

Sigma 150-600mm F5-6.3 DG OS HSM Sport

A hands-on field review – Part 2

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Introduction

In part 1 of this review I dealt with the general specifications, a comparison table with a similar lens from a main competitor, and the performance of the lens in a birding and wildlife environment.

In this Part 2 I will discuss my findings when using this lens in a sports environment, and more specifically cricket and motorsport, as well as my final conclusions. Reference to the results from the tests on birds and wildlife are made regularly in this review, please refer to Part 1 if required.

Cricket

As a fully accredited media photographer with Cricket South Africa, I decided to throw this lens in at the deep end and used it to cover the first test match between the South African Proteas team and the visiting West Indies played at Supersport Park in Centurion. As a rule I will use my 500mm f4 prime lens at cricket matches and then mostly with my 1.4x Extender fitted to achieve a 700mm f5.6 effective focal length (lets ignore the 1.3x crop factor from the body for now) so the 600mm f6.3 that I could achieve with the test lens will be good enough on reach when taking photos from higher up in the stands. When working lower down, closer to the field of play it can easily frame batsmen more than tight enough, and bowlers from a side-on view for that matter. More important was checking the ability of the lens to focus and track the running batsmen and bowlers in panning mode as well as head-on, and to check the image quality (IQ) of the lens at maximum zoom and aperture, especially after the results I got from the initial birding and wildlife sessions. After the first few morning hours I downloaded the photos onto my laptop, and was pleasantly surprised (and happy) to see that this

lens performed very good indeed when used wide open, confirming my initial assessment that there is no need to stop down 2/3 or a full stop to achieve better sharpness. The IQ was very good indeed, good colours, sharp and showing sufficient fine detail. A little light fall-off was noticeable in the corners of the frame, but I would not regard this as an issue; my Canon 500 f4 L IS also has some fall-off in the corners.

Being an f6.3 maximum aperture lens at 600mm, I always knew the speed of the AF will be slower than what I am used to from my Canon 500 f4 L IS lens. With cricket test matches played only in day-time with good light conditions it wasn't a problem to achieve a high enough shutter speed at a low ISO setting, but I have my reservations using this lens for night-time matches lit by floodlights. The 1.3 stop slower lens implies pushing the ISO and/or dropping the shutter speed to get to the typical 1/1000, f4, ISO 2000 setting I use for matches played under floodlights, which will push the camera's boundaries on high ISO noise and risk motion blur in faster moving subjects. More on this to follow as I was able to test this later during a One Day International played by the two national teams in a day-night format match.

The AF performance of the lens on the batsmen, who are really static subjects, was as good as can be expected, 90% and better with similar keeper rates and IQ than experienced with the birding and wildlife sessions. The panning shots of the bowlers were also very good, no real problems there. Fast lock-on with accurate tracking the hit-rate on these shots were very good, certainly better than 70% which is really good going for a lens in this price range of the market. Refer to the shot of master batsman Hashim Amla in action for the Proteas, who scored a double century in this match.

I did however noticed the same considerable drop in keeper rate when shooting the bowlers running head-on towards the camera, more so than when using my (admittedly) professional prime Canon 500mm f4 L-series lens. Also the closer I was to the bowlers, the lower the keeper rate would drop. Bowlers at more of a distance, such as Morne Morkel in the bowling action shot, yielded more acceptable results, around 50-60%, which is not spectacular, but workable.

For the closer to camera head-on bowling shots the keeper rate dropped to below 40% on pin-sharp images, confirming the results from the first birding tests where it also offered the same and lower keeper rate on fast flying birds head-on towards the camera. Refer to Part 1 for the results from the birding tests.

The focus accuracy was still good when used under the floodlights, but the 1.3 stops drop in exposure from my usual f4 lens which requires ISO 1600 to reach 1/1000, means that the ISO needs to be pushed too high to achieve the proper shutter speed at f6.3. Yes it can be done and can be used under these conditions, but expect a drop in image quality after serious noise reduction is applied to images. Obviously different manufacturers with various models on offer will have varying degrees of digital noise at high ISO settings, with the professional camera bodies doing a better job at handling higher ISO settings. The user will have to decide what is acceptable to him.

