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# 7 TIPS TO GET THE MOST OUT OF YOUR TELEPHOTO LENS

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Quick Guide  
Written by Tobie Schalkwyk



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## INTRODUCTION


For the sake of those among us who use the simpler name for a 'telephoto lens,' we're talking about a zoom lens. This article is specifically directed at long-range zoom lenses as I believe that is where most challenges reside.

I believe that our challenges these days differ quite a bit from those owning these types of lenses a few years ago. We have it easier. The simple reason is that their improvements came in leaps and bounds, especially in the last couple of years as far as the non-brand lenses are concerned.

Imagine not too long ago (to name only one lens), the first 80-400 Nikkor lens was 'state of the art.'

Today we look back and appreciate the fact that we have image stabilizers in all of our long-reach lenses, as well as auto focusing at speeds we could previously only dream about. Today we can focus more on the 'other' factors and techniques in order to land a decent shot.

So, let's look at a few tips for getting the most out of your long-reach telephoto lens.

 **Recommended Reading:** If you'd like to master camera settings to create gorgeous, creamy, blurry backgrounds, grab a copy of Photzy's premium guide: [Beautiful Background Blur](#).



Photograph by Tobie Schalkwyk

*You have less than a second to catch this action which never lasts long | Nikon D600 + Tamron 160-600 G2 @ 280mm | f/8 | 1/800s | 500 ISO | I supported the camera on my car's door mirror.*

## ESTABLISH A SHOOTING SYSTEM

You may be doing this already without thinking about it. What do I mean by 'establishing a shooting system'? It's all about a combination of settings to start from before you lift your camera to take your first shot for the day. For example, when I leave home for a bird shoot, I set my camera at f/5.6 (the widest it can go), 1/800s, and 800 ISO. If my focus is going to be more on wildlife, I'll decrease my shutter speed by three clicks on the dial and do the same with ISO.


A few other important settings to check before leaving for a shoot are as follows:

- Exposure metering – Use spot metering for birds due to their small sizes, center-weighted for wildlife, and matrix (Canon: 'Evaluative') for landscapes.
- Continuous shooting mode for fast-moving subjects.
- Back-button focus for birds (more about this in a separate section lower down).


What is the purpose of a shooting system?

- You don't get caught with your pants down when you quickly have to take your first shot of the day (which may be the best subject you'll cross paths with for the whole day).
- It sets you kind of 'in the middle' of the settings you will revolve around all day long. If you get caught off-guard and have to quickly take a shot, you will be within the dynamic range where your photo editing tool will be able to do the needed adjustments to produce something decent (unless your shutter speed was too low of course).
- In the case of birds, your lens should always be extended to full reach. I have stopped counting how many times I have missed a great shot of a bird because of the second or two I needed to adjust my lens to the full, especially when it was on zoom lock (the feature that prevents the lens from auto extending/shrinking when you tilt it up or down).

For wildlife I do the opposite and start with the shortest reach. If you *have* to take a quick shot and get only one chance, the animal is large enough to be cropped closer in in post-processing.

 **Key Lesson:** An established shooting system is one of the most valuable (and underestimated) tools available to lower your chances of getting caught off-guard during a shoot. It also elevates the probability that you will be able to successfully rescue an image taken in a rush.

It is actually important enough to set up a checklist which you can tick off before leaving home for a shoot. Rather be safe than sorry!

 **Note:** Don't forget to adjust your settings in time as circumstances change during your shoot (e.g. it suddenly becomes cloudy/bright sunshine sets in etc.).



Photograph by Tobie Schalkwyk

*The early bird catches the worm | Nikon D600 + Tamron 160-600 G2  
@ 600mm | f/7.1 | 1/1000s | 800 ISO | Hand-held*

## GET CLOSE

This is probably one of the most misunderstood/overlooked points about using a long-range lens. One of the most valuable features of a telephoto lens is the ability to bring a distant subject closer. Those images would rarely be among the favorites in your collection, though. The favorites are usually those where you were really close to your subject and you zoomed in just enough to fill your frame, or even closer. Why is this?

