower
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan	Brits
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis	Alou
	Vereeniging Photographic Society	The mating ritual	Dries	Fourie
	Vereeniging Photographic Society	Proud Dad and Mom	Dries	Fourie
	Vereeniging Photographic Society	Mystery woman 1	Francis	Oosthuysen
	Vereeniging Photographic Society	Abby Riv side light	Francis	Oosthuysen
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg1	Francis	van Jaarsveld
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa	Scheepers
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

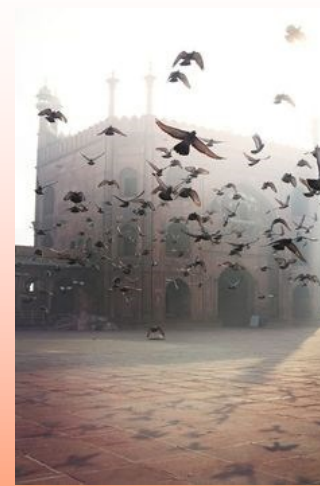
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

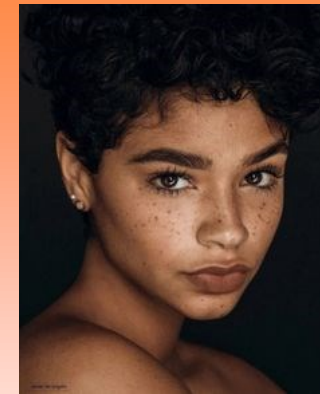


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



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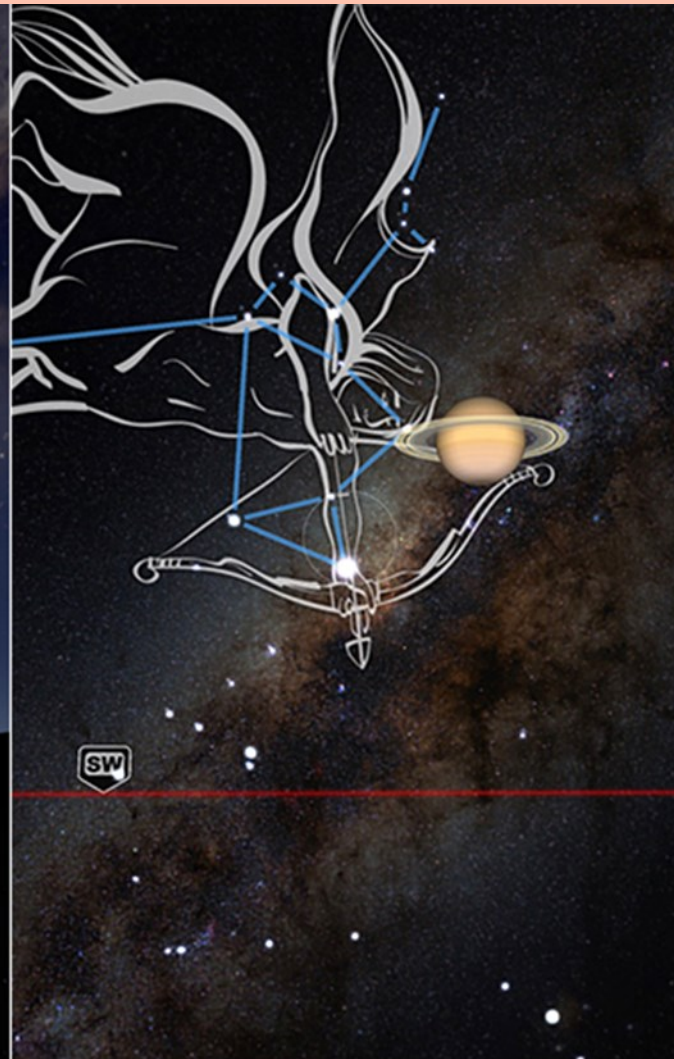


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

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NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



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Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

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Fotograaf - Peter Thomas



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	Brandpunt Kameraklub	On top of the world	Gerhard	Potgieter
	Klerksdorp Fotografie Klub	Akies op die strand	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Komras in die duine	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Gallopang into the light	Karen	Coetzee
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	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam	Fabritson
	Southern Suburbs Camera Club	Slow down	Jacques	Lourens
	Vereeniging Photographic Society	The joy within	Andrea	Harvard
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6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia	Liren
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	Southern Suburbs Camera Club	Bigbant inflowers	Simon	Fischer
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon	Fischer
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin	Flower
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan	Brits
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan	Joubert
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Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

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Club points position

Club	Total points	Position
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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

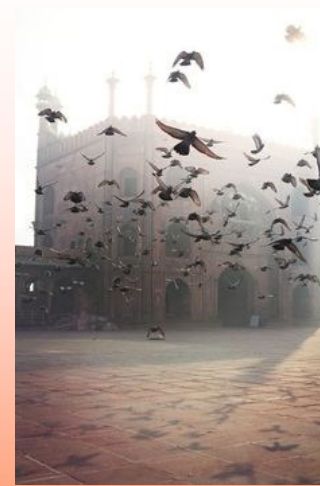
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

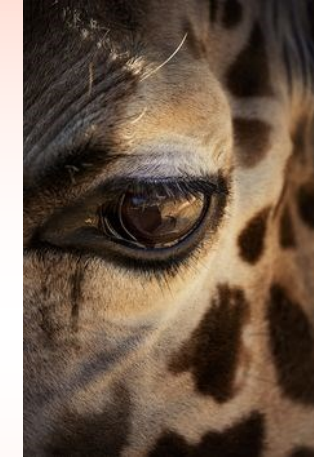
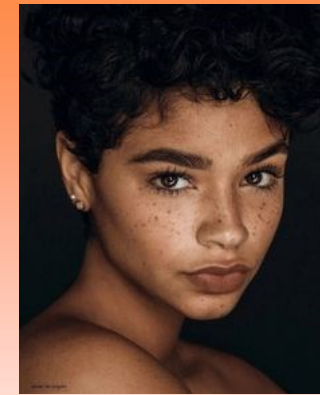


SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
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4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
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	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

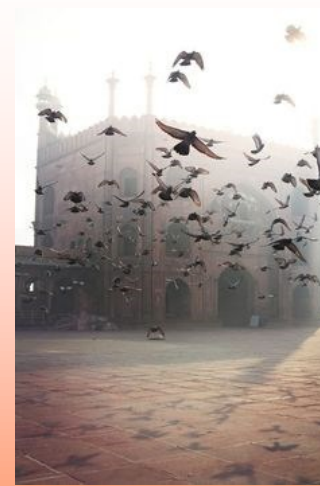
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

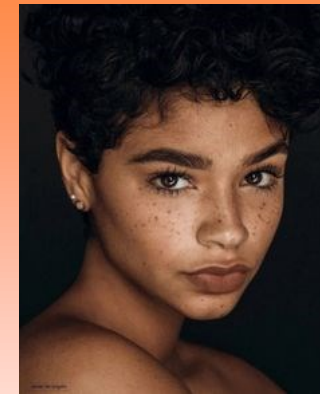


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

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This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn neem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallop into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Musie 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Bigbait throwers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Alou	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

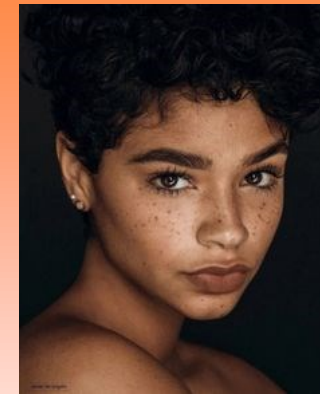


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
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To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
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- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



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Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

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If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

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Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallop into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Musie 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Eligant leftovers	Simon Fensch	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fensch	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

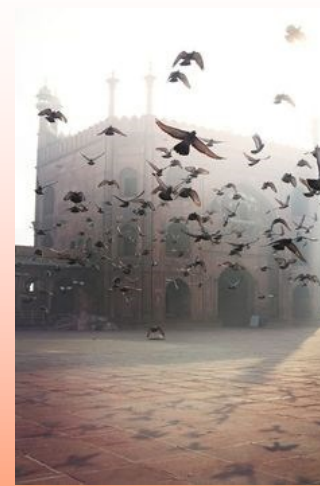
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

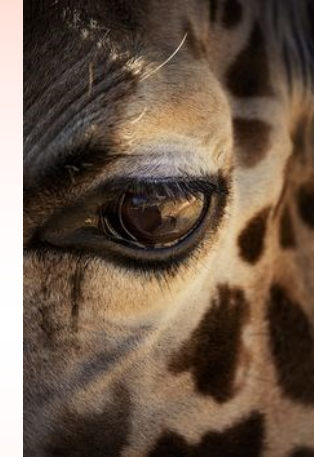
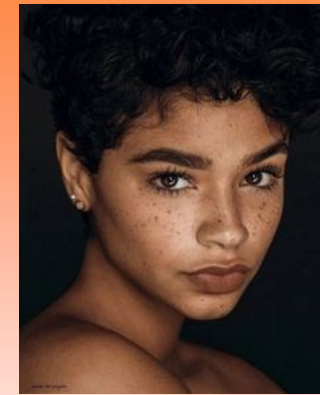


SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

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[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Wenner van Augustus se selfoofoto - Tema - Vic the Viking - Peter Thomas

Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
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Melandie Kleinhans	5	41	40	1	157	33
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Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

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	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
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	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby Riv side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

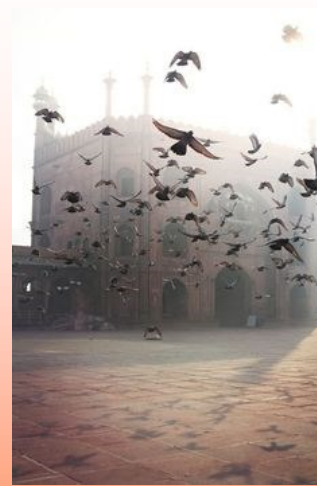
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

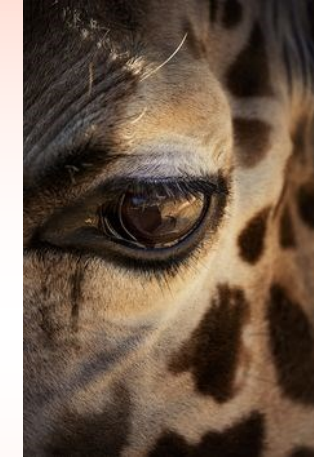
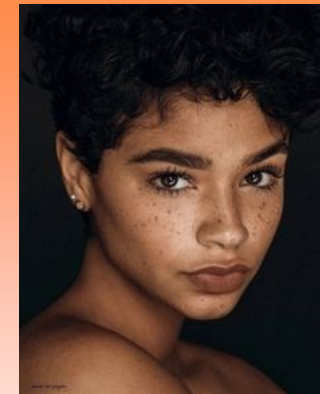


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
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	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
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	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
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8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

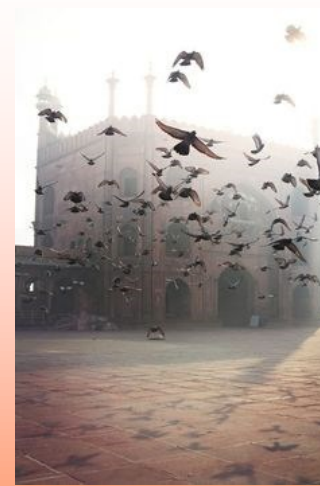
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

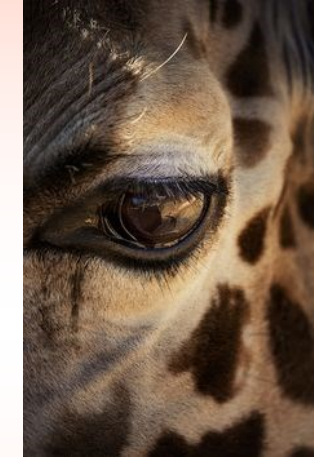
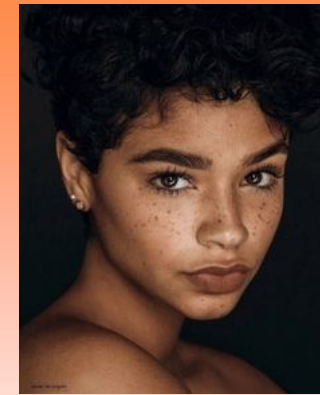


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

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Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallop into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murle 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Eligant leftovers	Simon Fensch	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fensch	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

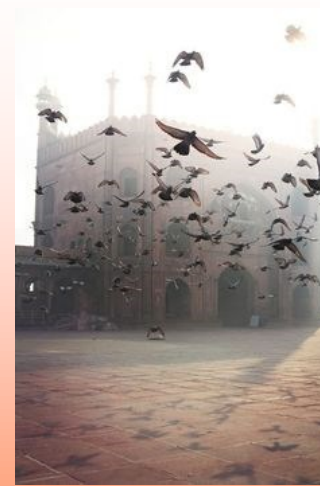
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

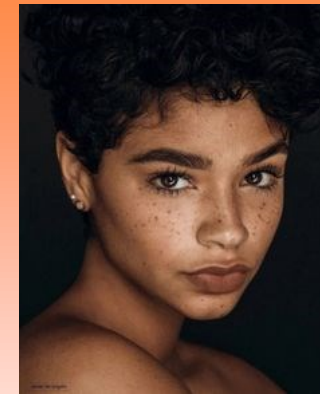


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



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Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

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The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



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Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

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This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



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When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

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Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



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To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia	Liren
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
	Alberton Camera Club	Nyala Graffes	Wina	Helberg
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard	Potgieter
	Brandpunt Kameraklub	Dary Albert	Gerhard	Potgieter
	Brandpunt Kameraklub	On top of the world	Gerhard	Potgieter
	Klerksdorp Fotografie Klub	Aksie op die strand	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Komras in die duine	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Gallop into the light	Karen	Coetzee
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen	Coetzee
	Klerksdorp Fotografie Klub	Murde 1	Karen	Coetzee
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam	Fabritson
	Southern Suburbs Camera Club	Slow down	Jacques	Lourens
	Vereeniging Photographic Society	The joy within	Andrea	Harvard
	Vereeniging Photographic Society	The gift you see	Andrea	Harvard
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia	Liren
	Alberton Camera Club	Heat	Carolann	Beise
	Alberton Camera Club	Oors	Ben	Beiba
	Southern Suburbs Camera Club	Bigbaited leftovers	Simon	Fischer
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon	Fischer
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin	Flower
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan	Brits
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	cheedah baal	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis	Alou
	Vereeniging Photographic Society	The mating ritual	Dries	Fourie
	Vereeniging Photographic Society	Proud Dad and Mom	Dries	Fourie
	Vereeniging Photographic Society	Mystery woman 1	Francis	Oosthuysen
	Vereeniging Photographic Society	Abby RV side light	Francis	Oosthuysen
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis	van Jaarsveld
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa	Scheepers
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