600mm, f6.3, 1/1000, ISO 400, monopod

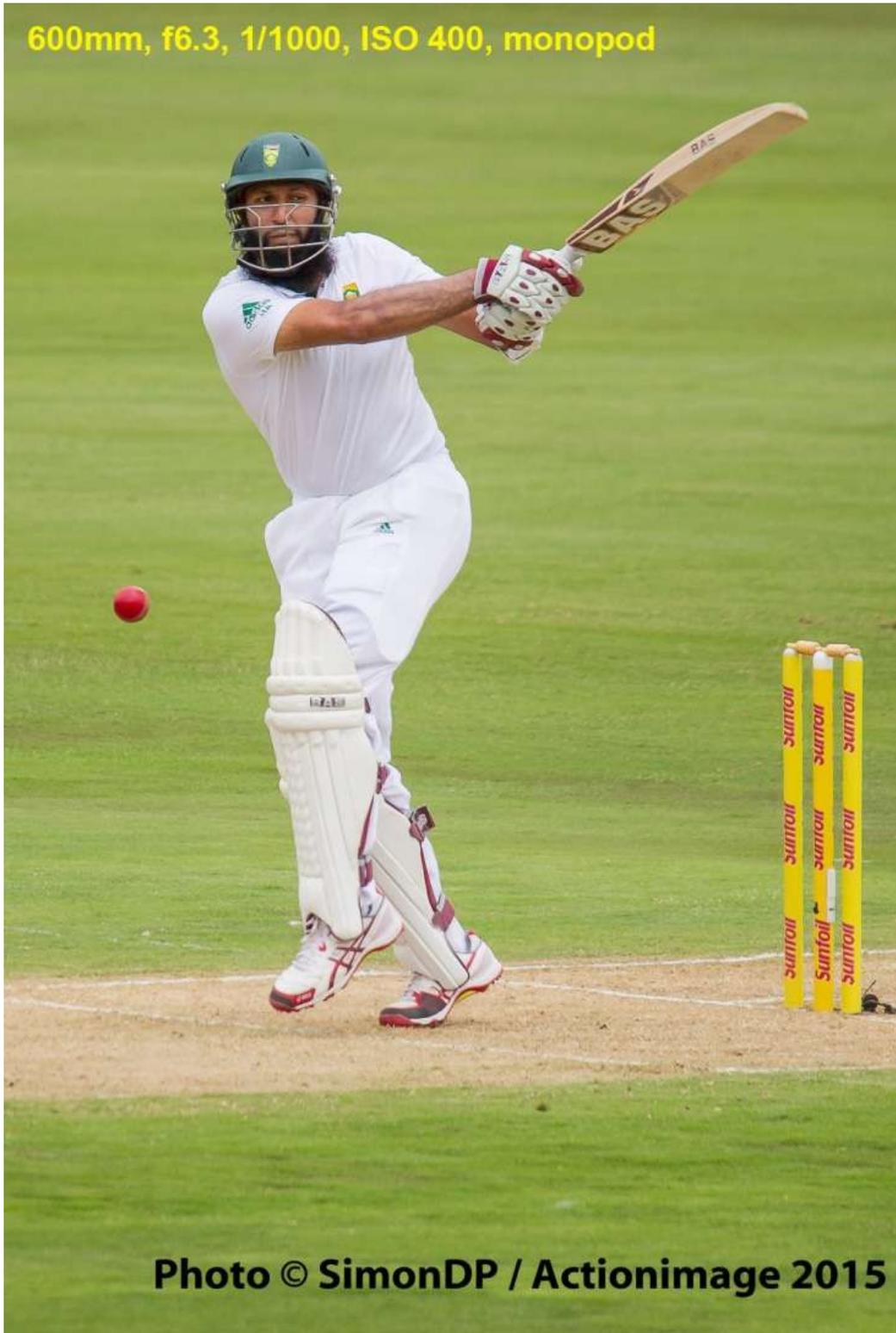


Photo © SimonDP / Actionimage 2015

Hashim Amla

600mm, f6.3, 1/1250, ISO 400, monopod

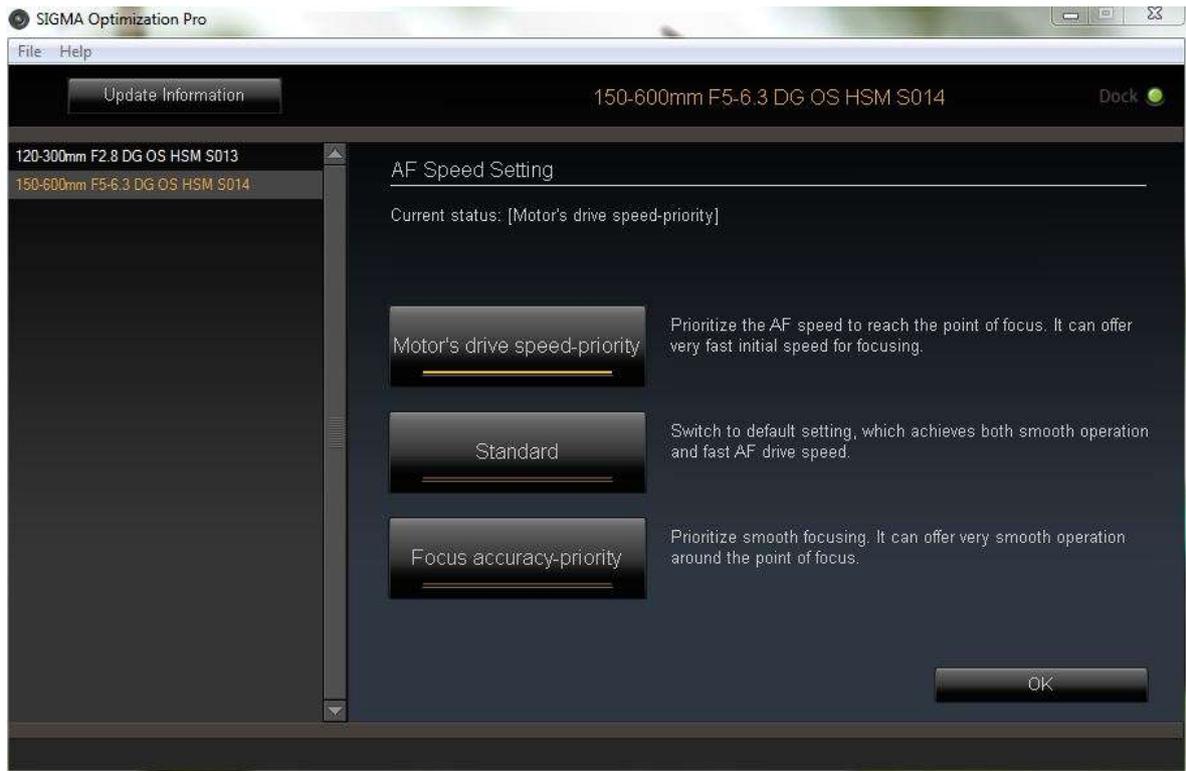


Photo © SimonDP / Actionimage 2015

Morne Morkel (head-on at distance, normal AF setting)

USB Dock Custom AF Setting

Only after the first cricket test session discussed in the next section did I have the opportunity to go back to the USB dock and the Sigma software, where I adjusted the AF Speed Setting to prioritise the AF drive motor to achieve fast initial focus, and saved it as C1 on the lens with the intention to test it later on a follow-up birding and cricket test sessions. Refer to the screen capture from the Sigma Optimization Pro software.



Setting used on Sigma Optimisation Pro software

In general I found the USB Dock and software very easy and intuitive to use. One does have to be connected to the internet for the automatic check on firmware updates, but once done you can just close those request screens and move to the customization screen. After changing and setting those parameters you wish to change, remember to write the settings to the lens by clicking the "Rewriting" button.