By getting really close to the subject, the following happens:

- Your lens is able to expose every feature of your subject in perfect detail. You may even find yourself looking at a bird previously perceived as 'dull' with totally different eyes. Want to see every detail in a bird's eye or feathers? Get close!
- You manage to get the most fantastic bokeh (soft background) which serves to highlight your subject's features even more.
- You may be able to snap your subject without fully extending your lens. In general, zoom lenses are not at their sharpest when fully extended.

This unlocks other advantages. If you shorten your focal distance (reach), then you can bring down your shutter speed and still be within the limits of the reciprocal rule of photography. If you bring down your shutter speed, then you can bring down your ISO and keep the same level of light. Who wouldn't want to do that?

If you're not sure how close your subject will allow you to get to it, start taking your first shot from a distance. Then move closer cautiously and take another shot after every five or ten steps until it gets ready to move off or fly away.



**Key Lesson:** It is not always possible to get really close to your subject, but if you can and you don't do it, then you're settling for second best. Just do it!



*Back Button on the Nikon D600*

Photograph by Tobie Schalkwyk

## USE BACK BUTTON FOCUS

Back button focus is a gem to anyone shooting moving subjects or when you want to focus on a subject and then swivel your camera away from it without losing focus on it. It works as follows:

- **In a 'standard' camera setup,** your camera focuses on a subject when you have pressed your shutter release button halfway down. It then does not do any refocusing while taking the photo.
- **With back button focus,** your shutter release button does not do trigger focusing at all. That function is taken over by the back button on your camera. When you set your camera on continuous focusing mode at the same time (AF-C for Nikon and AI Servo AF for Canon), then the camera will keep on refocusing as long as you're pressing the back button.

This is important when capturing an image of a moving object. In the standard camera setup, an object may have moved a meter or two closer to you from the time the camera focuses until the time the shutter release button is fully pressed and released. The image would thus be blurred or will not be perfectly sharp.

With back button focus plus continuous focusing, the camera will keep on focusing on the subject as it moves toward/away from you, so by the moment the shutter release button is fully pressed down, the subject will still be in focus.

When you want to focus on a subject and then move the camera away slightly (perhaps to position your subject to the crossing point between your vertical and horizontal third lines), you push the back button with the focus point on your subject. You then release the back button (the camera won't refocus thereafter) and move your camera away until your subject is in the desired position in the frame. Then take your shot. Voila! You've done it!

I am not going to go into detail about how exactly to set your back button focus. The process is slightly different between brands and even between different

models inside the same brand. In my Nikon D600 it is done by setting the 'Assign AE-L/AF-L button' menu setting to 'ON.' I have learned to memorize the setting to be in position 'f4' in my camera's menu so that I can find it quickly and easily when needed.



**Key Lesson:** Back button focus is one of the most valuable tools in the toolbox of photographers shooting moving objects. You can achieve the same in the standard camera setup by just setting continuous focus and then holding your shutter release button *halfway* down, but it is easy to accidentally take the shot at the wrong moment.

When using back button focus in continuous shooting mode, the lens will keep on focusing on your subject as it moves closer to you and you take shot after shot, split-seconds apart – as long as your lens keeps on refocusing fast enough on your subject.



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## KNOW YOUR BUTTONS AND USE THEM CORRECTLY

We humans are lazy beings. The tendency is to mount your lens on the camera and everything should just 'work.' It probably would, too. But are you getting the most out of your lens? You're paying big bucks for it (there are hardly cheap lenses anymore), so why not use it to its fullest? Every button is there for a reason and for your own benefit, after all!

A few examples:

- Does it have a **zoom lock** feature? On my Tamron 150-600 G2 it's achieved by sliding the focal length ring a couple of millimeters to the front of the lens. This prevents you from accidentally adjusting the focal length, or from letting it auto adjust as you tilt the lens up or down. You can still adjust it if you really want to, but with a bit of resistance from the lens.

This lens also has a Lock button that allows you to totally lock the lens at 150mm. It's quite handy when carrying the lens during a long hike. If it auto extends without you knowing about it, you may easily bump it against surrounding rocks or other objects.

- Does it have **different image stabilization options** and, if so, do you understand them and use them as recommended?

