



Sigma 17–70mm and 70–300mm Zoom Lenses

By Stan Sholik

Left: Quick focusing, a wide zoom range and excellent sharpness make the 17–70mm lens a good choice for kids, events and weddings. **Right:** The Sigma 70–300mm lens fully compressed at 70mm.

Sigma's introduction of two new optically stabilized lenses cover the focal length range from 17mm to 300mm. Photographers with APS-C bodies from Canon, Nikon, Sony, Pentax and Sigma will be able to take advantage of this full range. Canon, Nikon, Sony, Pentax and Sigma photographers shooting film or full-frame digital will be able to use the 70–300mm, but not the optically superb 17–70mm. Pentax and Sony photographers have the option of using the anti-shake system in either the lenses or the camera body.

The optical stabilization (OS) system incorporated into both lenses is in keeping with Sigma's goal of incorporating this feature in every lens possible. But it is not without its quirks, at least according to Sigma. Because the OS draws power from the camera battery, they recommend turning off the system when it is not being used. I admit to never doing this, and I never had a problem with battery drain on the D2X after hours of shooting with either lens.

Sigma also recommends turning the OS off before attaching or removing the lens from the camera to prevent damage to the system. I rarely did this and I didn't damage the lenses, but I always turn off a digital camera before making any configuration change, so this is what probably saved me. If you change lenses, batteries or cards with your camera turned on, follow Sigma's advice and make sure the OS on the lens is switched to the off position before mounting or removing it.

Sigma's OS system is reasonably quick to stabilize, but with an obvious "jump" in framing for which you must compensate. The instructions packaged with the lens say it takes about one second for the OS to achieve a stable focus after depressing the shutter release halfway. In most cases it seemed faster than this to me.

The OS system switch only provides two positions, ON and OFF, unlike some other Sigma lenses with one setting for most shooting situations and a second setting for tracking a subject that is moving horizontally. With the 70–300mm, I shot with the OS system both on and off while panning to track racecars and found that a higher percentage of the images were sharp with the system on than with the system off. I was able to achieve a high percentage of sharp images on the D2X handheld at $1/60$ second and about half of those at $1/30$ with the lens at 300mm.

More information about both lenses is available on the Sigma Corporation website, www.sigmaphoto.com.



Above: The 17–70mm includes a magnification scale on the lens barrel that is revealed as the lens extends. Maximum magnification is 1:2.3 at the 70mm position. **Right:** Switches on the body of the 17–70mm control the autofocus and optical stabilization systems. There is also a "Lock" switch to lock the lens in its 17mm position when you are carrying it.





Above: The wide zoom range of the 17–70mm means you only need to carry one lens when covering events to capture overall coverage as well as individuals and groups. **Right:** Quick focusing, a wide zoom range and excellent sharpness make the 17–70mm lens a good choice for kids, events and weddings.

Sigma 17–70mm f/2.8–4 DC Macro OS HSM

Sigma sent me the Nikon version of the lens for testing on my D2X. When I first started using this lens, I thought the images on the camera LCD screen looked different than the captures I have made for years with my 17–35mm f/2.8 Nikkor. But I thought maybe it was the new glasses I was wearing.

It wasn't my glasses. When I opened the images on the computer, I immediately confirmed the difference—they were sharper! Now I have always considered my 17–35mm Nikkor a great performer, and until I encountered this Sigma, the Nikkor has had no competition with other third party wide-angle zooms I have tested.

I thought I had to be mistaken, so I took out my tripod, shot both lenses at 17mm, 24mm and 35mm, at every full aperture, and found that it was no mistake. The Sigma outperformed the Nikkor at all focal lengths and apertures. This performance from a lens with an MSRP (\$580) about one-third that of the non image-stabilized Nikkor and a street price of less than \$450.

The Sigma is one sweet lens for PR, events, weddings, group



shots and even portraits. I have been taking it to assignments and leaving both my 17–35mm and 35–70mm Nikkors at home. The Sigma is lighter and slightly smaller in diameter. It is also



Above: The 70–300mm lens has the perfect focal length range to cover many types of sports, especially amateur and kids sports. But I had to do a lot of manual zone focusing during the Baja 1000 because the auto-focus couldn't keep up with the professional racers coming toward me. **Right:** While the 70–300mm is not intended as a close-up lens, it performs very well even handheld thanks to its optical stabilizing system and 1:3.9 maximum magnification. The 9-blade diaphragm gives pleasing softness to the out-of-focus background.



significantly shorter when locked at its 17mm position, although it does almost double in length at its 70mm position.

The only thing that I don't like about the lens is that the zoom ring rotates in the opposite direction from the zoom ring on my Nikkors! Canon photographers will have this issue with the focusing ring, but that's less of an issue since the lens is autofocus. I would love to see third party lens suppliers produce different lenses with focus and zoom controls matched to those of the camera manufacturer lenses. Or include a switch to reverse the polarity of the motors so you can choose which direction the rings will turn.