Follow-up testing: Birding and Cricket

In the follow-up heads-on and panning birds in flight tests the results were quite encouraging when using the Custom C1 setting. In good light the pick-up and tracking was more positive and resulted in an increased keeper rate, up from about 30-35% to about 50% as the flyby from a Sacred Ibis offered 3 of 6 frames really sharp. Now this may not seem like much but in reality it is better than can be expected from a lens in this class, so in my book really good going. In the low lighting, shadowy areas pick was still slower and tracking less secure, offering about 40% keeper rate, overall also a

good showing for an f6.3 lens. You will need to pay three to four times more for a lens to get better than 60% in low light conditions. One also has to remember that this test is done on really fast flying birds, approaching the camera head-on or at an angle, and the closer they get to the camera, the more difficult the tracking will be on those fast moving subjects. Birds in flight are a much more stringent test than racing cars.

On the second cricket session using the adjusted AF setting as discussed in the section on the birding and wildlife test sessions, the lens performed as I hoped it would. I only did some closer distance head-on bowling shots, tracking the fast bowlers running straight towards the camera, and a confirmation check on panning bowlers in action.

I am happy to report that the keeper rate improved dramatically, from around 35-40 % to about 70% and maybe more, with a slight improvement in panning sharpness keeper rate as well. See the photo of West Indies strike bowler Sheldon Cottrell in action. This was really good news to me, as the "Sport" designation of the lens really started to make sense to me now. Already I was getting excited with the planned motorsport tests to follow in a few days' time.



Sacred Ibis flyby (Custom AF setting with USB Dock)

600mm, f6.3, 1/640, ISO 800, monopod, AF custom C1



Photo © SimonDP / Actionimage 2015

Sheldon Cottrell (Custom AF setting with USB Dock)

Motorsport.

The 2015 Passion for Speed International Historic Racing Event was held at Zwartkops International Raceway and was the perfect motorsport proving ground for the 150-600 Sport. A good mix of fast cars and motorcycles raced on the day.

All the shots at that event were taken with the Custom Selector Switch of the lens on the C1 setting as described in the section on USB Dock Custom AF Setting above.

In all aspects the 150-600 Sport performed very well indeed for a lens in this class, easily panning the cars and motorcycles at slow shutter speed, or catching them head-on with accurate tracking, or at $\frac{3}{4}$ angle into corners. In all the keeper rate was very good, close to 75 % on sharpness excluding those shots where the operator's brain left him in the gutter.

Panning at slower shutter speed using the OS in mode 2 yielded the photo of Ron Liddard's #51 Ford Lotus dating from 1968, both frames in the series sharply focussed.



Slower shutter speed panning

Tracking the 1970 Chev Camaro head-on coming down the straight and braking into the right-hander yielded 3 out of 5 shots pin sharp, with one just a tad off but still usable. One shot failed to make the grade. Remembering that this is a difficult environment, approaching at 130kph and braking to about 60kph in a short space of time is a difficult scenario for any camera and lens combo; I feel the lens handled it very well.

Another more difficult scene is the $\frac{3}{4}$ approach into a corner, where the lens delivered a 70% keeper rate on both cars and motorcycles. The Suzuki GSX 1000 sweeping into a right-hander was captured with the camera and lens on a monopod, OS mode 2 for panning and delivered 3 of 4 frames pin sharp.



Head-on tracking with Chev Camaro



$\frac{3}{4}$ Tracking

I also handheld the lens for a while, covering a few laps that way and did not feel like having had a workout afterwards. As with the birding, handholding at higher shutter speeds and using the OS for a safety margin on camera shake remains a real possibility.

Conclusion

The Sigma 150-600mm f5-6.3 DG OS HSM Sport lens is a very welcome addition to the market, offering the serious photographer better AF and IQ performance than other super tele-zoom lenses in this category, and getting closer to true professional performance offered by lenses costing three or four times as much as this one.

Well made, sufficiently fast auto focus especially with custom set-up through the optional USB Dock, good optical quality even at maximum zoom and aperture and with a very handy zoom range it offers value for money. I consider it worthy of the extra price tag it carries over other lens models of similar focal length.

This lens is ideally suited for the enthusiastic sports and the wildlife photographer who expects more from his equipment but cannot justify the expense in purchasing a top of the range prime lens or tele-zoom lens. In all a class-leading lens from Sigma.

Many thanks to TudorTech (+27 11 803 2226) for arranging and making available the test lens and USB Dock.