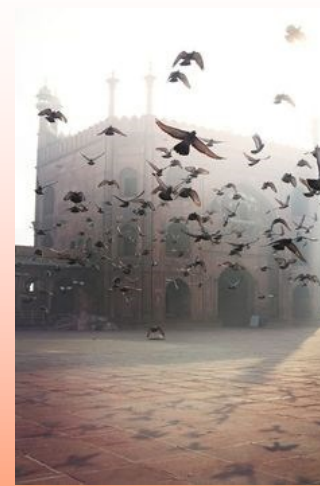
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

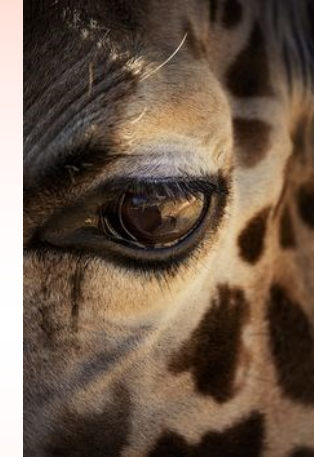
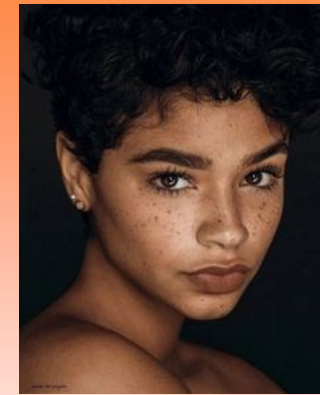


SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



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Photo by [Ahmed Rizkhaan](#)



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No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

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If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

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Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

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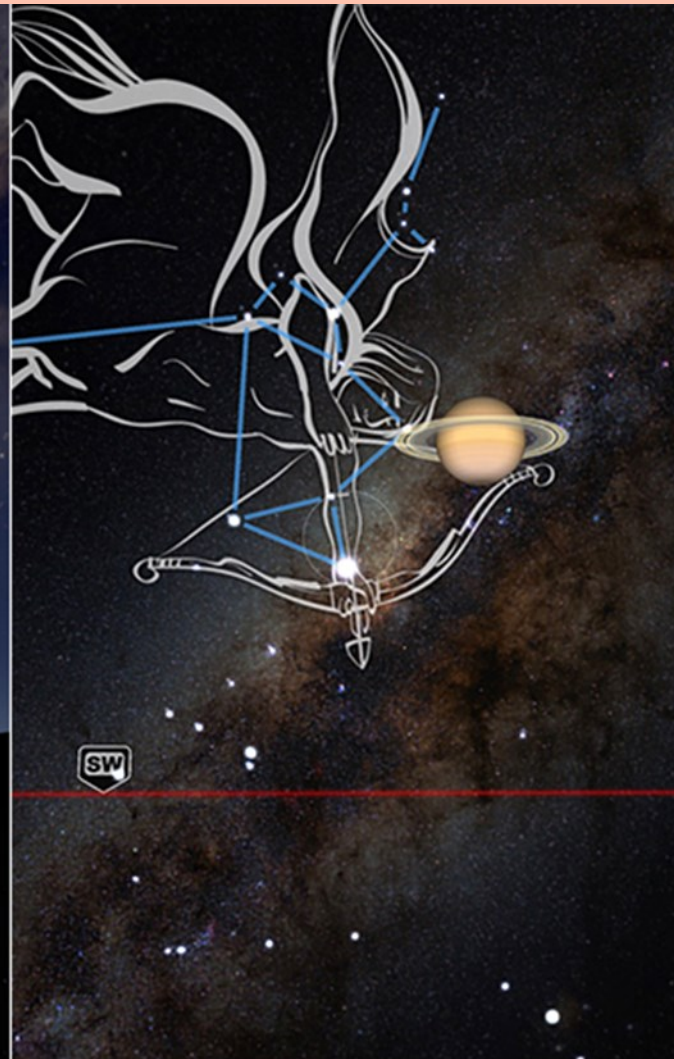


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

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Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
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NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn neem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallop into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Musie 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Bigbait throwers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

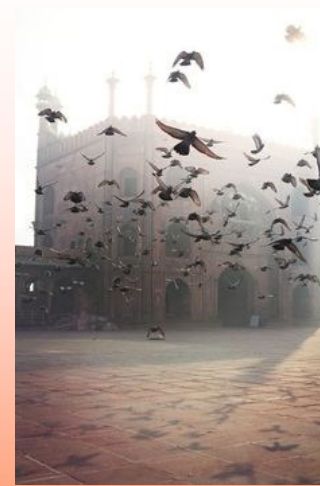
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

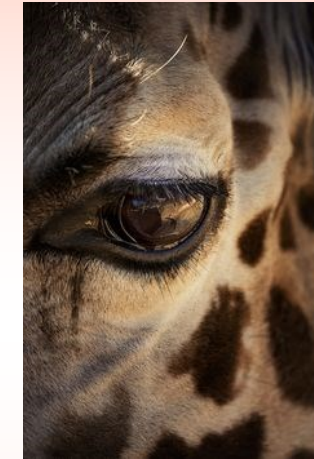
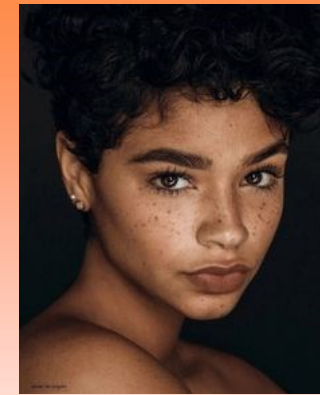


SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



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No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

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Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



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Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

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- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
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NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
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Peter Thomas is 2de in die AV kategorie

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Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

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Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

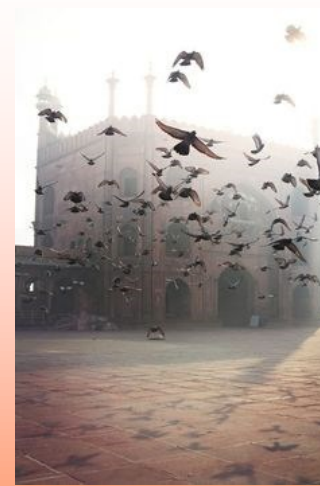
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

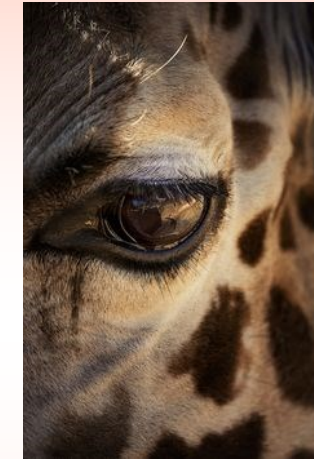
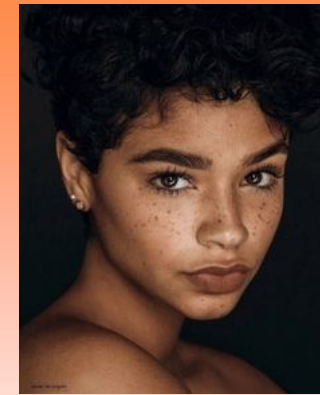


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



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Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
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Club points position

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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

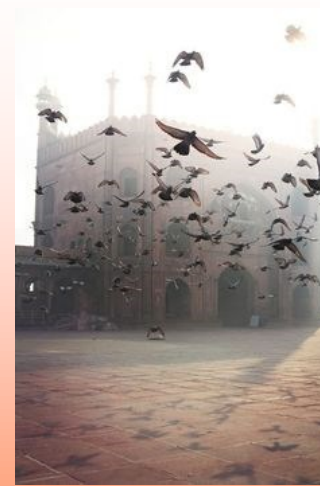
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

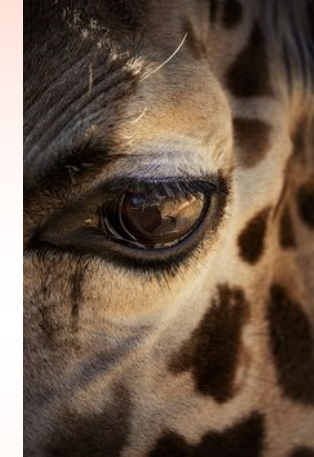
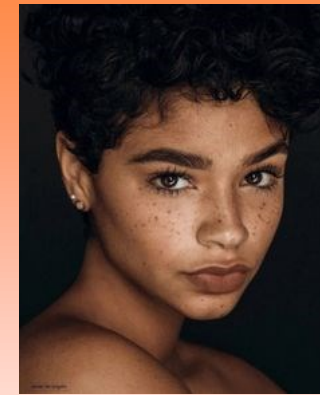


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia	Liren
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
	Alberton Camera Club	Nyala Graffes	Wina	Helberg
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard	Potgieter
	Brandpunt Kameraklub	Dary Albert	Gerhard	Potgieter
	Brandpunt Kameraklub	On top of the world	Gerhard	Potgieter
	Klerksdorp Fotografie Klub	Akies op die strand	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Komras in die duine	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Gallopers into the light	Karen	Coetzee
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen	Coetzee
	Klerksdorp Fotografie Klub	Murde 1	Karen	Coetzee
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam	Fabritson
	Southern Suburbs Camera Club	Slow down	Jacques	Lourens
	Vereeniging Photographic Society	The joy within	Andrea	Harvard
	Vereeniging Photographic Society	The gift you see	Andrea	Harvard
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia	Liren
	Alberton Camera Club	Heat	Carolann	Beise
	Alberton Camera Club	Oors	Ben	Beiba
	Southern Suburbs Camera Club	Bigbant inflowers	Simon	Fischer
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon	Fischer
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin	Flower
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan	Brits
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis	Alou
	Vereeniging Photographic Society	The mating ritual	Dries	Fourie
	Vereeniging Photographic Society	Proud Dad and Mom	Dries	Fourie
	Vereeniging Photographic Society	Mystery woman 1	Francis	Oosthuysen
	Vereeniging Photographic Society	Alby RV side light	Francis	Oosthuysen
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg1	Francis	van Jaarsveld
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa	Scheepers
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



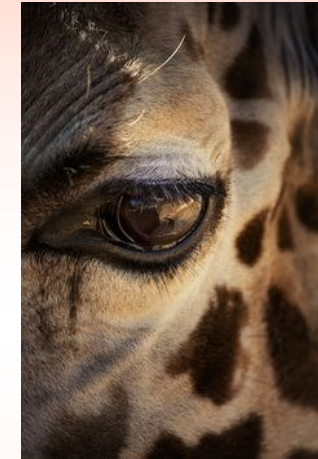
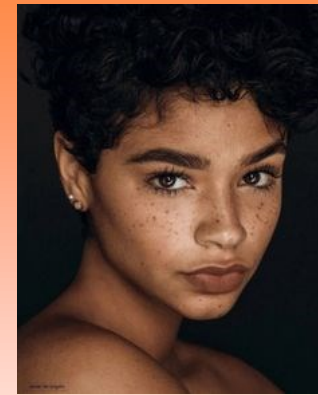
Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
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SALONNE

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Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**



KLUB VERGADERINGS 2023

Selfoonfotos 3

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TEMA - Diere

+ 2 SELFOONFOTOS (ope)

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If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

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You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



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When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

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Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



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Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2

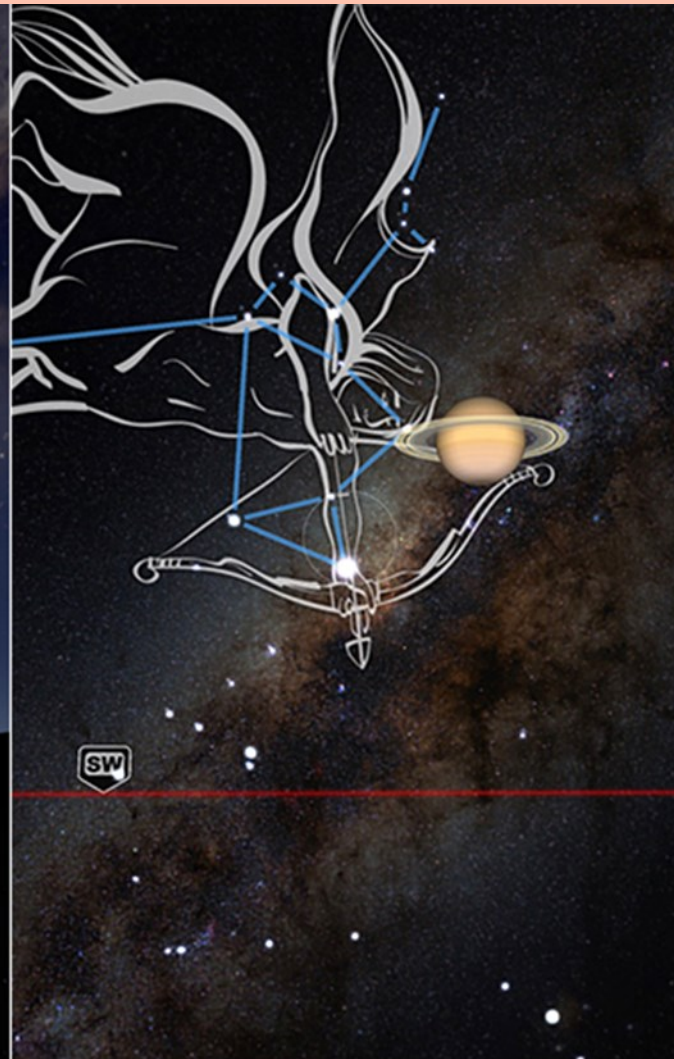


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallopers into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murle 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Bigbant inflowers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby Riv side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

