Today's Exposure Modes I Find Most Useful

By John Gerlach



Figure 1 A female northern cardinal approaches to land. This required manual exposure and great (or lucky) timing on my part. I had to shoot the camera at the highest frame rate possible to catch her beginning to assume landing position. I used a high ISO to freeze the wings more than normal.

Aperture-priority, shutter-priority, program, and manual are the most widely used exposure modes and every camera I see offers these choices. What has changed since the film days is in today's digital world, ISO can easily be changed from shot to shot, and that changes the exposure mode options big time! Program, shutter-priority, and aperture-priority were all available when we shot film, but are they the best options today? I have written this article to explain how I approach digital exposure in 2021. My hope some of the content found here will help you too. Over time, I continually evolve and change how I photograph, sometimes due to new phot experiences or new information, but most often due to new options put into my camera.

Program

Program mode is an automatic mode where the camera sets the shutter speed and aperture for you, but you still select the ISO. This method lets you adjust the selected aperture/shutter speed combination when you wish to do it. This mode knows what shutter speed to select to achieve sharp images handheld because it knows the focal length being used so it automatically tends to go by the well-known 1/focal length for shutter speed idea. Of course, if you are shooting on a stable platform – tripod, monopod, bean bag – then it will pick a shutter speed higher than you need much of the time, but you can modify the settings to suit your tastes.

Shutter-priority

Shutter-priority does exactly what you think it should do. It is an auto exposure mode where you set the preferred shutter speed and the camera automatically sets the aperture to produce a standard exposure. If the subject or surroundings vary considerably from middle-tone reflectance, then exposure compensation must be used to achieve the ideal exposure. I once used shutter-priority frequently on my Kenya wildlife photo tours because shutter speed is critical for achieving sharp images with long lenses, like the Canon 200-400mm and 800mm that I take to Kenya or for freezing the action of speedy wildlife. When you use exposure compensation, such as setting +1 EC, the shutter remains what you set and the aperture open one stop to make the image brighter. I no longer use shutter priority as I find other options work better for me, and I think they will work better for you too.

Shutter-priority has its problems. Anytime the ambient light diminishes suddenly, the aperture opens to accommodate the drop in ambient light. That is okay if depth of field is not that critical, but it is a problem if the lens cannot open enough to produce a useful exposure. For example, while photographing Eastern fox squirrels in Indiana on a bright overcast day, if I used Shutter-priority with the shutter speed set to 1/500 second to make sharp images with the Canon 800mm f/5.6 lens I use, and I manually select 1/500 second and then the camera automatically sets f/8, I grossly underexpose the squirrel when it scampers to a new location where trees block the light from the sky and the ambient light drops three stops. Since the lens can only open one stop to f/5.6 but needs to open to f/2.8 and that is not available on my lens, then the images are two stops underexposed. Of course, you can brighten the image when processed, though, you will have more noise and other image defects.



Figure 2 Another easy exposure on this trumpeter swan on the Madison River of Yellowstone National Park. I manually set the exposure to produce the first blinkies in the white swan feathers.

Aperture-priority

Aperture-priority is the reverse of shutter-priority. Set the desired aperture, and the camera selects the appropriate shutter speed to produce a standard exposure at the ISO you set on the camera. I am well aware this option is enormously popular, but I have never been a fan of it and encourage my workshop clients to abandon it. Most photographers who use aperture-priority tell me depth of field is super important to them and they wish to maintain the DOF they prefer. Of course, the depth of field is generally considered the zone of apparent sharp focus and that is largely influenced by the aperture and the subject magnification. I know many say the focal length is a big factor in depth of field, but really it is magnification, not focal length. Short lenses tend to produce images with lots of depth of field and long lenses with shallow depth of field, but it is not the focal length, it is the magnification. Long lenses magnify a lot and short lenses do not as they are normally used. Preserving the aperture locks in the depth of field! That is true and thus aperture-priority is popular. Depth of field is important to me as well, but there are far better ways to get there while avoiding the pitfalls of aperture-priority. Some say "aperture-priority is my exposure mode 100% of the time!" I smile at such as comment and do not bother to explain my ideas further because I know many are still locked into old way of doing things, even though new cameras offer far better exposure solutions. Becoming a better photographer has much to do with always learning better ways to shoot photos. If I were a fan of aperture-priority, and someone told me there is a far better way to do exposure, rather than defend the aperture-priority choice I had been using, I would listen to what they have to say. For me, if there is a better way to take photos, I want to know about it and adopt better ways while dropping older methods. At least once you understand the other method being promoted, you can make an informed decision as to which one to use.