With the built-in hypersonic motor (HSM), it was almost as quick and quiet to focus as the 17–35mm Nikkor and faster than the 35–70mm. The built-in motor makes the lens suitable for use on all Nikon APS-C bodies. Although the lens includes the HSM motor, autofocus must be turned off on the lens in order to manually focus without damaging the motor.

And as a bonus it focuses to 9 inches at all focal lengths, for a

maximum reproduction ratio of 1:2.3 at 70mm, but with significant color fringing with the purple flowers I was photographing. Other close-up captures, however, didn't exhibit color fringing.

The Sigma 17–70mm f/2.8–4 is a great lens and would make an excellent choice for professionals looking for a prime lens to carry on assignment.

Sigma 70–300mm f/4–5.6 DG OS

Zoom lenses with a 70–300mm range are the most popular choice with advanced amateurs for their first lens purchase after buying their digital camera and kit lens. Every camera manufacturer and most third party lens suppliers have an affordable lens in this range and some have several.

There are good reasons for this. The 4.3X zoom ratio packs a lot of very useful focal lengths into one lens, no matter whether your camera has a full frame or APS-C sensor. The f/4 (or sometime f/4.5) maximum aperture of these variable-aperture lenses makes for smaller diameters and lighter weight than

fixed-aperture $f/2.8$ lenses.

These same attributes should make these lenses of real interest to professionals, but many have shied away because of the $f/5.6$ maximum aperture at 300mm. However, this is less of a concern now that the new generation of digital SLRs has excellent image quality at high ISO settings.

I tested the Nikon version of the 70–300mm, primarily on a Nikon D2X, where the equivalent focal lengths became 105mm to 450mm, but also on a Nikon F100 with film. Since the lens does not contain an internal motor, it is only suitable for Nikon bodies with internal motors—not the D40, for example. This also prevents you from manually cleaning up the focus when in Autofocus mode. Sigma warns that serious damage to the lens can result.

Autofocus speed is okay, but nowhere near the speed of lenses with internal motors, including Sigma's own Hyper-Sonic Motor (HSM) lenses. Driving the focus from its minimum distance to infinity seems painfully slow if you are used to lenses with internal motors, but in reality, this is not something that you would be constantly doing. Within reasonable distance changes, I rarely had a problem achieving focus lock, even when shooting an off-road race. There is some hunting for focus lock

at close focusing distances, but that is expected with a relatively slow lens with this zoom range.

Talking about close focusing, this 70–300mm focuses to just under five feet throughout its zoom range, for a maximum magnification of 1:3.9 at the 300mm setting. Not quite as good as the Sigma 70–300mm DG MACRO lenses that focus to 1:2, but impressive and useful nonetheless and on par with equivalent lenses from the camera manufacturers themselves.

Even though this lens, as with the 17–70mm, is not part of Sigma's highly-regarded EX series of zoom lenses, optical performance is very good, particularly considering the zoom range and price point for an image-stabilized lens of these focal lengths. At its closest focusing distance and 300mm focal length, contrast and sharpness are very good. I found performance at 300mm to be better than that at 70mm, and I was particularly happy with my off-road race photos that I took with this lens.

MSRP of the Sigma 70–300mm $f/4-5.6$ DG OS is \$599 and includes the lens hood. Significant discounts are available from dealers.



Stan Sholik is a commercial photographer with over 30 years of studio and location experience. His specialty is still life photography for food, jewelry, medical and high-tech clients.

Sigma 17–70mm $f/2.8-4$ DC Macro OS HSM

Lens Construction	15 Elements in 12 Groups
Angle of View	72.4–20.2 degrees
Number of Diaphragm Blades	7
Minimum Aperture	$f/22$
Minimum Focusing Distance	7.9 inches
Maximum Magnification	1:2.3
Filter Size Diameter	72mm
Lens Hood	Bayonet type
Dimensions	Diameter: 3.1x3.2 inches
Weight	16 oz.
Corresponding AF Mounts	Sigma, Canon, Nikon, Sony, Pentax (non-SF series)

Sigma 70–300mm $f/4-5.6$ DG OS

Lens Construction	16 Elements in 11 Groups
Angle of View	34.3–8.2 degrees
Number of Diaphragm Blades	9 (rounded diaphragm)
Minimum Aperture	$f/22$
Minimum Focusing Distance	59.1 inches
Maximum Magnification	1:3.9
Filter Size Diameter	62mm
Lens Hood	Bayonet type
Dimensions	Diameter: 3.0x5.0 inches
Weight	21.5 oz.
Corresponding AF Mounts	Sigma AF, Canon AF, Nikon AF, Sony AF, Pentax AF