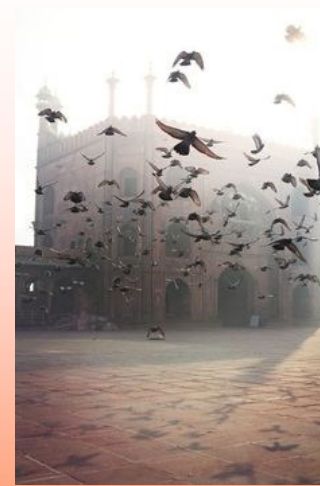
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

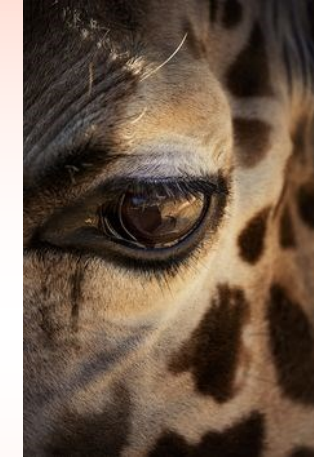
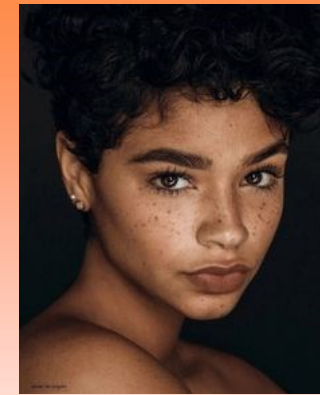


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vër gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

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Photo by [John Lemieux](#) on Flickr



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Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

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No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



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Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

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If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

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Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
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NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Aksee op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallopers into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murde 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Eligant leftovers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baar	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Alou	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

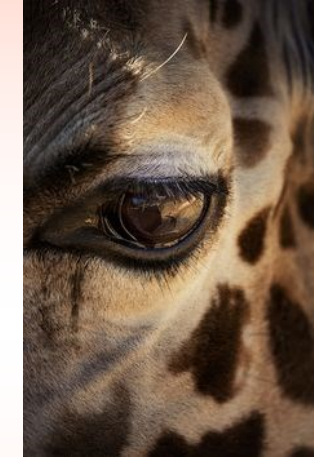
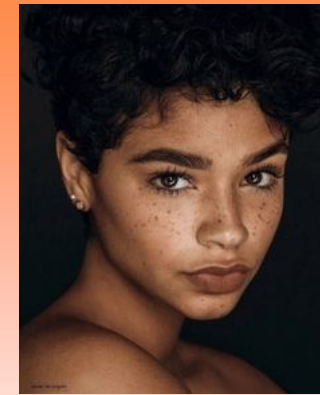


SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



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Photo by [Bala Sivakumar](#) on Flickr



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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

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Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
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Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

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A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

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	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
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Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

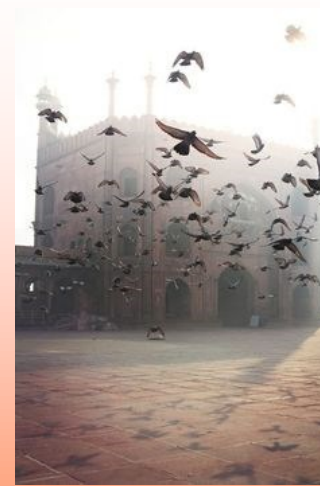
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

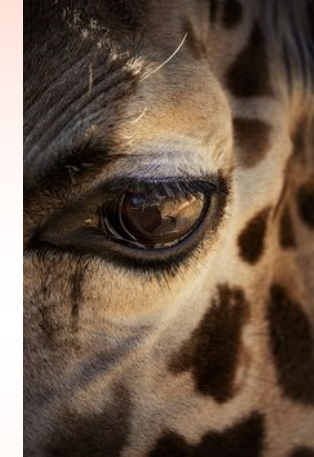
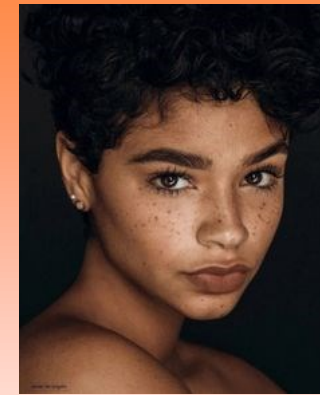


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**



Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



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 Karin Tino
 Melandie Trevor
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Club points position

Club	Total points	Position
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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

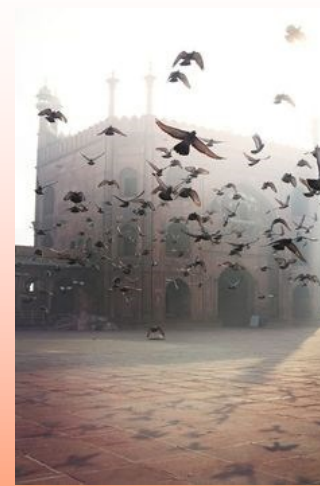
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

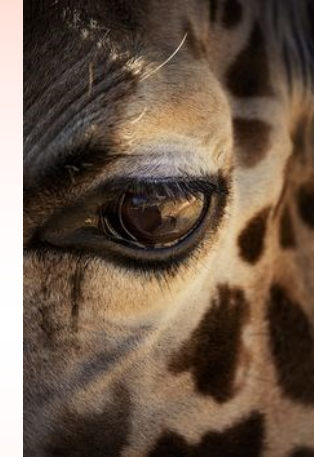
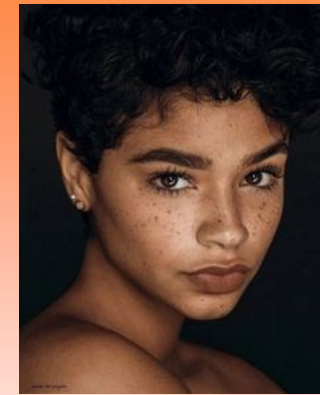


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
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KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2

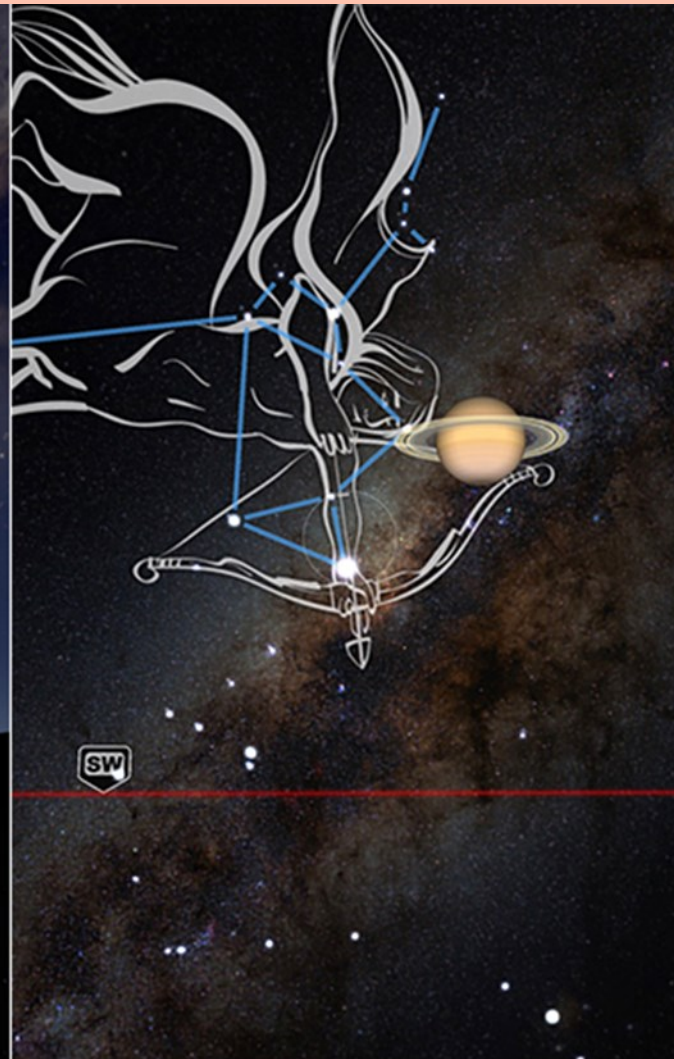


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600

Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Aksee op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallop into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murle 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Bigbaited leftovers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baal	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaz	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg1	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
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Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

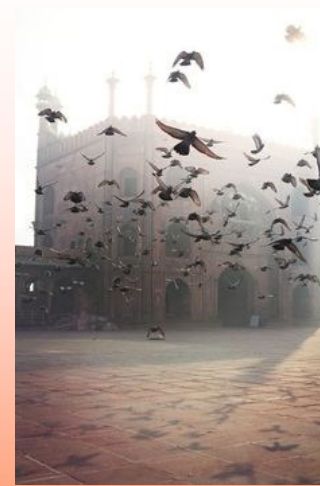
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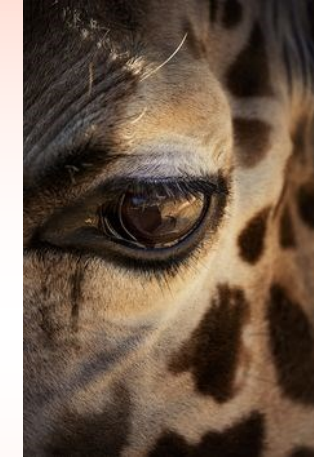
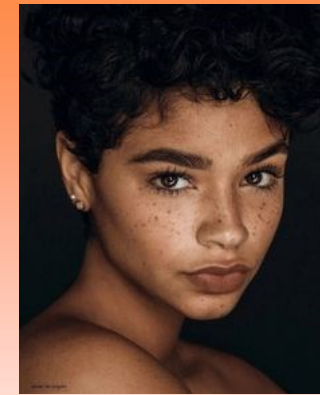


SALONNE

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- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
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KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



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Post-process the shot.



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If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

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You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



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When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

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Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



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Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



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No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Wenner van Augustus se selfoofoto - Tema - Vic the Viking - Peter Thomas

Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia	Liren
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
	Alberton Camera Club	Nyala Graffes	Wina	Helberg
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard	Potgieter
	Brandpunt Kameraklub	Dary Albert	Gerhard	Potgieter
	Brandpunt Kameraklub	On top of the world	Gerhard	Potgieter
	Klerksdorp Fotografie Klub	Aksee op die strand	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Komras in die duine	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Gallopang into the light	Karen	Coetzee
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen	Coetzee
	Klerksdorp Fotografie Klub	Murde 1	Karen	Coetzee
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam	Fabritson
	Southern Suburbs Camera Club	Slow down	Jacques	Lourens
	Vereeniging Photographic Society	The joy within	Andrea	Harvard
	Vereeniging Photographic Society	The gift you see	Andrea	Harvard
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia	Liren
	Alberton Camera Club	Heat	Carolann	Beise
	Alberton Camera Club	Oors	Ben	Beiba
	Southern Suburbs Camera Club	Bigbant inflowers	Simon	Fischer
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon	Fischer
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin	Fowler
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan	Brits
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	cheedah baal	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis	Alou
	Vereeniging Photographic Society	The mating ritual	Dries	Fourie
	Vereeniging Photographic Society	Proud Dad and Mom	Dries	Fourie
	Vereeniging Photographic Society	Mystery woman 1	Francis	Oosthuysen
	Vereeniging Photographic Society	Alby RV side light	Francis	Oosthuysen
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis	van Jaarsveld
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa	Scheepers
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

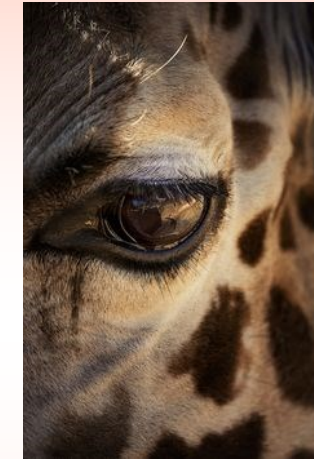
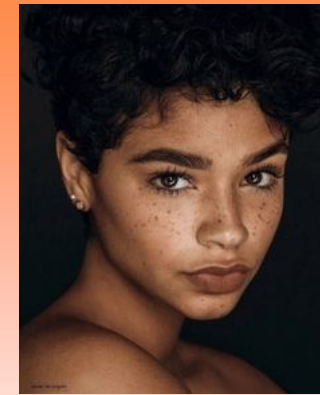


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vër gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

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Photo by [John Lemieux](#) on Flickr



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Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

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It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Wenner van Augustus se selfoofoto - Tema - Vic the Viking - Peter Thomas

Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia	Liren
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
	Alberton Camera Club	Nyala Graffes	Wina	Helberg
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard	Potgieter
	Brandpunt Kameraklub	Dary Albert	Gerhard	Potgieter
	Brandpunt Kameraklub	On top of the world	Gerhard	Potgieter
	Klerksdorp Fotografie Klub	Akies op die strand	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Komras in die duine	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Gallopers into the light	Karen	Coetzee
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen	Coetzee
	Klerksdorp Fotografie Klub	Murde 1	Karen	Coetzee
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam	Fabritson
	Southern Suburbs Camera Club	Slow down	Jacques	Lourens
	Vereeniging Photographic Society	The joy within	Andrea	Harvard
	Vereeniging Photographic Society	The gift you see	Andrea	Harvard
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia	Liren
	Alberton Camera Club	Heat	Carolann	Beise
	Alberton Camera Club	Oors	Ben	Beiba
	Southern Suburbs Camera Club	Bigbant inflowers	Simon	Fischer
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon	Fischer
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin	Flower
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan	Brits
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis	Alou
	Vereeniging Photographic Society	The mating ritual	Dries	Fourie
	Vereeniging Photographic Society	Proud Dad and Mom	Dries	Fourie
	Vereeniging Photographic Society	Mystery woman 1	Francis	Oosthuysen
	Vereeniging Photographic Society	Abby RV side light	Francis	Oosthuysen
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis	van Jaarsveld
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa	Scheepers
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 45)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

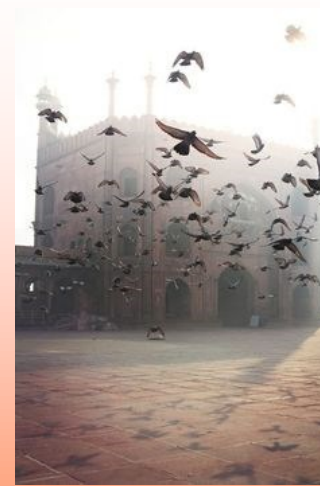
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