Figure 3 For wildlife in Kenya's game parks, I prefer Auto ISO with manual aperture and shutter speed along with exposure compensation. Most of the time a small positive exposure compensation works, such as + 2/3-stop, but it really depends on the subject and its surroundings. There is no such thing as an exposure compensation that works all the time or even most of the time. Because my groups photograph from safari vehicles designed for that purpose and it is easy and quick to move from an animal in the sun to one in the shade, having the camera do some of the exposure work makes sense. Plus, the environment is mostly like this, not real dark or bright. I do use manual exposure when photographing animals on a sunny day in the water though.

Having led forty photo tours to Kenya and another twenty to the Galapagos where wildlife photography is fabulous beyond belief, aperture-priority fails big-time when you are set to produce superb images in bright ambient light, and then the ambient light suddenly drops two to five stops. Here is the problem. Aperture-priority keeps the aperture set by the user and the shutter speed varies to produce the standard exposure or the adjusted exposure if exposure compensation is employed. If you are photographing elephants in fairly bright light out in the open and using f/8 at 1/250 second with ISO 400, should you leave the elephants and drive through a small woodland in the Mara and see a leopard walking slowly along the bank of the river, but it will only be in a small shaded clearing for a couple of seconds, you throw your camera on the bean bag, put the AF points on the leopard's head to focus it, and fire away. How did you do? If the ambient light in that woodland is four stops less than in the open with the elephants, the camera automatically drops the shutter speed four stops from 1/250 second to 1/15 second. The leopard exposure likely is good, but nothing is sharp at 1/15 second shutter speed, so the leopard images fail. Indeed, getting clients to abandon aperture-priority for a more suitable exposure method has not been easy, but the results they get by abandoning aperture-priority prove the

advantages of a far more useful exposure method. (Note: Some point out here that you can set the shutter speed range to stop the camera from selecting shutter speeds that are too slow. Once the minimum shutter speed is reached, then the ISO goes higher to produce the exposure. That all sounds like effective way to get around having the shutter speed drop too low, but once again I find doing that is counterproductive, and I never restrict shutter speeds, ISOs, or apertures on my camera. I will tell you why later.)

The Exposure Methods I Use Now

Over the past several years, I have used only two exposure methods – Full manual and Auto ISO with manual aperture and shutter speed along with EC. From shooting at least 2 million images with them, they have proven themselves to be superior to other methods I have abandoned along the way. I use manual exposure 70% of the time and Auto ISO the rest of the time. I prefer Manual exposure when the amount of ambient light does not vary much. When the ambient light is continually getting brighter or darker, then I prefer the autoexposure mode of Auto ISO. And some have argued with me that Auto ISO is a manual mode because the shutter speed and aperture are set manually. But.....the ISO is automatically adjusted so that makes it an automatic exposure mode, just like aperture and shutter priority where you manually set one of the exposure parameters, only with Auto ISO, you manually set two – shutter speed and aperture – and let the ISO automatically adjust its value as light conditions change.



Figure 4 Snow is easy to expose. Set the ISO and f/stop you want, and then adjust the shutter speed until the live histogram barely touches the right wall of the histogram, and shoot. Play back the image to see if any blinkies are present. If none, add 1/3-stop and shoot again and check for blinkies. If some blinkies appear, these I call the first blinkies, and normally I go with that. But this is a dark moose, so I added 1/3-stop more light to get more detail n the dark fur and less noise since noise lives in the shadows. I realize there is not much detail in the snow, but on a dark cloudy day, fresh snow does not have much detail as it all looks alike with the same brightness. You need contrast, like that created by sunshine, to see detail and that was not happening this day.

Manual Exposure

When leading winter Yellowstone photo tours, I use manual exposure for all images – whether landscape or wildlife. Snow is white and that will cause all automatic exposure modes to underexpose the image unless you set a significant amount of positive exposure compensation. For example, setting the EC to plus 2 will increase the brightness of the exposure by two stops so the snow looks much whiter. But, as you change composition where the dark tones and the light snow tones vary percentage wise from shot to shot, that means each will cause the camera to set a different exposure. In this case, manual exposure is far easier because the exposure remains the same no matter if the dark bison fills 25% or 75% of the image. In other words, on automatic exposure is proper when the viewfinder is filled with 20% darks and 80% white snow, increasing the percentage of dark tones when you change the composition or the bison walks closer, the camera will increase the exposure to get back to its average, and overexpose the detail in the snow. On the other hand, if you increase the percentage of white snow tones, then the camera leans toward the underexposure side of things. Manual exposure eliminates all this.