Using my Tamron 150-600 G2 as an example yet again, I have three image stabilization options (VC Modes):

### **VC Mode 1: Standard mode**

This mode gives you a balance between stability of the image in the viewfinder and stabilization effects. You will see the image stabilizer at work in the viewfinder as you focus on your subject. Use this mode if you're not sure which mode is best.

### **VC Mode 2: Panning mode**

Use this mode for panning (e.g. photographing birds in flight/other moving subjects). It will allow faster auto focus.

### **VC Mode 3: The 'shoot now check later' mode**

VC mode 3 stabilizes images at the moment of capturing them. If you

look through the viewfinder it will look as if image stabilization is disabled. Meanwhile, it's working hard 'behind the scenes.'


Tamron claims the equivalent of 4.5 stops of compensation when using this mode. Use it when shooting at your lens' longest focal length (600mm in this case) or for shooting erratic action (as in sports or from a moving object).

- Does it have **focal length range limiter** options? My Tamron has three options:
  - 2.2m–10m – This allows you to quickly focus and refocus on subjects close by.
  - 10m to eternity – This prevents the lens from searching through its whole range when shooting far away subjects, thus speeding up the focusing process.
  - Full (basically 2.2m to eternity). Use this when you have no idea how far from you your next subject is going to be.



Photograph by Tobie Schalkwyk

These are only a few features that may be catered for by your lens. Maybe it's time to have a look again and rediscover some of its forgotten features?

 **Key Lesson:** Most lenses that are worth the money spent on them have special buttons to make your life easier. You can probably get most work done without ever making any adjustments, but hey, you have probably paid big bucks for it, so why not use it optimally?



Photograph by Tobie Schalkwyk

*Application of the reciprocal rule at a slow shutter speed | Nikon D7100 + Tamron 24-70 @ 44mm (35mm equivalent: 66mm) | f/13 | 1/60s | 100 ISO | Handheld*

## USE THE RECIPROCAL RULE OF PHOTOGRAPHY

I'm specifically mentioning this rule because you will most probably adjust the focal range of your telephoto lens on a regular basis. If you do not keep in mind the reciprocal rule of photography while shooting hand-held, then you open yourself up for huge disappointments at post-processing time. At the shortest focal range you can get away with murder (well, almost) as far as hand shake is concerned. The longer ranges are less forgiving though.

So, what is this rule about? It's actually quite simple. It says that if you want to compensate for hand shake, your shutter speed should be at least  $1/(\text{your lens' focal length})$ . In other words, let's say you shoot at 600mm, then your shutter speed should be 1/600s or faster. It's probably an overcompensation when image stabilization is taken into account, but I'd rather overcompensate than have regrets afterwards.

ⓘ **Important:** Keep in mind that the reciprocal rule is based on a 35mm equivalent (full-frame camera) focal length. When mounting your lens on a crop sensor camera, you are working on a 1.5x 35mm focal length (or 1.6x, depending on your camera brand). So, if you are shooting at 600mm, you are shooting at a 35mm equivalent focal length of 900mm/960mm. Your shutter speed should thus be at least 1/900s or 1/960s respectively.

💎 **Key Lesson:** The reciprocal rule has been developed as a safety measure to rule out hand shake. It has been proven and tested, so use it with confidence. Having said that, don't throw logic out the window. If you shoot from a tripod or other stable support, let your subject's speed of movement guide you into what shutter speed is appropriate. Usually 1/320s is fine for human or wildlife movement, but you obviously have to go faster for a motorbike or motor race, for example.



Photograph by Tobie Schalkwyk

*“Eternal Friendship” | Nikon D600 + Tamron 160-600 G2 @ 600mm | f/7.1 | 1/800s | 1000 ISO | Beanbag*

## DISABLE IMAGE STABILIZATION WHEN YOU DO NOT NEED IT

Why would you want to do this? Because it slows down your camera's auto focus speed.

When should you do this?

- When shooting from a tripod or other stable support
- When panning (e.g. shooting birds in flight/other fast-moving objects)

This is one of the simplest (but probably most neglected) ways to help your lens focus at its fastest.

## HOW TO SHOOT THE MOON

I know that this is one of the challenges that a lot of photographers are battling with (or at least wonder about), so I thought of including it as my last tip in this guide.