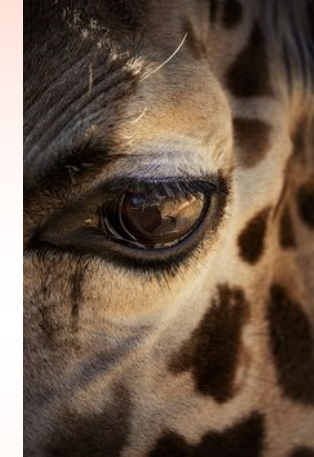
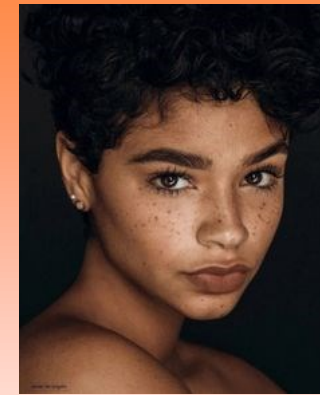


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**



Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

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Photo by [Bala Sivakumar](#) on Flickr



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There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

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- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

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When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

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- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
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NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



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Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
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Melandie Kleinhans	5	41	40	1	157	33
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Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
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	Brandpunt Kameraklub	On top of the world	Gerhard	Potgieter
	Klerksdorp Fotografie Klub	Aksie op die strand	Linda	Bronkhorst
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Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

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A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

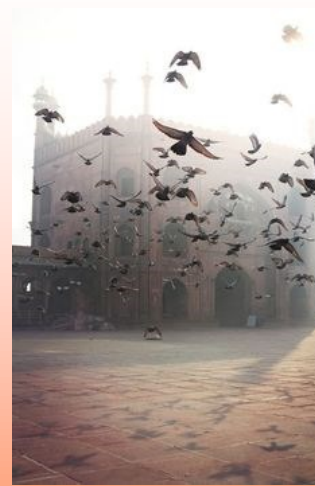
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

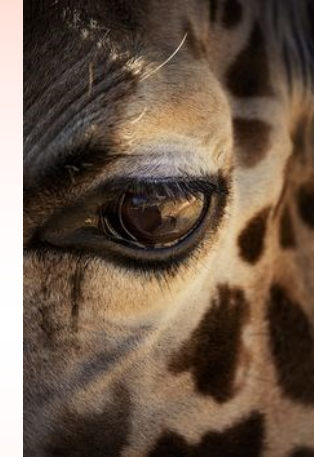
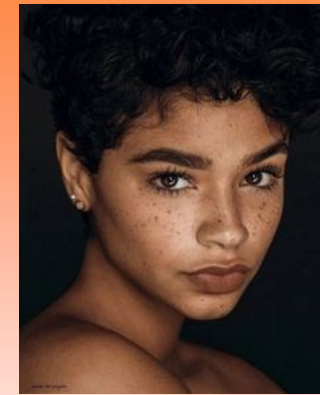


SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2

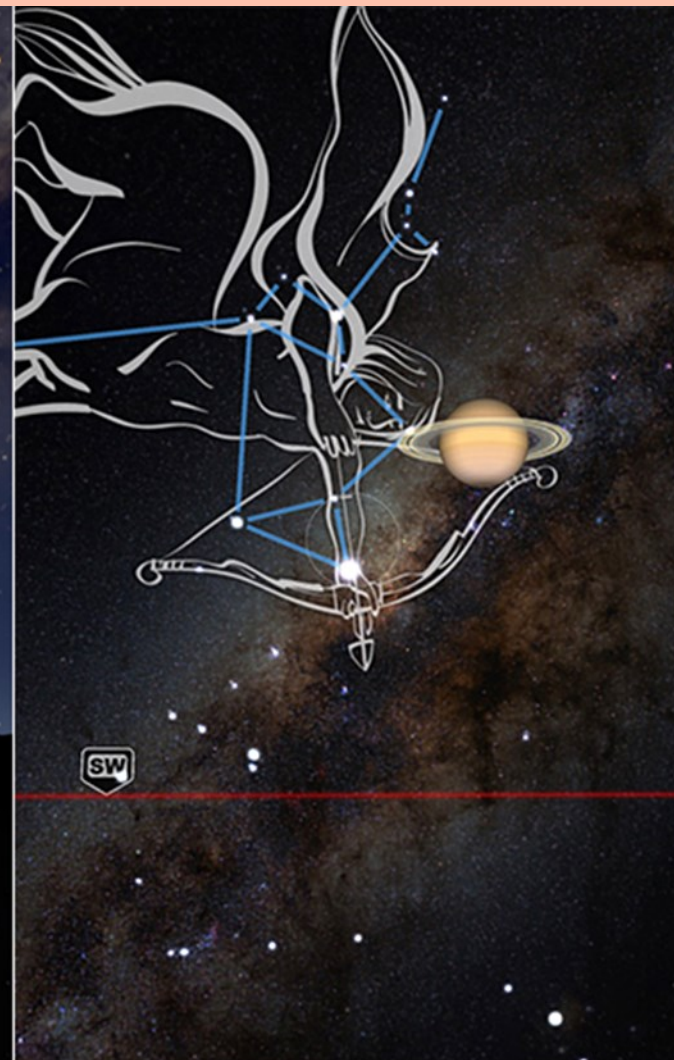


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



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	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
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Club points position

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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

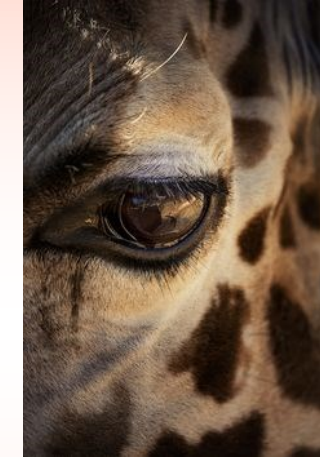
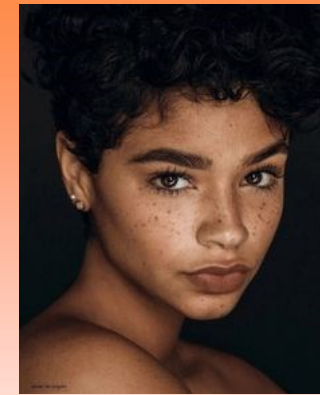


SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

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Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia	Liren
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
	Alberton Camera Club	Nyala Graffes	Wina	Helberg
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard	Potgieter
	Brandpunt Kameraklub	Dary Albert	Gerhard	Potgieter
	Brandpunt Kameraklub	On top of the world	Gerhard	Potgieter
	Klerksdorp Fotografie Klub	Aksie op die strand	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Komras in die duine	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Gallop into the light	Karen	Coetzee
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen	Coetzee
	Klerksdorp Fotografie Klub	Murde 1	Karen	Coetzee
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam	Fabritson
	Southern Suburbs Camera Club	Slow down	Jacques	Lourens
	Vereeniging Photographic Society	The joy within	Andrea	Harvard
	Vereeniging Photographic Society	The gift you see	Andrea	Harvard
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia	Liren
	Alberton Camera Club	Heat	Carolann	Beise
	Alberton Camera Club	Oors	Ben	Beiba
	Southern Suburbs Camera Club	Bigbant inflowers	Simon	Fischer
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon	Fischer
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin	Flower
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan	Brits
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis	Alou
	Vereeniging Photographic Society	The mating ritual	Dries	Fourie
	Vereeniging Photographic Society	Proud Dad and Mom	Dries	Fourie
	Vereeniging Photographic Society	Mystery woman 1	Francis	Oosthuysen
	Vereeniging Photographic Society	Alby RV side light	Francis	Oosthuysen
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis	van Jaarsveld
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa	Scheepers
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



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Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

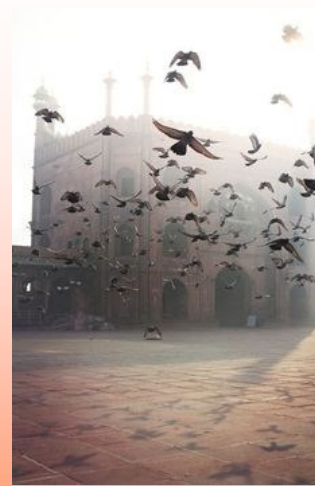
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

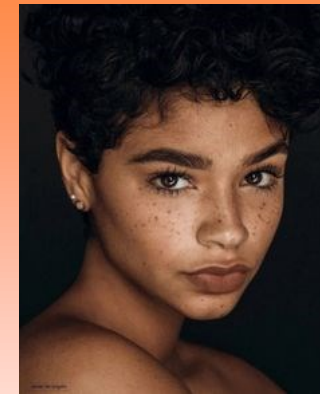


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KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**



Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



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Photo by [John Lemieux](#) on Flickr



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Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Guateng Region Results - Sept '23- Awards:

The following acknowledgements are to be done at the end of the event:

	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Aksee op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallop into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murle 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Bigbant inflowers	Simon Fensch	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fensch	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baal	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaz	Francis Alou	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

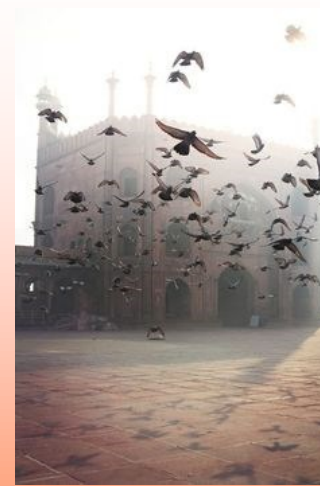
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

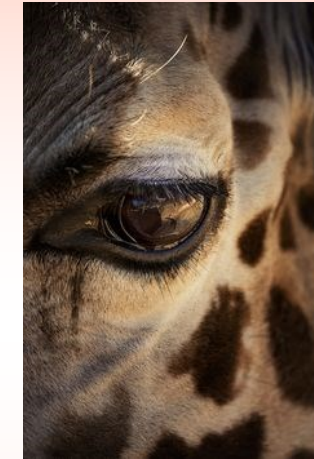
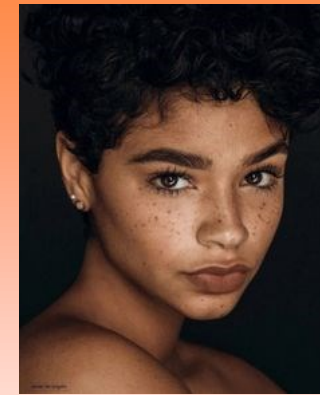


SALONNE

2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

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To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

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Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



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- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
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Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallopers into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murde 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Bigbant inflowers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

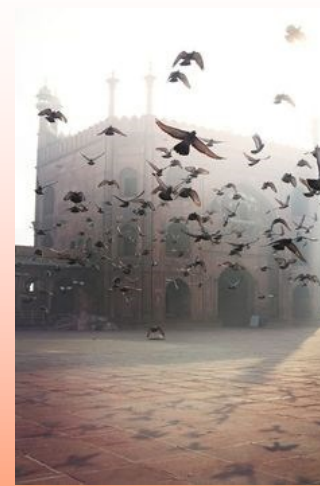
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

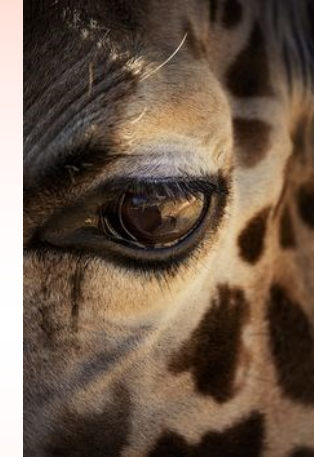
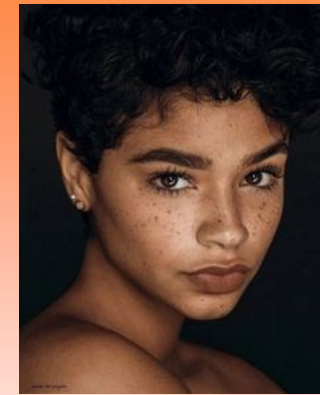


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
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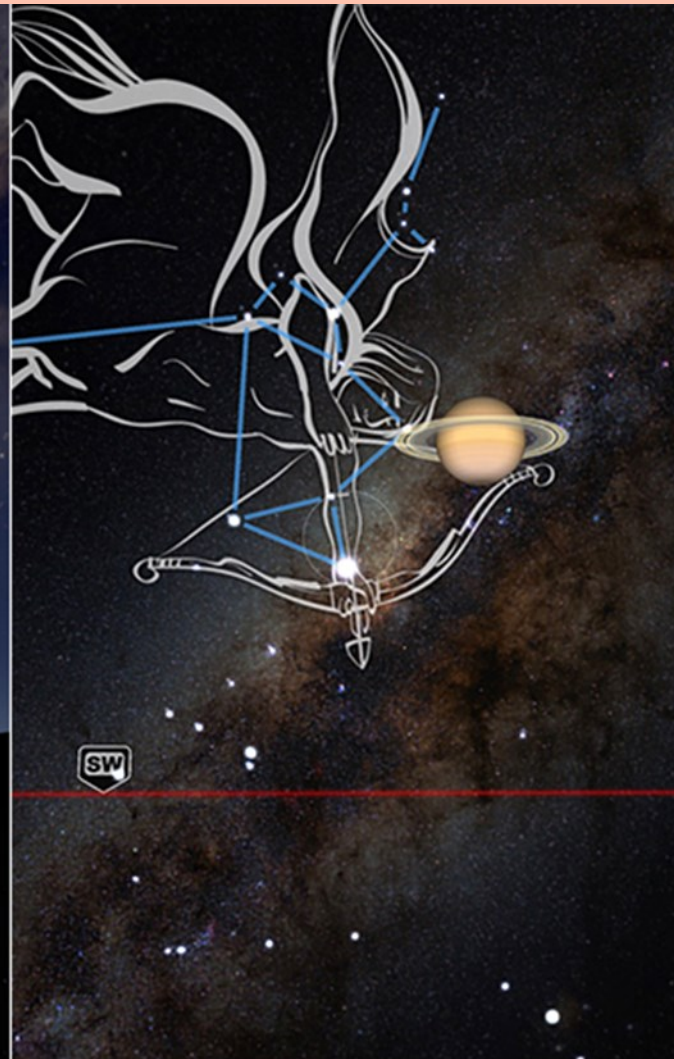