In practice with manual exposure, I simply set the ISO I prefer, then the aperture, and adjust the exposure using the shutter speed. This works for all still objects where depth of field is more important than shutter speed. (I almost always use a tripod.) With wildlife and especially with long lenses, then I set the ISO, the important shutter speed for sharp images, and arrive at the optimum exposure by adjusting the aperture.



Figure 5 I nearly always use manual exposure for both landscapes and closeup images. Both subjects give you plenty of time, even a setting sun as it changes the colors in the clouds and Jackson Lake of the Grand Tetons. What aperture do you use here? Everything in this scene is at infinity, so I focus on the mountain peak and use f/8. There is no need to stop the lens down more

because you do not need more depth of field and if you do, the overall image will be less sharp due to diffraction and the smaller apertures. Two to three stops down from the maximum aperture is typically the sweet spot on most lenses. That is a good guideline to go by.

How do I determine a suitable exposure? I shoot only large RAW files. After setting two exposure parameters, I determine the third with an exposure aid called the highlight alert (aka blinkies). With landscapes, I turn on live view to see a live histogram, adjust one of the exposure controls to run the rightmost edge of the histogram data over to the right wall of the histogram and shoot an image. It does not even need to be in focus, and check for blinkies. If no blinkies, then I add another 1/3-stop of light and shoot another. If the first blinkies appear, then I use that for my exposure. If the subject has important dark areas – such as a bison or moose in the snow – then I add another 1/3-stop of light to get more detail in the animal with less noise. I call these the "second blinkies." I realize that many teach blinkies indicate overexposed highlights and should be avoided. However, keep in mind that I suggest you shoot RAW images, and both the in-camera highlight alert and histogram are based on an embedded JPEG in the RAW file, and not on the RAW data that covers a much wider brightness range. This means most cameras truly do not overexpose highlight detail until they are at least one stop brighter or more than when the first blinkies appear.

By the way, I do not find it is accurate to judge the exposure by how it appears on your camera's LCD in live view or in the viewfinder when you play it back. The LCD can be made lighter or darker to suit the viewing conditions. So, if an image looks too dark as you view it on the LCD, is it underexposed or is the LCD turned down to make it appear that way. The safe way is to use your camera exposure aids – the histogram and the highlight alert – and adjust the exposure according to them, keeping in mind both are based on the JPEG embedded in a RAW file. For me, I find using the live histogram to get me close, and then looking for blinkies in playback works best.

Finally, before moving on to my next exposure mode choice, let me review three enormous problems for all automatic exposure modes that are nicely eliminated with manual exposure. First, if the size of the subject or background changes from one composition to another, changes in the percentage of light and dark tones easily throw off autoexposure modes, but manual exposure has no difficulty with it because the camera cannot change any of the three exposure controls automatically without your permission. Second, when photographing active wildlife often the background brightness changes as you pan with the animal. It is no problem for manual, but an enormous problem for automatic modes. For example, if you have the ideal exposure set for a great-blue heron flying against a blue sky, and then it passes by a bank of white clouds, autoexposure will "see" all the new light tones of the white clouds, do its averaging, and underexpose the heron. You are far better off to use full manual exposure. And third, if you are shooting on a tripod and do not have your eye up to the viewfinder, light can enter the viewfinder and the exposure meter "sees" this light, adds it to the exposure, but of course light through the viewfinder never reaches the sensor, and this causes underexposure. For these reason, and ease of use, I greatly prefer manual exposure whenever it works best and that is most of the time. Note: Light through the viewfinder is not a problem for my new Canon R5 mirrorless camera – another advantage of mirrorless.

