Sigma EX120-300 f2.8 APO DG OS HSM – A field review

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Introduction

I've been using the Sigma EX 120-300 f2.8 APO HSM lens since 19 September 2003, exactly 8 years to the specific day of writing this review (I know because it says so on the original invoice). Now everyone who knows me and has seen my photography on sport and birding with the odd wildlife moments thrown in for good measure, know that I've fully endorsed the original Sigma EX 120-300 f2.8 APO HSM lens from the beginning, in fact I've sung its praises *ad infinitum*, all relating to sharpness, auto-focus (AF) speed, colour rendition, general image quality (IQ) and bouquet. Now Sigma has improved this lens to its third generation, the original being my copy, then the slightly modified DG version which was basically the same lens as the initial version with added lens coatings on the rear and other elements to minimise reflections and ghosting experienced with certain camera bodies, although I have to admit I never had that specific problem through thousands of photo's taken with the lens mounted on my Canon EOS D30 (yes the ancient, original D-SLR of 3.25MP fame!) my EOS 20D, 1 MkII and 1D MkIV bodies, with the Sigma EX 1.4x teleconverter (TC) and the Canon MkII 1.4x TC thrown in for good measure. Finally there's now the latest iteration of this lens, the Sigma EX 120-300 f2.8 APO DG OS HSM, basically very similar to the original DG version, but redesigned with the some improvements on the optics, AF and obviously the introduction of Optical Stabilization (OS).

In the hand

Used to the heft, size and feel of the older, first generation lens, the new one was very apparent in its heavier overall appearance and weight, comparing the two side by side shows the new lens to be slightly longer than the older model, and with the new style lens hood is even longer still.

Weight is also up (mostly due to the new OS module) from 2.78kg for my older first generation model to 3.15 kg for the new OS model. The design of the lens hood is totally different than the older model, which had a metallic lens hood with a bayonet fitting and lock nut to keep in position. The new lens hood is plastic with a bayonet mount with click-lock only. I guess most people will not be bothered by this, for me it was a step backwards, it just didn't 'feel' right, but then I'm biased towards the older version on this issue; newcomers to the lens will not even notice this, and the lens hood design is being used for many years by Sigma on their other lenses, from the older discontinued 135-400, 170-500, newer 120-400 and 150-500 and the current 50-500 lenses with no ill effects. Also by Canon on the 100-400 L which has a similar hood design. Let me also add that I had a Sigma 135-400 for about two and half years back in 2001-2003, which was a non-EX lens, and that lens hood never failed or worked loose from the click-locked position. OK, I'll stop being biased.

The lens is fitted with Sigma's latest generation OS module, including a two mode operation, 1 for standard OS and mode 2 for panning. It is advertised to provide a 4-stop advantage in camera shake reduction, more on this later. The switch for the OS activation and mode setting and the AF/MF selection switch are easily reached and positioned on the side of the lens barrel close to the collar mount. The new design of the tri-pod collar mount also allows it to serve as a nice carry handle, deep enough from the lens body to easily fit in the hand and much better than my original shallow design collar mount, replaced later by the optional deep design mount. HSM AF module allows full-time manual override, meaning you need not switch to MF setting to perform a MF operation.

In the field

Enough of the how it looks mumbo jumbo, the proof of the pudding is in the eating, or in this case the photos and how presentable they are.

I tested the lens in a sports application, by using it to cover the Vodacom Blue Bulls vs the DHL Western Province Currie Cup 2011 clash at Loftus Versveld in Pretoria, and also some birding shots at Austen Robberts Bird Sanctuary in Groenkloof, Pretoria.

Initial testing with the lens showed a slight focus offset calibration, back-focussing by about 8cm @ 13m subject distance, on 300mm, only on my EOS 1D MkIV, but was spot-on when mounted to my 1D MkII. This was quickly resolved using a -4 point setting on the MkIV's AF fine-tuning Custom Function setting. At the same time I tested the functionality of the OS at slow ss, shooting the Prodrive logo on my car handheld, 1/50 and f2.8, 300mm. The advantage that the OS module offers is immediately apparent by viewing the test photos. Cropped from the original to show only the lettering , resized for print.

Rugby first: no OS was used and the AF mode used on my EOS 1D MkIV body was set to AI Servo, and a Canon MkII 1.4x TC was used to determine the tracking capability at 420mm f4, in good daylight conditions. I set Av mode, wide open lens (f 4) and tested the lens on the U21 match played as an opener for the main event.

U21 match, with 1.4x TC, monopod in belt pouch, 1D MkIV, AI servo,

Then for the main event I removed the 1.4x TC and shot the whole match which was day-night event, using the clean lens, again setting the MkIV to Av f2.8, AI Servo, comparing the results afterwards with the 1.4x event and with the thousands of shots taken with my older, first iteration lens. Viewing the photos showed that the new lens is performing as good if not slightly better than my older lens. AF tracking was fast and consistently accurate, in all honesty I cannot say it was much

better than on the older lens, but most definitely on the same level or slightly better, which makes it really very good in my book.