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

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Other settings that you need to take care of are:

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- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
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NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



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PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
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Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
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	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
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	Klerksdorp Fotografie Klub	Gallopers into the light	Karen Coetzee	
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 Judy Peter
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 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

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A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

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A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

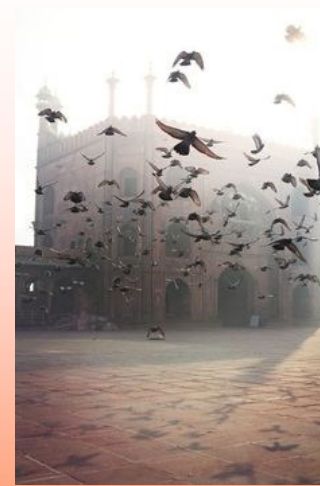
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

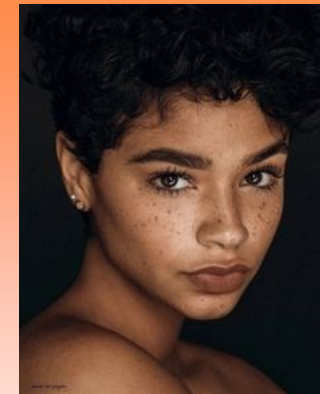


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**



Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF

BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



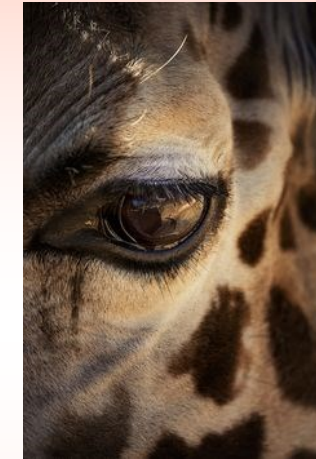
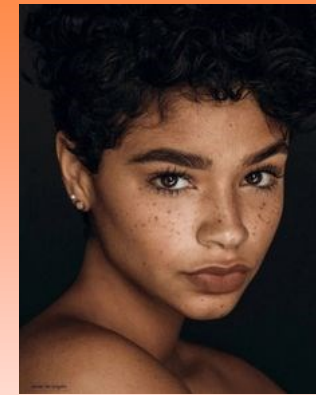
Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



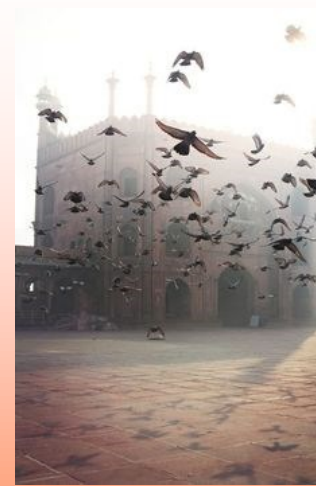
Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**



KLUB VERGADERINGS 2023

Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vër gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF

BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Wenner van Augustus se selfoofoto - Tema - Vic the Viking - Peter Thomas

Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Aksee op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallop into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murle 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Eligant leftovers	Simon Fensch	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fensch	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baar	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

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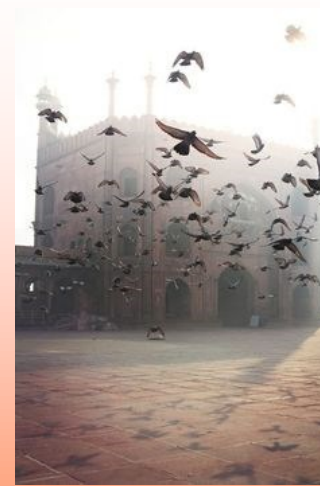
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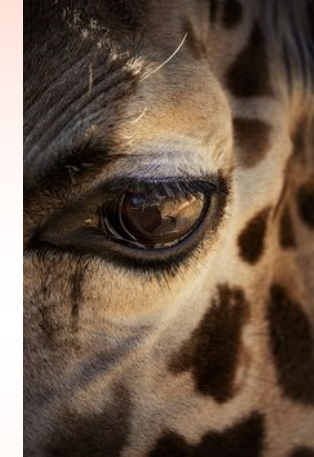
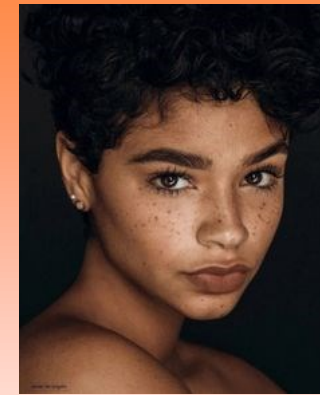


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KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
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Photo by [John Lemieux](#) on Flickr



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Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



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When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

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Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Aksee op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallopang into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murde 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Eligphant leftovers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

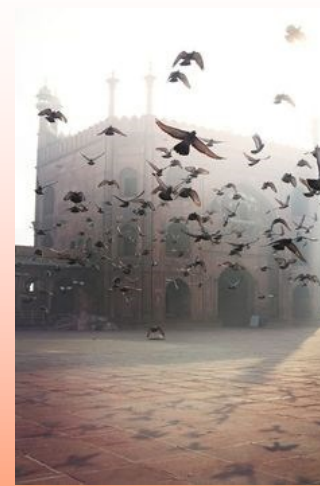
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

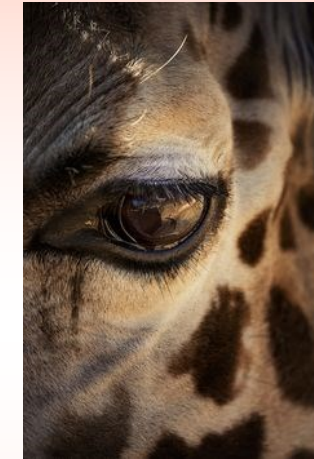
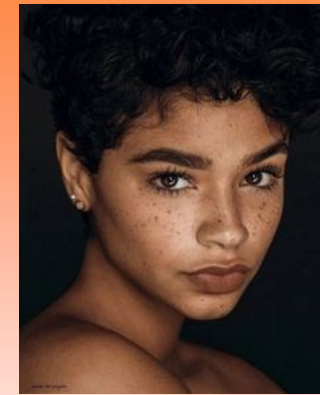


SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vër gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

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Photo by [European Southern Observatory](#) on Flickr



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To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

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Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



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- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

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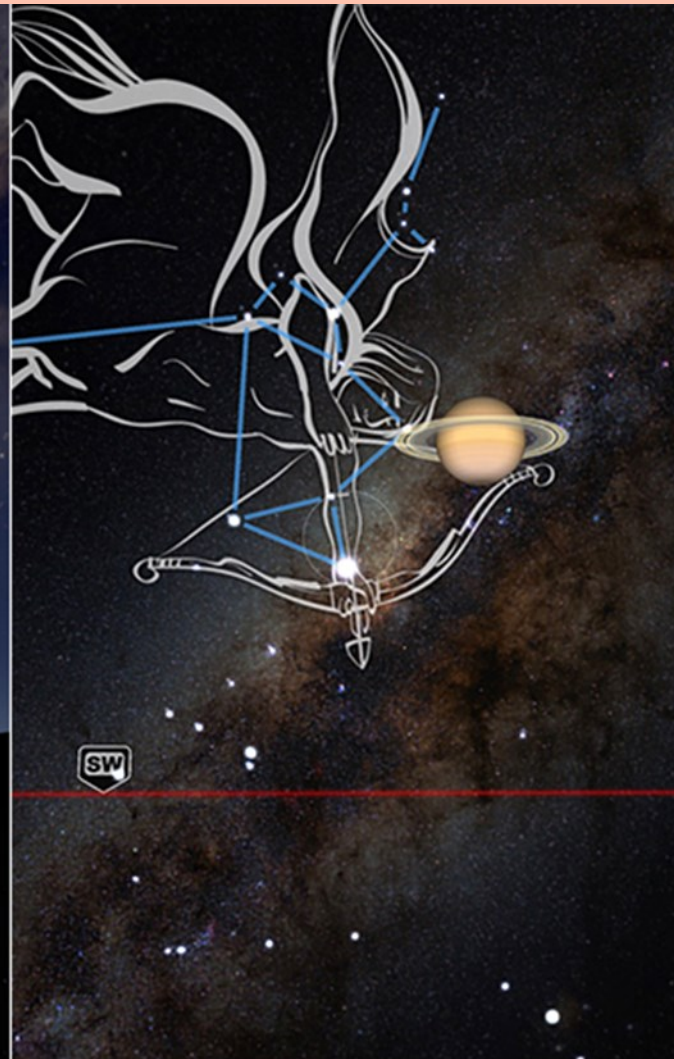


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

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Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
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- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
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NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



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Fotograaf - Peter Thomas



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PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
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Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
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1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallopers into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Musie 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Eligant leftovers	Simon Fensch	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fensch	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baar	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby Riv side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

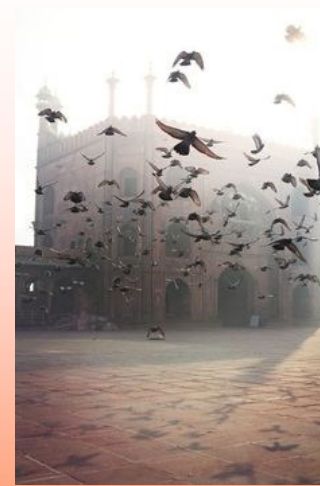
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

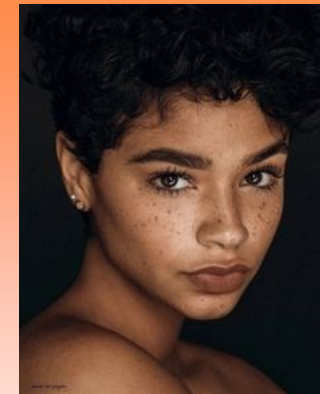


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
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- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



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- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
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	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
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	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
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Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

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Club points position

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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

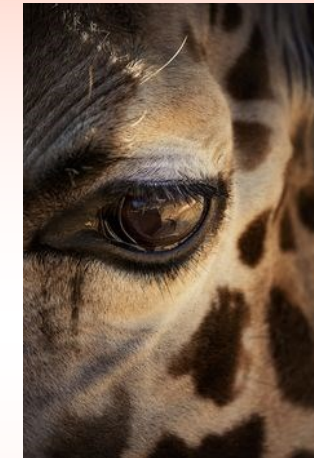
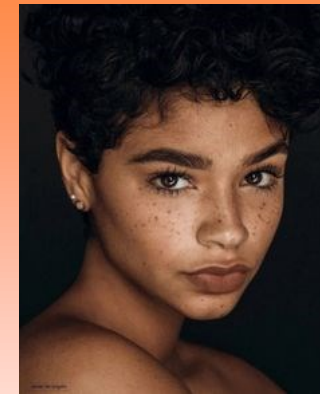


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



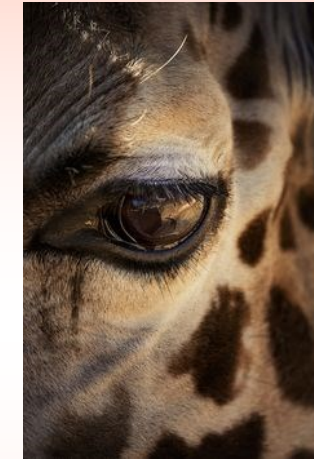
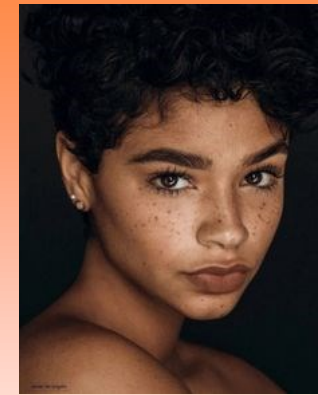
Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
- Oktober Straatfotografie
- November Voëls
- Desember 5 Bestes vir 2023



SALONNE

- 2023/09/09 MARITZBURG
- 2023/10/07 KRUGERSDORP
- 2023/10/14 PSSA UP AND COMING
- 2023/10/21 WESTVILLE
- 2023/10/28 SWARTLAND
- 2023/11/04 VFV NATIONAL
- 2023/11/11 AMBER



Selfoon Temas 2023

- September Diere
- Oktober Silhoueët
- November Simmetrie



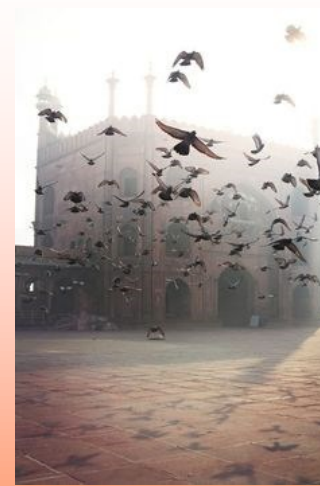
Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**



KLUB VERGADERINGS 2023

Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF

BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallopers into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murle 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Eligant leftovers	Simon Fensch	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fensch	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Alou	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Alby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

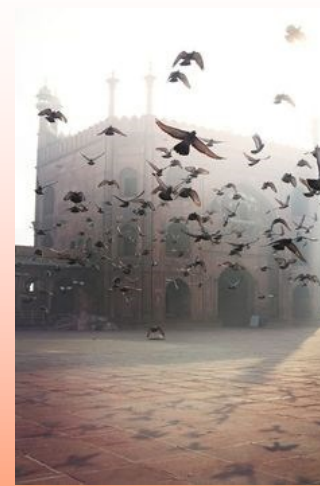
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Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

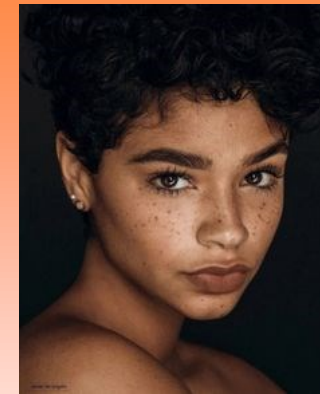


SALONNE

- 2023/09/09 MARITZBURG
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KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

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November Simmetrie



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Photo by [John Lemieux](#) on Flickr



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When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
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- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2