One more "finally." More than two decades ago I discovered I could reverse the dials on my Canon cameras. This option is found in various Canon camera menus, to find it, look for Dial Direction during TV/AV. But it also works for manual exposure. What it does is reverse the two dials you use to set the

aperture and the shutter speed. Without using this option, the default for manually adjusting the shutter speed or aperture is to turn the dial left if you are touching the top of the dial to add light. I always thought this was strange. Adding light moves the histogram data to the right, but to do it, you must turn the dial the opposite way to the left (or counterclockwise.) For me, it is far more logical to turn the dial to the right when I wish to add light and move the histogram data also to the right – the same direction. Once I reversed the dials, I never turn the exposure dials the wrong way because it is more logical that way for me. If I want to add light, I turn the dial right and to subtract light that moves the histogram data left, I turn the dial left. Notice earlier I said from the top of the dial. If you touch the dial on top and turn right, you do add light, but if you were to touch the dial on the bottom and turn right, you subtract light since that would make the dial move counterclockwise. Maybe it is just me, but reversing the dials makes turning them the way I intended far more logical. And when I tell clients about this, some of them go for it and do well. Others say they learned to do it the other way and will keep doing it that way. To be honest, if you actually have learned to turn the dial opposite the way you want the histogram data to move – that is wonderful, and I say keep doing it that way. However, I have noticed most who say they learned to do it the other way and want to keep using that method, when I watch them adjust their exposure using manual, most are just as likely to turn their exposure dial the wrong way as the right way. I say they have not learned their dials, or the dials are not logical to them. Perhaps learning to turn the dial the same direction you want the histogram data to move is easier to remember and therefore you are less likely to make a mistake. It works for me super well as I have a hard time remembering much of anything these days!!!!!!

Auto ISO, Manual A & P, and Exposure Compensation

When I am photographing wildlife that are close to mid-tone in reflectance and found close to mid-tone environments and I know the ambient light will vary in brightness continually and sometimes quickly, then Auto ISO is by far the better way to achieve excellent exposures. I have known about Auto ISO for many years but did not use it early on only because Canon cameras did not offer a way to use exposure compensation with it, but now they do with the latest camera models. Let us use it to photograph lions. The ambient light is darker than I would like. Right away I know I must use a high ISO and a slower shutter speed than I prefer with my 800mm lens on a tripod. Since I must have both hands touching the camera even on a tripod while using long lens shooting techniques, vibrations remain a problem. My image stabilization is active in all directions as I do not plan to pan with running lions as it is obvious the lion is not going anywhere soon. My Canon R5 delivers good results at ISO 1000, so I set that and then set the shutter speed to 1/125 second, and I get f/8 to produce a standard exposure. But when I shoot a test image, I get no blinkies as the lion is slightly brighter than middle-tone and so are the golden grasses it is resting in. Setting the exposure compensation to plus 1/3-stop produces the first blinkies in the brightest portions of the image. I use that for all my lion shots. The beauty of Auto ISO is that the camera automatically adjusts the ISO to produce a fine exposure when the lions pose in areas of differing ambient light amounts or the ambient light changes due to cloud cover or rising or setting.



Figure 6 I would never use autoexposure on a white bird as both the white bird and the background can affect the exposure too much. It is safer to do it with full manual exposure. I set the camera to produce the first blinkies in the white feathers and go with that. How did I have time to do all that with a white pelican flying at me? Easy! This was the fifth pelican to take this particular flight path, so I used the first pelican that landed by me as my test target and then I was ready for the rest of them.



Figure 7 It was a sunny afternoon at my Laguna Seca Ranch bird photography workshop. Since the light stayed consistent, I used manual exposure for about two hours on all the birds such as this golden-fronted woodpecker. Once the sun dropped into the western sky enough where the brightness of the sunshine gradually began to drop, then I switched to Auto ISO to let the camera monitor the dipping light levels – one less thing for me to do.

What Overexposure really Means

One more point. Many say that when exposure compensation is set to +1, you are telling the camera to overexpose by one stop of light. That is not correct. Overexposure means you have lost detail in important highlights and you cannot recover those details no matter how much you darken the highlights in processing. Adding 1 stop to compensate for a light subject is not overexposure, but rather compensating for the bright tones in the scene to arrive at a more ideal exposure – not overexposure!

To review, if you set exposure compensation to +2/3, +1 1/3, -1 or perhaps -1 1/3, you are not overexposing or underexposing if the image is well exposed. You are compensating the exposure to get the suitable exposure. By the way, the exposure compensation only works with an auto exposure mode. If you are on full manual, then do not mess with the exposure compensation control, but rather use the exposure scale you see in the viewfinder and do it manually. If on manual exposure, and the exposure scale indicates a +2/3 stop exposure compensation, that is compensation that you set on manual.