Vodacom Blue Bulls vs DHL WP, Currie Cup 2011, monopod in belt pouch, 1D MkIV, AI servo,

Even with the 1.4x TC AF tracking was fast and accurate, with a very slight loss in general IQ (if you pixel peep) and AF speed over the lens used without a TC. (note this was in bright daylight conditions with the 1.4x TC fitted, more on this later in the birding shoot) I could easily track a player running towards me, and 4 shots from a 5 shot burst (@ 10fps) would be sharply focussed. With the 1.4x TC

it dropped slightly to 3 from 5, still good going if one remember that players don't run at a constant speed, it's a rather erratic movement as the players brake, charge and side-step continuously. I feel this is a more demanding AF tracking exercise than birds in flight or motor sport where the speed of the subject is generally more constant.

Birding: The trip to Austen Robberts was a good indication of the capabilities of the lens in lower light conditions, and also a test of the OS panning mode 2. I also complicated things for the lens by using the 1.4x TC again, allowing only f4 in the low light conditions requiring flash for proper exposure. Thios also resulted in another OS capability test, using the immature Crowned Cranes as a test subject. A 100% crop shows the detail the lens is capable of delivering.

100% crop, 420mm, f4, 1/200, handheld, OS on, single shot

The AF was now noticeably slower in single shot mode, and track in AI Servo mode, but was not worse than my older version lens, so no negative experiences here. Have to admit it was a little slower to AF than my Canon 500 f4 L IS USM, used without a 1.4x TC for the sake of the f4 aperture. Moving away from the heavily shaded areas to the open water section, where light was still low but about 3 stops better, AF focus and tracking improved, but still felt slower than in bright conditions, and finally in the bright and clear conditions the performance from the rugby match returned, and tracking birds in flight (BIF) became a breeze, resulting in about a 90% keeper rate on sharpness when I played my part, as opposed to about 60% in the lower light conditions. This Egyptian Goose is number 4 of a 5 shot series only the last shot going slightly soft.

289mm, f4, 1/1600, OS mode 2 panning, monopod in belt pouch, fill flash,

Again, this is not bad, and about the same as I would get from my older version of the lens, and slightly lower than what I would expect from my 500/f4 lens with the 1.4x TC fitted for 700mm f5.6. The panning mode OS functionality performed very good indeed, easily helping to keep track of birds flying across the field of vision, no better or worse than the IS in panning mode on my Canon 500 f4 lens.

Findings

Sharpness – this is what counts, and for the money or even a bit more, it is an excellent lens, as good if not better (subjectively) than my older version lens. Subjectively I also feel that the new OS lens handles the 1.4x TC even better than my older first generation lens, which is already very good in this department.

General IQ – very good, with good colour rendition and pleasing bouquet. The 9 rounded blades in the diaphragm is said to help with this pleasing bouquet effect, a-la the press release from Sigma.

420mm, f4, 1/320, OS panning mode 2, monopod in beltpouch

OS functionality – this is definitely another strong point of this lens. The OS module is much more quiet than the IS module on my Canon 500/4, so much so that you strain to hear it (OK my hearing is not the absolute best, but still…) Full OS lock was ever so slightly slower to achieve than the IS on my Canon 500/4, but I did not time it to prove it was actually slower, I'm more subjective in my observation here. Its way faster and more functional that the older OS modules used on the Sigma 80-400 for instance, so a big improvement for Sigma on this front. Handholding the lens (despite its weight and bulk) is possible and this is where the new OS module comes into its own – it does indeed provide a four stop advantage. Handholding very sharp results at shutter speeds as slow as 1/50 @ 300mm was achieved, and from a monopod in my beltpouch , down to 1/80 sec @ 420mm.

Build quality – top notch, very sturdy, finish is good and should be hard wearing (the Zen-matt black finish on my first generation model is showing some scuff marks, but after 8 years of very heavy use its to be expected) I cannot see why the new OS model should not perform the same.

Value – still nothing out there from any manufacturer to rival this lens in its functionality. Having a 300mm f2.8 lens which can zoom back to 120mm f2.8 is a huge bonus, and using a 1.4x TC of professional quality will result in 168-420mm f4 lens, with OS, which is still a full stop faster than the equivalent Canon offering, and matching the Nikon in this class, still very sharp and with very good AF in good lighting conditions, but accept slower performance when the lights go down, which is to be expected really. It does cost more than Canon's closest equivalent (one can see why) and way less than the Nikon closest competitor, which is really in a different category, but not almost three times as much worth.

Summary – a truly fantastic lens, a very worthy successor to the first and second generation models, a lens which I would gladly own and use in my professional capacity without feeling I'm at a disadvantage. Yes I love it. I don't really want to hand back this test copy, it's with a heavy hart that I start repacking it into its sturdy neoprene/canvas type carry case.

Many thanks to the ODP Shop for making available the test copy.