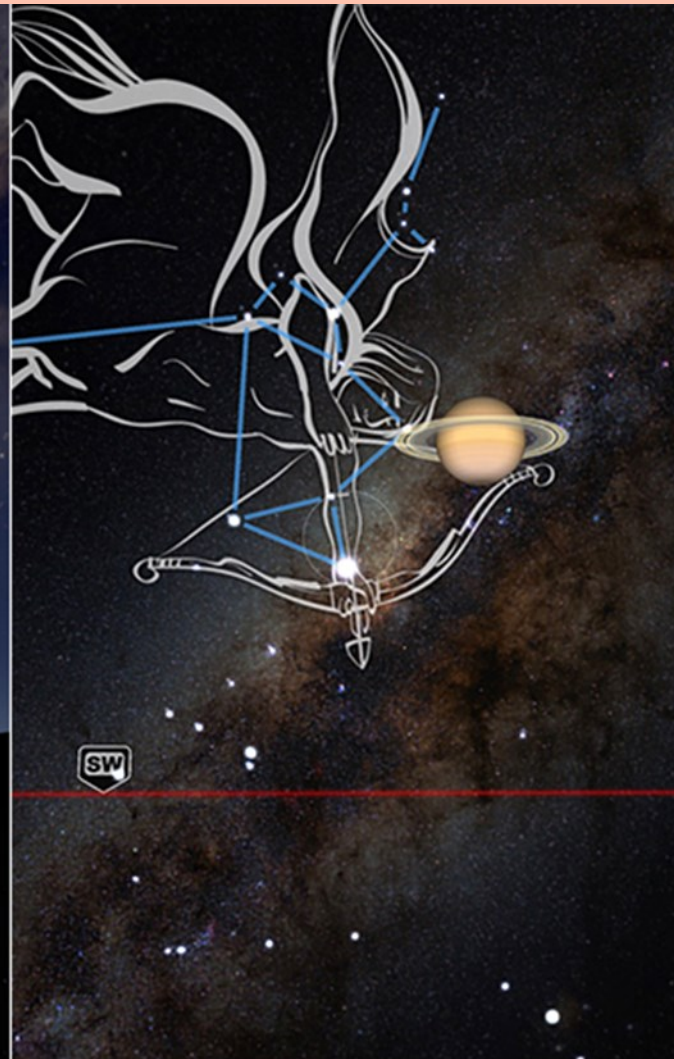


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia	Liren
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
	Alberton Camera Club	Nyala Graffes	Wina	Helberg
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard	Potgieter
	Brandpunt Kameraklub	Dary Albert	Gerhard	Potgieter
	Brandpunt Kameraklub	On top of the world	Gerhard	Potgieter
	Klerksdorp Fotografie Klub	Aksie op die strand	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Komras in die duine	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Gallopers into the light	Karen	Coetzee
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen	Coetzee
	Klerksdorp Fotografie Klub	Murde 1	Karen	Coetzee
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam	Fabritson
	Southern Suburbs Camera Club	Slow down	Jacques	Lourens
	Vereeniging Photographic Society	The joy within	Andrea	Harvard
	Vereeniging Photographic Society	The gift you see	Andrea	Harvard
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia	Liren
	Alberton Camera Club	Heat	Carolann	Beise
	Alberton Camera Club	Oors	Ben	Beiba
	Southern Suburbs Camera Club	Bigbant inflowers	Simon	Fischer
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon	Fischer
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin	Flower
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan	Brits
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	cheedah baal	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis	Alou
	Vereeniging Photographic Society	The mating ritual	Dries	Fourie
	Vereeniging Photographic Society	Proud Dad and Mom	Dries	Fourie
	Vereeniging Photographic Society	Mystery woman 1	Francis	Oosthuysen
	Vereeniging Photographic Society	Alby RV side light	Francis	Oosthuysen
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis	van Jaarsveld
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa	Scheepers
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

- Diane Nick
- Judy Peter
- Karin Tino
- Melanie Trevor
- Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

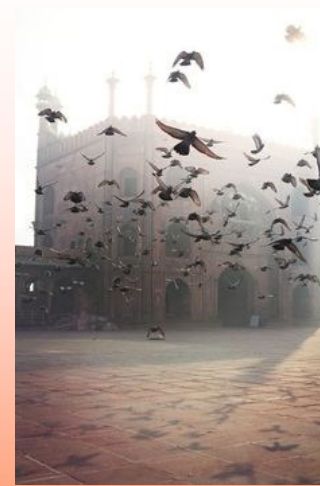
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

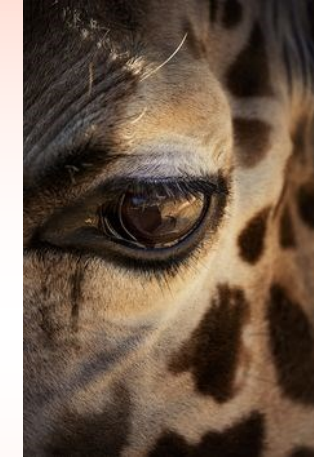
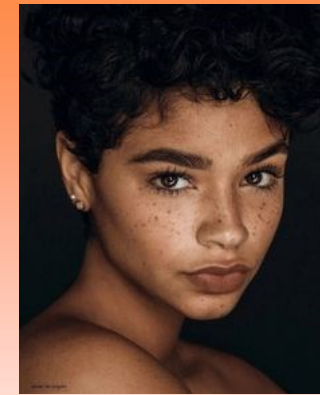


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

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Photo by [European Southern Observatory](#) on Flickr



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Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



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Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
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Peter Thomas is 2de in die AV kategorie

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PSSA Suid - Gauteng Kongres 2023

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	Vereeniging Photographic Society	The joy within	Andrea Harward	
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	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Bigbant inflowers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby Riv side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

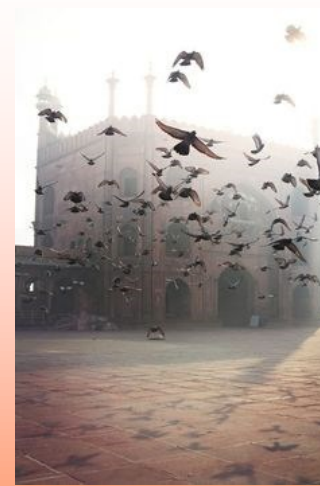
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

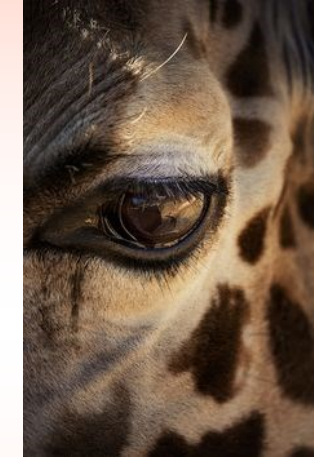
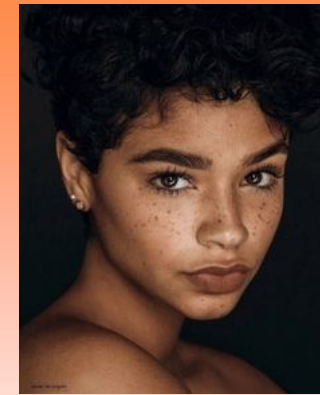


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vër gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

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	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
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	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
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Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
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Club points position

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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

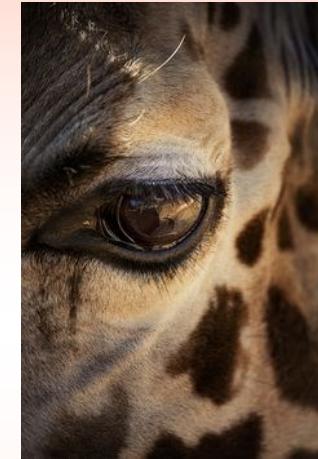
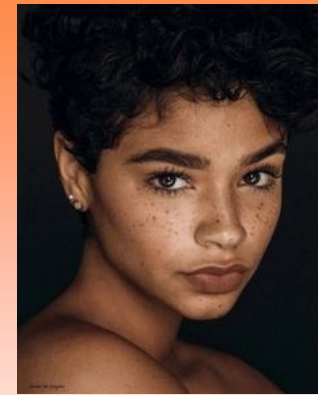


SALONNE

2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
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	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn neem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallopers into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murle 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
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 Michael Sarie, al die pad van Bloemfontein af.

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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

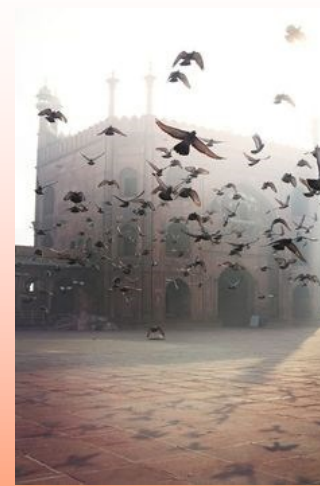
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

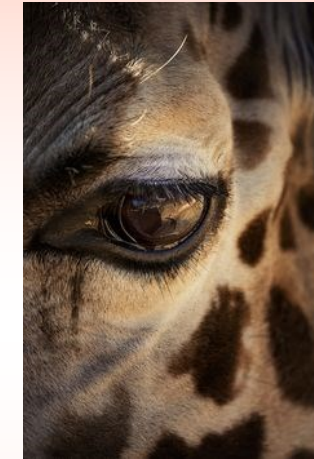
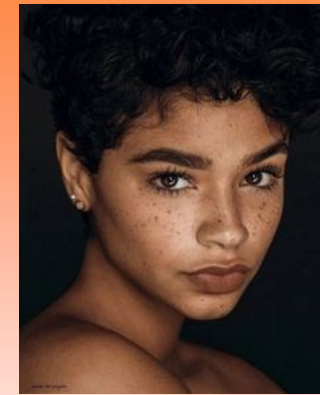


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2

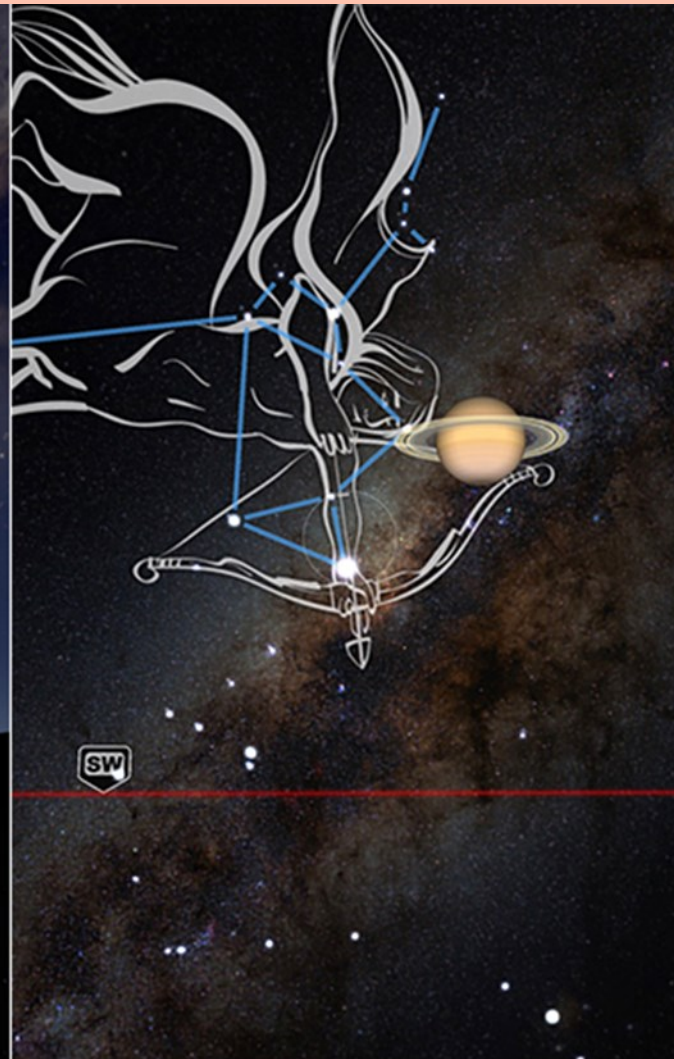


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallop into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Musie 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Bigbaited leftovers	Simon Fenschner	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fenschner	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baai	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Alou	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

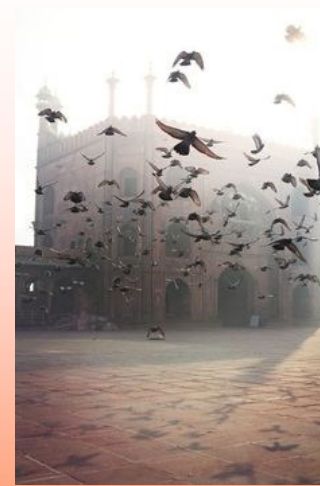
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

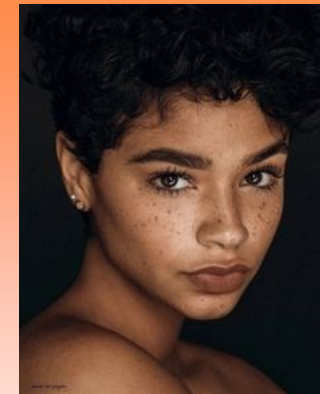


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**



Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



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Photo by [John Lemieux](#) on Flickr



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Photo by [European Southern Observatory](#) on Flickr



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Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
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- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



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Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

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If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF **BRANDPUNT**

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia Liren	
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques Lourens	
	Alberton Camera Club	Nyala Graffes	Wina Helberg	
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard Potgieter	
	Brandpunt Kameraklub	Dary Albert	Gerhard Potgieter	
	Brandpunt Kameraklub	On top of the world	Gerhard Potgieter	
	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Komras in die duine	Linda Bronkhorst	
	Klerksdorp Fotografie Klub	Gallopers into the light	Karen Coetzee	
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen Coetzee	
	Klerksdorp Fotografie Klub	Murde 1	Karen Coetzee	
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Steen Fabritson	
	Southern Suburbs Camera Club	Slow down	Jacques Lourens	
	Vereeniging Photographic Society	The joy within	Andrea Harward	
	Vereeniging Photographic Society	The gift you see	Andrea Harward	
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia Liren	
	Alberton Camera Club	Heat	Carolann Beise	
	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Eligant leftovers	Simon Fensch	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fensch	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baar	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Roux	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Abby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