The most common mistake that first-time moon photographers make is to overexpose. The result is a white blob without any detail. The other problem is blur. One needs to keep in mind that a micromillimeter of camera shake when photographing an object 384,400 km (238,900 miles) from us is catastrophic. That micromillimeter has an increasing magnifying effect over distance and it ends up being a couple of meters by the time it reaches the moon.

The steps for successfully photographing the moon are as follows:

- Use a stable, sturdy tripod. Non-negotiable.
- Use a cable or other remote shutter release.

- Use mirror-up mode, if your camera has it. Wait two or three seconds after lifting the mirror. This will prevent camera shake as you release the shutter.
- Switch off image stabilization on your lens.
- Start with the settings f/11, 1/10s.
- Zoom out to about 66%-75% of your lens' maximum reach to increase sharpness.
- Set your ISO to your camera's lowest possible setting.
- Take your shot.
- Play around with 1/20s-1/30s and longer focal lengths.

I also use back button focus. If your camera has it, use it. The moon moves quite fast and if you do not use back button focus, your focus point may be missing the moon by the time you release the shutter. Your camera will search for something to focus on and you will end up with a blurred image.





Photograph by Tobie Schalkwyk


*Nikon D7100 + Tamron 150-600 G2 @ 600mm  
(35mm equivalent: 900mm) | f/11 | 1/15s | 100 ISO  
| Tripod | Mirror up | Remote shutter release*

## POST-PROCESSING

- Crop the moon closer on a 1:1 crop, but leave a bit of space on all four sides
- You may have to burn the brightest areas a little. Do it on a tone curve if you have it in your editing software in order not to adjust everything at the same time. Use luminosity masks if you have Photoshop.
- You might want to darken the darker areas even more (use a tone curve and/or luminosity masks).
- Sharpen the image but be careful of over sharpening.
- Play with color/black and white to see what looks best.

 **Note:** I like to shoot the moon when it's not full. If you get it right, you will have beautiful accentuation of its craters – much more interesting than a 'flat' full moon.

 **Key Lesson:** There are a few ways to skin a cat as far as moon photography is concerned - but not too many. Use my settings above as a starting point and play around with shutter speeds and other focal lengths not too far from my example. Focus on two things: stability and exposure.

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Photograph by Tobie Schalkwyk

*Who said a long-reach zoom lens cannot be used for capturing nature shots?  
Nikon D600 + Tamron 150-600 G2 @ 600mm | f/6.3 | 1/320s | 800 ISO | Tripod*



# Hey there!

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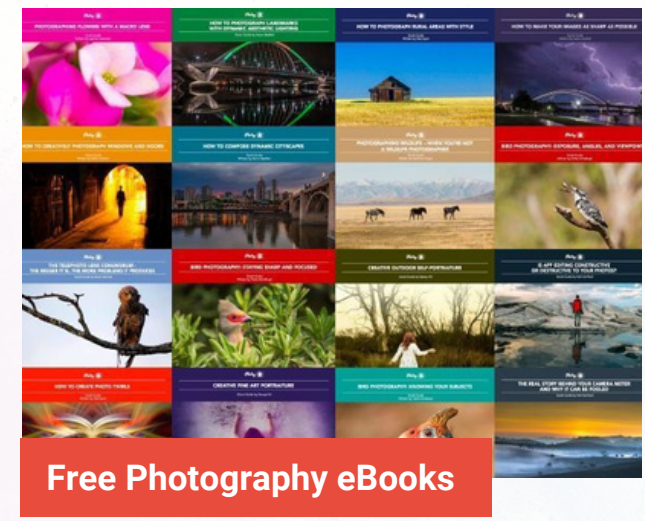
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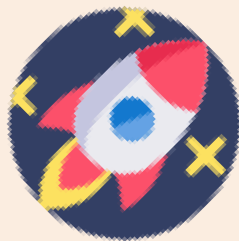
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## ABOUT THE AUTHOR



Tobie Schalkwyk is a retired Web Developer and Digital Marketer with a love for photography – but rather a passion and preference for bird photography.

Web sites related to photography:

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