Make Exposure Compensation Easy to Set

Unfortunately, the exposure compensation control on my cameras is buried in menus when using Auto ISO. Anything stashed away in a menu is painfully SLOW!!! But cameras can be programmed in numerous ways, so I wondered if there might be another way to do it. Upon studying all my options for programming various buttons on my camera, I spotted a better way. On both my Canon 1DX Mark III and R5, I assign EC (exposure compensation) to the SET button. To compensate the exposure, I press the SET button and rotate the main dial on top of the camera clockwise to add EC, and counterclockwise to subtract EC. This is quick and efficient!

How Often do you need to compensate the exposure?

Your camera is set to produce a standard exposure (Canon uses these standard exposure terms) and it does produce a reasonably good exposure for subjects and overall scenes that average to 18% reflectance. However, if you point your camera at a white snow scene, the camera reduces the exposure to produce 18% reflectance snow and now the image is too dark. Point the camera at a black subject that fills the frame, and it will be too light unless you use exposure compensation. I find I must compensate the exposure at least 80% of the time if not more – I am fussy I now.



Figure 8 I do not know that I have ever used any autoexposure mode for flying birds like this crested caracara at the Laguna Seca Ranch. The changing size of the subject as it flies and the background, especially if the brightness changes negatively affects the autoexposure too much. Manual is my choice!

How does EC adjust the exposure using Auto ISO?

The aperture and shutter speed are both set manually, so EC does not change them. Setting +1-stop EC makes the camera select an ISO one stop higher. If the camera sets ISO 400 with no EC, then it sets ISO 800 with +1 EC and ISO 1600 with +2 EC. It is easy to see what ISO is selected, and if too much for your purposes or tastes, then your options are to manually slow the shutter speed, open the aperture, or a combination of both. And keep in mind that Auto ISO, even with aperture and shutter speed manually set, is an autoexposure mode and suffers from all the pitfalls that autoexposure produces. That is why I only use it when I must shoot rapidly in changeable ambient light. Otherwise, I greatly prefer full manual exposure.

Do not USE AUTO ISO because the ISO will go too high and produce noisy images!!!!

I hear so often about the reason to not use Auto ISO that I feel I should address this now. It is true if you use Auto ISO and set a fast shutter speed and stop the lens down to f/8 and shoot in dim light, the ISO might easily rise much higher than you wish to use. But that is not a reason avoid using Auto ISO. It is easy enough to tell when the low ambient light will tend to push the camera to ISOs higher than you wish to use. When I see that situation, I immediately set the slowest shutter speed I think I can get by with and may even open up the lens all the way to lower the ISO. If that does not do it, I have been known to drop the shutter speed much lower than I wish to use to get by and often it does work.

Afterall, it really does not matter if you are using manual, aperture-priority, shutter-priority, or Auto ISO, a subject that must be exposed at a rather slower shutter speed of 1/60 second at the wide-open aperture of f/5.6 and at ISO 1000 will need that exposure no matter the exposure mode you are using.



Figure 9 Here I used manual exposure to produce the first blinkies in the lion's fur. I also had to use a super slow shutter speed of only 1/4 second with a Canon 600mm f/4 lens. I did warm up the image, but it is shot before sunrise so the light is super dark. This is a case where I could see the light is dark, so I immediately opened the lens to f/4 (it could not open more) and slowed the shutter speed down to lower the ISO. Even with an exposure of only ¼ second at f/4, Auto ISO still used ISO 1000. Of course, I started at 1/250 second shutter speed, but found the ISO too high, so to drop it, I had no choice but to slow the shutter speed. I figured nothing would be sharp at ¼ second, and mostly I was correct. Out of 40 shots using my best shooting technique, I captured only 2 sharp images, but I only needed one!!! Success!!

Limit the Shutter Speeds when using Auto ISO?

Some still promote aperture-priority and take steps to eliminate the problem of allowing the camera to slow the shutter speed down too much. They tell you to limit the shutter speed choices. On many cameras, you can actually set a shutter speed limit so the camera will select a shutter speed no slower than a certain value – such as 1/125 second. Once the camera needs to get more light to produce a suitable exposure with aperture-priority, it will increase the ISO rather than drop the shutter speed below 1/125 second. This sounds like a solution to eliminate the dreaded shutter speed drop problem. But that is the last thing I would do. I often run into situations where I must balance ISO, shutter speed, and aperture to get the image at all. Often I have to use more ISO than I would like. At other times in dim light, I am forced to use an ISO much higher than I like, such as ISO 16000 and shoot wide-open to maintain a decent shutter speed. But, not wanting to use such a noisy ISO, I am forced to use a shutter speed much slower than I wish to use. When this happens, I use the best photo technique I can in the