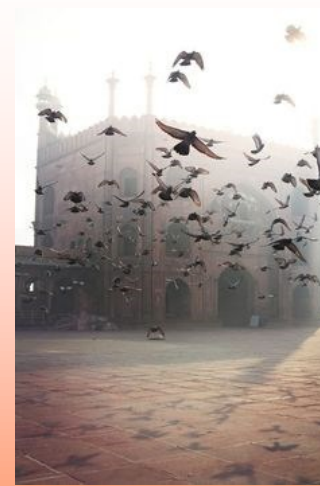
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

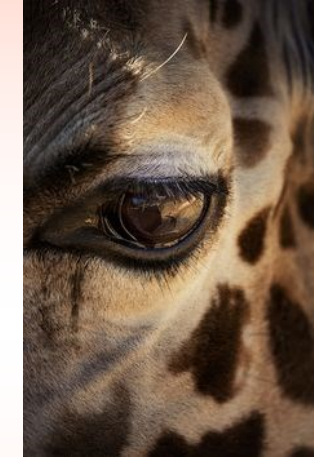
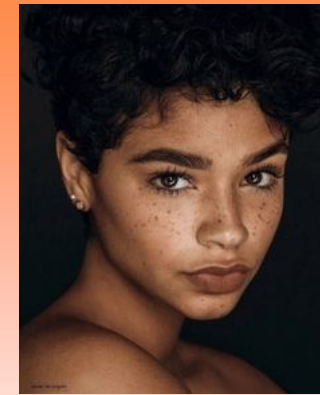


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vêr gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [Bala Sivakumar](#) on Flickr



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Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

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[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
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Gerhard Potgieter	3	514		Nie op Lys?	8	
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Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
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	Klerksdorp Fotografie Klub	Akies op die strand	Linda Bronkhorst	
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	Alberton Camera Club	Oors	Ben Botha	
	Southern Suburbs Camera Club	Eligant leftovers	Simon Fensch	
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon Fensch	
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin Fowler	
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan Brits	
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	cheedah baar	Johan Joubert	
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis Alou	
	Vereeniging Photographic Society	The mating ritual	Dries Fourie	
	Vereeniging Photographic Society	Proud Dad and Mom	Dries Fourie	
	Vereeniging Photographic Society	Mystery woman 1	Francis Oosthuysen	
	Vereeniging Photographic Society	Alby RV side light	Francis Oosthuysen	
7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis van Jaarsveld	
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa Scheepers	
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
Alberton Camera Club	491	1464	101	30	2086
Brandpunt Kameraklub	481	1413	92	28	2014
Heigel Fotoklub	462	1013	72	0	1547
Klerksdorp Fotografiese Klub	1079	816	73	0	1968
Lichtenburg Fotografiese Klub	409	359	66	0	834
Southern Suburbs Camera Club	492	1479	101	24	2096
Vanderbijlparkse Fotografiese Vereniging	477	1498	103	30	2108
Vereeniging Photographic Society	547	1373	93	29	2042

Club points position

Club	Total points	Position
Vanderbijlparkse Fotografiese Vereniging	2108	1
Southern Suburbs Camera Club	2096	2
Alberton Camera Club	2086	3
Vereeniging Photographic Society	2071	4
Brandpunt Kameraklub	2014	5
Klerksdorp Fotografiese Klub	1968	6
Heigel Fotoklub	1891	7
Lichtenburg Fotografiese Klub	834	8

Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

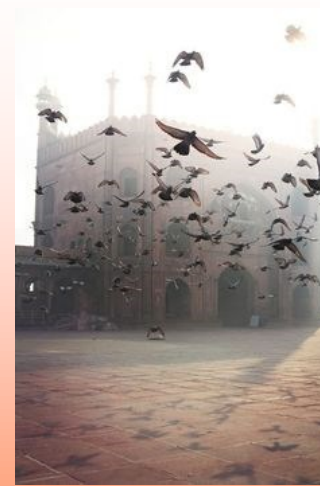
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

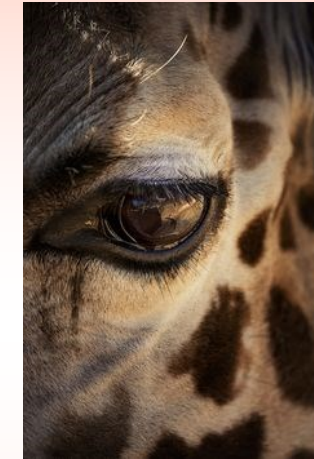
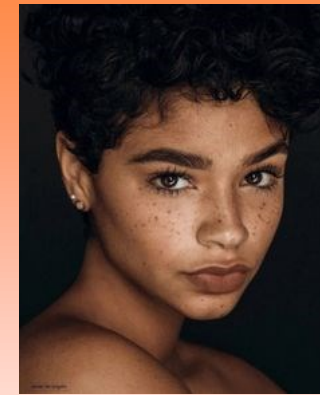


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vër gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at f/1.4, stopping down to f/2 will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
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Wenner van Augustus se selfoofoto - Tema - Vic the Viking - Peter Thomas

Fotograaf - Peter Thomas



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	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	cheedah baal	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	sent on the ghaf	Francis	Alou
	Vereeniging Photographic Society	The mating ritual	Dries	Fourie
	Vereeniging Photographic Society	Proud Dad and Mom	Dries	Fourie
	Vereeniging Photographic Society	Mystery woman 1	Francis	Oosthuysen
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7. Mini Series Winner - Certificate	Heigel Fotoklub	Drakensberg	Francis	van Jaarsveld
8. AV - Floating trophy	Vanderbijlpark Fotografiese Vereniging	Fleunen	Louisa	Scheepers
9. Winning Club - Floating Trophy	Vanderbijlpark Fotografiese Vereniging			



Baie, baie dankie aan 'n hele 10 lede van Brandpunt wat die Suid Gauteng Kongres bygewoon het.

Diane Nick
 Judy Peter
 Karin Tino
 Melandie Trevor
 Michael Sarie, al die pad van Bloemfontein af.

Veels geluk aan Gerhard met sy weghardloop oorwinning met die 3 sertifikate wat hy verower het.

Total Club Points

A total of 60 images may be entered. Entries are limited to a maximum of 8 per photographer. At least 15 of the entries must be from junior workers (1* to 3*)

Mini Series x 3. (4-6 pictures/series)

A separate award to be allocated for the Best Audio-Visual. (5 minutes max/entry/club)

Scores out of 15 given by each judge (x3=45) will be accumulated

Scores of the 3 mini series (out of 15 each) and 1 AV (out of 45) must be included in the total score to determine the winning club

	Junior Workers 60 pictures (scores out of 45)	Senior Workers (scores out of 15)	Mini Series (scores out of 15)	AV (score out of 100 works back to 45 points)	Total points
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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

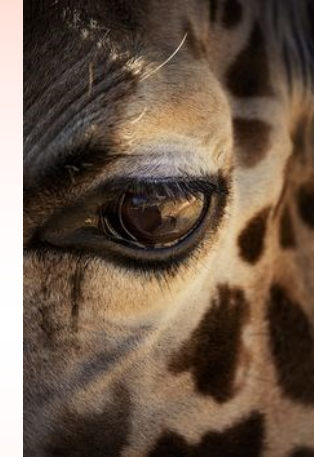
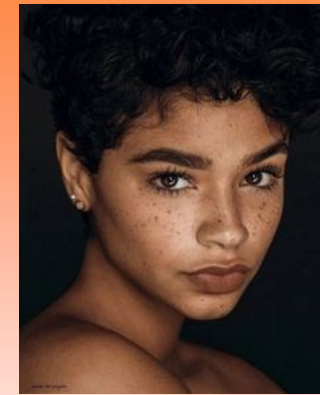


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
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2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
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KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



Veels geluk aan Gerhard Potgieter met sy bevordering na 'n 4 ster status. Wel gedaan.

Die fotograaf hier is Gerhard. Dit verg harde werk en deursettingsvermoë om te klim in status. Gerhard het in 'n kort tydjie baie vër gevorder. Gerhard is 'n langafstand lid en baie getrou in sy deelname aan die klubinskrywings. Sy fotos getuig van geduld en hy streef na perfeksie. Hy is 'n begaafde fotograaf en hy hou van 'n verskeidenheid genres, maar hy het 'n voorkeur vir die natuur se skoonheid. Dis lekker vir ons om iemand van Gerhard Potgieter se kaliber in ons klub te kan hê. Gerhard het 3 sertifikate verower vir sy werk by die 2023 Suid Gauteng Kongres.



Here's how to photograph the Milky Way

Find a dark sky

Know when and where to look.

Use a digital full frame camera with high ISO capabilities.

Use a fast wide-angle lens and choose the right focal length.

Use a tripod.

Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2

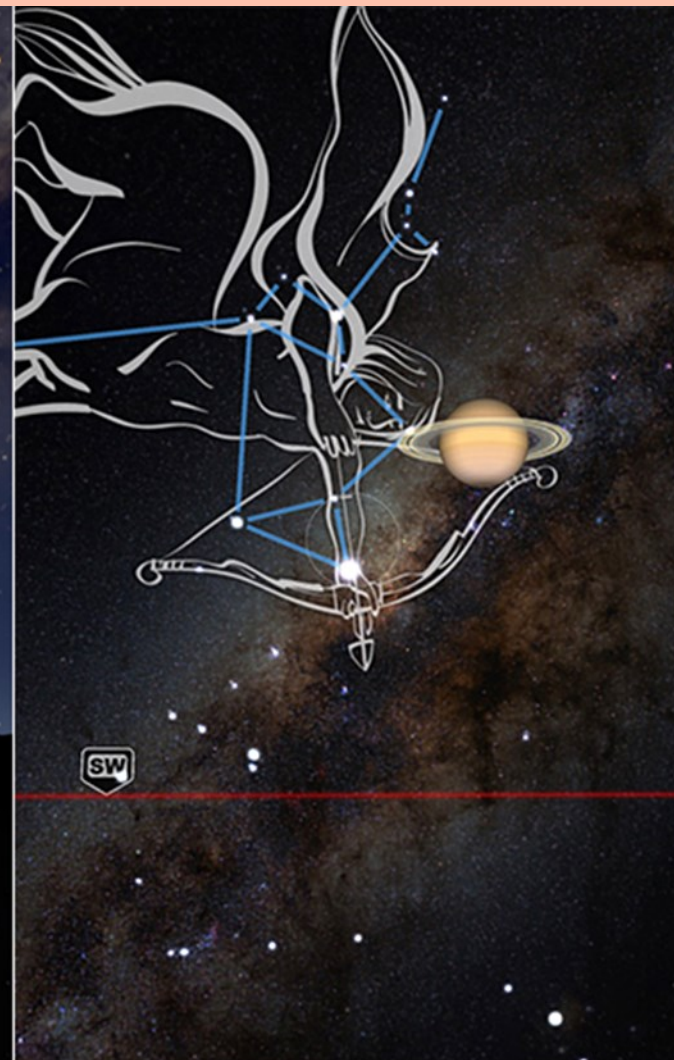


Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.



NUUSBRIEF BRANDPUNT

Uitgawe 34 - SEPTEMBER 2023



Fotograaf -
Elsa E van
Dyk

Fotograaf - Michael Feistel



Wenner van Augustus se kamera foto - Senior Tema - Kreatief met eetgerei - Gorrel Oetertang - Michael Feistel

Fotograaf - Sarie du Plessis



Wenner van Augustus se kamera foto - Junior Ope - Strooptyd in die skermeraand - Sarie du Plessis





Fotograaf - Peter Thomas



Wenner van Augustus se selfoofoto - Tema - Aksie - Drift waaghals - Peter Thomas



PSSA IMPALA LYS VIR DIE JAAR 2023 - Vol Jaar - Finale PSSA posisies < 600						
Naam	Ster Gradering	Vorige Posisie	Huidige Posisie	Beweging in Posisie	PSSA Punte	Finale Offisiele Posisie
Peter Thomas	10 Groot Meester Brons	37	32	5	171	26
Melandie Kleinhans	5	41	40	1	157	33
Nick van der Mescht	5	78	77	1	91	60
Diane Goncalves	6	108	121	-13	62	86
Elsa van Dyk	10 Groot Meester Brons	141	159	-18	44	100
Albertino Goncalves	6 Meester Brons	437	393	44	11	137
Michael Feistel	7 Meester Silver	527	436	91	8	140
Karin van der Mescht	5	841	543	298	2	146
Gerhard Potgieter	3	514		Nie op Lys?	8	
Johan Potgieter	4	955		Nie op Lys?	1	
Marinda van Heerden	4	355	355	Nie op Lys?	15	

Peter Thomas is 2de in die AV kategorie

Ingeskryf onder Southern Suburbs						
Judy Joubert	5		135	0	56	92

Saamgestel deur Nick van der Mescht

PSSA Suid - Gauteng Kongres 2023

Southern Gauteng Region Results - Sept '23- Awards:				
The following acknowledgements are to be done at the end of the event:				
	Club	Photo	Photographer / Author	
1. Best Jnr Photo - PSSA Bronze Medal	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
2. Best Snr Photo - PSSA Bronze Medal	Alberton Camera Club	African lady (b)	Cynthia	Liren
3. Winning Club Jnr Section - Certificate	Klerksdorp Fotografiese Klub			
4. 15 Top Jnr Pictures - Certificate for each	Southern Suburbs Camera Club	Angelic eyes	Jacques	Lourens
	Alberton Camera Club	Nyala Graffes	Wina	Helberg
	Brandpunt Kameraklub	Die wondryn heem terug	Gerhard	Potgieter
	Brandpunt Kameraklub	Dary Albert	Gerhard	Potgieter
	Brandpunt Kameraklub	On top of the world	Gerhard	Potgieter
	Klerksdorp Fotografie Klub	Akies op die strand	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Komras in die duine	Linda	Bronkhorst
	Klerksdorp Fotografie Klub	Gallop into the light	Karen	Coetzee
	Klerksdorp Fotografie Klub	Railroad to dreefontein	Karen	Coetzee
	Klerksdorp Fotografie Klub	Murle 1	Karen	Coetzee
	Southern Suburbs Camera Club	Coming in from the cold Russian Princess	Stam	Fabritson
	Southern Suburbs Camera Club	Slow down	Jacques	Lourens
	Vereeniging Photographic Society	The joy within	Andrea	Harvard
	Vereeniging Photographic Society	The gift you see	Andrea	Harvard
	5. Winning Club Snr Section - Certificate	Vanderbijlpark Fotografiese Vereniging		
6. 15 Top Senior Pictures - Certificate for each image	Alberton Camera Club	African lady (b)	Cynthia	Liren
	Alberton Camera Club	Heat	Carolann	Beise
	Alberton Camera Club	Oors	Ben	Beiba
	Southern Suburbs Camera Club	Bigbaited leftovers	Simon	Fischer
	Southern Suburbs Camera Club	Farmhouse on Hill	Simon	Fischer
	Southern Suburbs Camera Club	Lady sitting on pavement	Kevin	Flower
	Vanderbijlpark Fotografiese Vereniging	catch your own fish	Johan	Brits
	Vanderbijlpark Fotografiese Vereniging	backlit hana	Johan	Joubert
	Vanderbijlpark Fotografiese Vereniging	jaarte oopgee	Johan	Joubert
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Verjaarsdaglys vir September 2023