situation, and then shoot far more images than normal. So far, my best test has been a male lion sitting out in the open in the Masai Mara ½ hour before sunrise. With a 600mm lens on a bean bag in a landrover with four others who move and rock the vehicle, I slowed the shutter speed down to a ridiculously slow ¼ second to lower the ISO to 1000 and shot forty times. I knew they would be too soft to use with only a ¼ second shutter speed, but when I edited them, sometimes miracles happen, and I got two sharp images and 38 fuzzy ones. I only needed one sharp image! So, when I must use a shutter speed slower than I normally use, I do it, shoot more images than normal, and hope random luck provides me with a suitable image. That means the last thing I want my camera to do is restrict how slow a shutter speed I can select, so no thanks, I am **not** limiting shutter speeds!



Figure 10 These are snow geese at the famous Bosque del Apache refuge in New Mexico during November when thousands of geese and cranes winter there. I used manual exposure with the 1st blinkies and get it off the same white snow geese that are swimming on the water in the same sunshine as the birds that are flying.

And for those who say they use aperture-priority because depth of field is important to them, it is important to me too. Please notice both exposure methods I promote today give priority to the aperture I set. With both manual and Auto ISO, I set the aperture manually to achieve the depth of field I desire and gain the advantages of manual and Auto ISO that are not offered by aperture and shutter-priority. Indeed, both aperture-priority and shutter-priority date back to the film days when ISO was essentially not variable unless you change rolls of film. It is really time to move on to take advantage of current technologies. Indeed, with both manual or Auto ISO, the shutter speed and the aperture are set by the photographer and stay there unless you change them. That is like having aperture-priority and shutter-priority simultaneously. That is not to say there is no reason to use aperture -priority as I can think of one unique situation where I would use it. If your camera is capable of Auto ISO with exposure compensation, I urge you to upgrade your photo game for more fun and better images!!!

Okay, I know you are curious. What is that situation where I might use aperture-priority? I often use flash to light up my landscapes at dusk. If I set out four flashes on light stands to light a hoodoo at twilight, we all agree once I set the flashes to properly light the landscape foreground, then I do not change the ISO and the aperture as that affects flash exposure, but shutter speeds at the maximum sync speed and slower do not affect the flash exposure. By using aperture-priority, the slowing shutter speed as the ambient light dims at sunset does not affect the flash portion of the exposure but does allow the ambient light in the background to still look good since aperture-priority lets the shutter speed fall.



Figure 11 In this case, the afternoon sunshine was continually changing in brightness as the sun moved in and out of the clouds. Trying to use manual exposure here would drive me crazy (and nobody wants that, or you think I already am!) so I used Auto ISO to set the exposure and monitor the changing light levels for this yellow-crowned night heron. This bird was perched at some distance, so I used a Canon R5, 600mm f/4 lens. 1.4x teleconverter, and the crop mode of 1.6x. It is sort of like have a 1344 mm lens, though optically, it is an 840mm lens.

So that is my take on it right now. Do not get me wrong, I carefully work my way through all the menus of my new camera, and hopefully, I can master it as I did with my previous models. I am getting older, and cameras are continually packed with more features – whether we want them or not. Cameras are more complicated and keep worse as more options are packed into them. The methods I describe here work well for me. I think exposure is simple and do it quickly, but I am aware there are options on my camera I still do not fully utilize like I should or do not yet see where they would be helpful, so I always strive to learn more. It makes photography more fun. I still wonder why camera makers who can put in a live histogram and now is some cameras live blinkies or zebras but do not give us an autoexposure mode where we can set it to produce the first blinkies, or the second blinkies, or whatever works best for us. Then we could use full autoexposure all the time!

I hope this article has given you some ideas to improve your photography. Sorry, if I was a little opinionated at time, but with my decades of experience and desire to shoot photos that please me I continually look for better and faster ways to do things. Even now I still seek better ways to expose photos and I expect that in time I will no doubt modify how I determine the exposure I seek.



Figure 12 Manual exposure is king here with this green heron in Phoenix, AZ. With light that is not changing in brightness, give me manual exposure every time!!!



Figure 13 This flying crested caracara was photographed while I had a workshop at the Laguna Seca Ranch near Edinburg, TX. About 30 caracaras were in front of us, so I set my exposure manually to produce a few blinkies in the light feathers of a bird perched on a branch in front of me. Once I got some blinkies that I can only see when I Play Back the image I shot, I used that for the flying birds as all were in the same morning sunshine.