Sarie du Plessis 5 September



Klubaand Kamera Fototemas

- September Fotos wat 'n storie vertel
Oktober Straatfotografie
November Voëls
Desember 5 Bestes vir 2023



Kamerafotos 4

12 SEPTEMBER op ZOOM - 19H00 -

TEMA - Foto wat 'n storie vertel

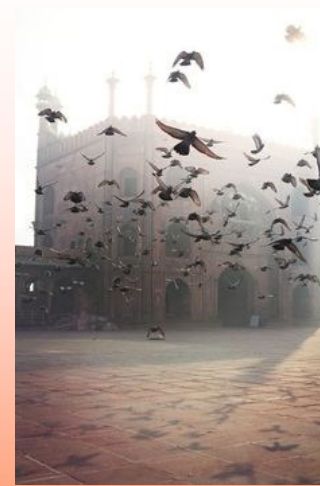
+ 3 KAMERAFOTOS (ope)

Naskrif.....**SLUITINGSDATUM 10 SEP 23h59!!!!!!**

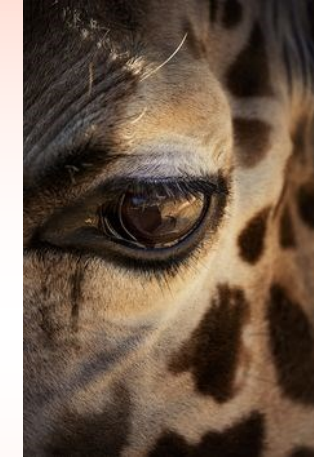
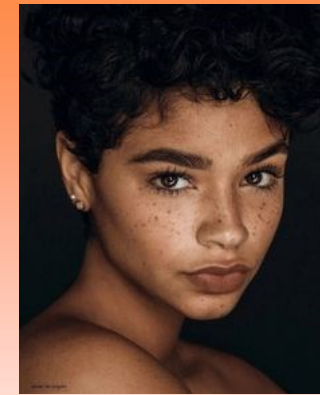


SALONNE

- 2023/09/09 MARITZBURG
2023/10/07 KRUGERSDORP
2023/10/14 PSSA UP AND COMING
2023/10/21 WESTVILLE
2023/10/28 SWARTLAND
2023/11/04 VFV NATIONAL
2023/11/11 AMBER



KLUB VERGADERINGS 2023



Selfoonfotos 3

26 SEPTEMBER op ZOOM - 19H00 -

TEMA - Diere

+ 2 SELFOONFOTOS (ope)

Naskrif..... **SLUITINGSDATUM 24 SEP 23h59!!!!!!**

Selfoon Temas 2023

- September Diere
Oktober Silhoueët
November Simmetrie



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Use live view to focus manually.

Start with ISO 3200.

Set a long shutter speed.

Set a wide-open aperture to get as much light as possible.

Compose your shot.

Get a satisfactory exposure for the best image quality.

Post-process the shot.



1. Find A Dark Sky

Just waiting until night time won't do. A dark sky free of light pollution is the first and most important requirement to even seeing the Milky Way, let alone photograph it. If you live in a big city, it can be difficult to see the Milky Way because of light pollution and poor air quality. Be prepared to travel a considerable distance (*several miles / hours depending on how large the city is*), otherwise, you run the risk of city lights making their mark in your shots.



Remote locations like national park areas, forest areas and other camping sites can be great for dark skies. You can make use of the [Dark Site Finder](#) website or [Light Pollution Map](#) or apps like [Dark Sky Map](#) to find dark areas near where you are.

The moon can have a similar impact on your Milky Way photos; shooting during a full moon will wash out your images. Try to shoot during a new moon or on days when the moon rises really late.

2. Know When And Where To Look

The part of the Milky Way that is most easily visible to the naked eye isn't visible all year round, especially for those in the Northern Hemisphere, where February through October is the optimal time, but the best months will be between May and August when the Milky way is high up in the sky. You will find your celestial subject in the southern half of the sky, rising from the east. Residents in the Southern Hemisphere may have a slight advantage in this regard, as the galactic center (*central parts* in other seasons, the core of the Milky way will not be visible, but you can still photograph the fainter parts of the Milky Way if you have clear sky and atmospheric conditions.

If you are unsure of where and how to locate the Milky Way in the night sky, we have discussed a few apps later in the article that will help with locating any object in the night sky including the rising and setting time and also for planning a shot of the night sky against a foreground using augmented reality features.



Photo by [John Lemieux](#) on Flickr



3. Use A Digital Camera With Good High ISO Capabilities

Camera settings matter a lot! You'll be shooting at night with very little available light; you want your camera's sensor to be able to handle the shooting conditions without introducing an excessive amount of noise. Full-frame cameras are preferable but certainly not a necessity. Recent cameras perform very well in low light and there are a lot of affordable ones to choose from if you are a beginner.

4. Use A Fast Lens

You should work with a lens with a maximum aperture of at least $f/2.8$; the faster the better. It's not that you're totally out of luck if your fastest lens is $f/3.5$ or so, but you'll have more of a challenge on your hands since the lens won't be able to gather as much light and you will need to increase the iso.

The same principle applies to focal length; go as wide as you can preferably in the 14 – 24mm range. You may be seeing only a fraction of the Milky Way, but it's still monstrous in size. The wider your lens, the more of it you can capture. Zoom lenses like the 15-35mm $f/2.8$ or fast lenses like the 14mm $f/2.8$, 20mm $f/1.4$ or 24mm $f/1.4$ are good choices.

Always experiment with focal length – there is no one right solution! Also, it's good if you can use a full-frame camera for this type of photography.

5. Use A Tripod

This really isn't optional. Bells and whistles are nice, but sturdiness is your number one concern. You will be shooting long exposures of about 15 seconds and longer, so a sturdy tripod that can hold the camera-lens system without any shake, even in slightly windy conditions, is a must for great images of the Milky Way. A remote shutter release or a cable release will help with further minimizing camera shake.



6. Use Live View And Focus Manually

When doing night photography, to avoid the headache of trying to focus in the dark, use your camera's live view feature to zoom in and manually focus on a bright star. Alternatively, you could use the distance markings on your lens (if it has them) to set hyperfocal distance.

7. Start With ISO 3200

Referring back to the first point, a high ISO is essential to collecting enough light to render a bright image of the Milky Way. Under typical conditions, ISO 3200 is a good starting place. Based on how well this plays with other camera settings, you can go higher or lower from there. Sometimes depending on the camera lens combination and atmospheric conditions, you may have to go up to iso 6400 and on a camera with better performance, even a lower iso 1600 may give an overexposed shot.

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Photo by [European Southern Observatory](#) on Flickr



10. Set A Long Shutter Speed

Shutter speed is one of the crucial camera settings in astrophotography. You need a longer exposure time for Milky Way images and this is how you will capture more light and create a sufficiently bright exposure. There is just one problem, though. The planet doesn't care if you're new at astrophotography; it's going to keep on rotating, which means if you leave the shutter open for too long, you'll end up with [star trails](#). There's nothing wrong with star trails when that's what you're aiming for, but they aren't really desirable for photographing the Milky Way.

To get pinpoint stars, use the "500 rule", which calls for you to divide 500 by the focal length of the lens you're using. So, if you have a 24mm lens on a full-frame camera, you will set your shutter speed to 20 sec. ($500/24 = 20.83$). If you're working with a crop sensor camera be sure to account for the crop factor (typically 1.5 for Nikon and Sony, 1.6 for Canon).

As an example, using the same 24mm lens on a Nikon crop, you'd end up with an effective focal length of 36mm ($24 \times 1.5 = 36$). Applying the 500 rule will yield a shutter speed of 13 sec. ($500/36 = 13.89$). There are those who debate about whether to use the 500 rule or the similar 600 rule; without delving further into the mathematics of it all, it really is more a matter of visual perception.

In short, stick with the 500 rule, especially if you intend to [make poster size prints](#). If, after you've gotten more comfortable and done some experimenting, you find the "600 rule" works better for you (should be fine for web images) then definitely go with that.

Recent cameras with their highly developed sensors may sometimes require a more advanced calculation for exposure time called the NPF rule. Photopills app allows you to make this calculation easier.



Photo by [Ahmed Rizkhaan](#)



11. Set A Wide Open Aperture

No camera settings are complete without the right choice of aperture! Remember, it's all about collecting as much light as possible; depth of field isn't the primary concern here. In case of any significant softness, you'll want to stop your lens down. This is why it's so important to use a fast lens in the first place; if you know your lens is unacceptably soft at $f/1.4$, stopping down to $f/2$ will sharpen things up without having a severe impact on the lens' light gathering ability.

12. Compose Your Shot

Once you are confident about all the camera settings it's time to press the shutter button. There's no right way or wrong way to compose your shot, but you can create a sense of depth by framing this as a standard landscape shot with the Milky Way serving as the background. Just because it's dark out doesn't mean you should forget about the foreground, though; you can add interest to your scene by including hills or mountains, trees, rock formations, or even a person. Experiment all you want.

13. Get A Satisfactory Exposure

It's very likely that your first shot won't be an exposure you're satisfied with (if you're not happy with the focus or composition, adjust those camera settings before moving on to worrying about exposure). If the exposure isn't "right," you'll have to identify the problem and work from there. When you notice there's too much noise, simply decrease the ISO.

Finally, when you spot the shot is overexposed, check your surroundings for light pollution; decrease shutter speed; stop down the lens; or decrease ISO. If it's underexposed, make sure you're using the widest aperture on your lens; increase shutter speed (*but beware of star trails forming*); increase ISO.



Photo by [Bala Sivakumar](#) on Flickr



14. Post-Process the Image

There will be a lot of variation at this final stage and, again, there is no one right way to handle the post-processing of your shots. Here are some steps that you can follow:

- The two most important things you can do to make post-processing a little easier is to shoot raw.
- Get the best exposure you can in-camera.
- You may need to apply some sharpness and noise reduction.
- The color temperature of the Milky Way is around 4840°K; if you find it too much on the yellow/orange side .
- Adjust the white balance until you have a neutral scene.
- You will definitely need to increase contrast; it's okay to be a bit heavy-handed here, so long as you're not losing shadow detail.
- If the photo editing software you are using allows curve adjustments, make use of it, as you can be more precise with your work.
- The curves tool also allows you to bring out more details and colours in the image.
- Assuming you got a good in-camera exposure you shouldn't have to play with the exposure slider too much.
- Work with the colours in the frame. You can even make use of the HSL panel to work on specific colours.
- Use the adjustment brush tool to work in specific areas that need local adjustments. For example, bringing out details in foreground areas.

Sometimes you may have to remove plane or satellite trails in the image or even other unwanted objects. Make use of clone or spot removal tools in your post-processing software for these tasks.



15. Post Processing

Blending Images Exposed For Foreground and Sky: One way to get well-exposed foregrounds in a Milky Way shot is to take 2 shots and blend them when post-processing. One shot exposed for the sky and another for the foreground. Then blend them so you get the details in the foreground correctly exposed. Some photographers even blend images taken at different times of the day (foreground during twilight and then the sky exposure at night) in the same location.

Focus Stacking:

If you are looking for sharp details of all elements in the frame right from the foreground to the background, depending on how close the foreground elements are, you will need to go down the route of focus stacking.

Take multiple images by shifting the point of focus slightly starting from the foreground and then moving your way back till you get the focus sharp on the stars/Milky Way. Stack these images when post-processing.

How To Find The Milky Way

Before you learn how to photograph the Milky Way, you need to be able to find it. To locate the Milky Way, you need to be in a location free from light pollution due to the city lights, you need to have a clear sky. May to August is the best time to photograph the Milky Way. A very easy way to locate the Milky Way is to use an app that can accurately show you the location of the Milky Way at any time or tell you at what time the Milky Way rises and sets.

- The Sky Guide app for iOS gives an accurate location of the Milky Way and alerts you of astronomical events.

Try - [Sky View Lite](#) and Star Walk 2



Photo by [Damian Witkowski](#) on Flickr

Screenshot of the Apps used to locate the Milky Way



Sky Guide



Sky View Lite



Star Walk 2

Here are some more tips to photograph the Milky Way

Night Sky Photography Settings:

When photographing the night sky, there are a few rules to follow based on the camera that you use, to avoid star trails.

The most common one is the 500 Rule where you divide 500 by the focal length of the lens you are using and if you are using an APS-C sensor, take into account the crop factor.

The various rules used for calculating shutter speed for star trails are below:

[The 500 Rule](#)

[The 600 Rule](#)

[The NPF Rule](#)



Other settings that you need to take care of are:

- Have the camera in full manual mode on a sturdy tripod. Turn off image stabilization.
- Have a wide-angle lens between 14mm to 24mm to get a good view of the Milky Way in the frame along with the foreground. Of course, you can try to use a different focal length if you want to achieve a different effect.
- Always shoot in raw format.
- Set the aperture to the widest – at least f2.8, but if you have only the basic lens, use it at 18mm / f3.5.
- Start with the lowest ISO possible, about 1600. Depending on the result, you can decrease further or increase the ISO up to 3200, above which the image quality can start to deteriorate. Some older cameras or atmospheric conditions may require iso 6400.
- Put your lens on manual focus and focus on the brightest star in the sky. Zoom in on live-view and turn the focus ring till the star shows up as a bright point on the screen.
- Calculate shutter speed based on one of the rules above – 500 rule, 600 rule or the NPF rule.
- Use the mirror lockup feature if using a DSLR to avoid blur due to camera movement.
- Turn off long exposure noise reduction because an amount of time equal to the exposure time will be taken by the camera for this process which means the photographer will have to wait between each shot which will not be practical. You can reduce noise when post processing.