

# Canon EF 100-400 f4.5-5.6 L IS USM Mk II

## First Impressions

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### Introduction

Rumours about the overdue replacement for the Canon EF 100-400 f4.5-5.6 L lens have been doing the rounds for quite a while, with questions aplenty posted in the social media and on photographic forums, usually pertaining to the liked by some and hated by others push – pull zoom action, wishing for a faster auto focus (AF) capability, increased sharpness at maximum zoom with wide open aperture, some also hoping it will show better response to fitting an extender, etc. With the release of this lens those questions were mostly answered, and in the hands of the early buyers and the reviewers it started to prove its mettle. I for one was happy when my review copy arrived, and even though I had the lens for a very limited time only, I could still determine what it is capable of, and how it stacks up against the competition in this class.

### Specifications

The technical specifications and features are well known by now, but some of the most important ones are briefly discussed here.

Zoom action: Gone is the push-pull zoom, instead replaced by the more regular twist zoom action.

Mass: Is up by approximately 200g from the Mk 1 version, really not so much that one will notice. I still found it easy to handhold at moderate shutter speeds, definitely assisted by the very good IS system.

Size: Overall very similar in size to the outgoing model, a couple of mm longer and thicker, again the difference is so slight it is basically negligible



**Photo 1: Lens Controls**

Refer to Photo 1: Lens Controls, for the discussion below.

Focus Limiter Switch: Options to select either the full distance range or only from 3m – Infinity are provided.

Focus mode switch AF/MF: Offers the standard auto focus and manual focus modes. A ring type ultra-sonic focus motor combined with a high speed processor makes for a fast and quiet autofocus function.

Image Stabiliser (IS) ON/OFF switch: switching the IS function on or off.

Image Stabiliser Mode selector: Canon's latest generation IS system allows for three settings:

Mode 1: Normal IS in both horizontal and vertical planes

Mode 2: Panning mode – IS in the vertical plane only

Mode 3: “Exposure mode” IS (my term) – apparently aimed at the sports and action photographer where the IS is only activated on full press of the shutter button. The “image jump” tendency (which can be quite disconcerting when following fast paced action through the viewfinder), is minimised by this setting. During my testing it found it a nice feature, image jump was definitely more evident in mode 2.

Just in front of the MF ring Canon has provided a twist operation zoom tensioning ring, marked “Smooth” and “Tight” which operates like a type of zoom lock although not fully locking the zoom, but rather tightening it up considerably to completely prevent zoom creep.

A sturdy tripod mounting collar is supplied which allows the lens to rotate easily to the desired orientation. The lens tightens securely in the collar with the familiar twist knob.

The lens takes the standard 77mm diameter screw-on filters. The front element of the lens does not rotate during focussing, so easy use of polarising (PL) filters is assured. Even more so with the little access hatch that Canon has thoughtfully provided in the lens hood, sliding the access panel towards the front of the lens opens up a small access hatch through which a PL filter can easily be adjusted. No more struggling in from the front, underneath the lens hood to adjust PL filters. Refer photo 2 below.



**Photo 2: PL Filter Access Panel (shown opened halfway)**

## **In the hand**

Longer lenses unfortunately tend to be categorised as heavy lenses too and it for this reason that I make use of a monopod when using these lenses. It adds stability, and takes the strain off the arm, neck and shoulder muscles which also contribute to less camera shake. This lens is no true lightweight, but also not too heavy. I did find it easy enough to handhold, and assisted by the very good IS system the lens can actually be used handheld with ease for shorter sessions. The slight of build photographer might not agree with me on this, but each one will quickly determine what his own capabilities are when using the lens.

## **Performance**

When I started the first tests, I did a quick test to confirm that the lens had no front or back focus issues on my EOS 1D Mk IV. The calibration was perfect. Then I followed that up with a few shots to determine basic sharpness at maximum zoom and f5.6. Followed all that up with the one test many wanted to know the results of, the effect on the AF and image quality (IQ) of the lens when using a 1.4x Extender.

Using a monopod for support and the IS in mode 2, I took some shots of a Yellow-billed Duck on a pond. Cropping the photo to 100% so only the head remains in the frame, and presented here as photo 3. The quality and detail in the photo is still very good, with the AF functioning fast and accurate. To my mind it performs considerably better with the 1.4x Extender than the older model did. Yes one can see the AF working a little slower, more so when focussing in lower light or shady areas, but it remained accurate and good enough for static or slower moving subjects.

The difference when attempting to track faster moving subjects such as birds in flight (BiF) moving towards the camera was more pronounced with a drop in keeper rate when using the 1.4x Extender. However it was still good enough to warrant the use of the extender for those wanting extra reach and willing to live with a higher reject rate and who cannot justify the expense of a longer and faster lens. On panning shots I can honestly say I did not notice a real influence in focus and tracking accuracy. But as mentioned I had limited time with the lens so couldn't really test it under varying conditions. An Egyptian Goose was easily kept sharp in the frame for a 5 shot series, (see photo 4) one shot only going slightly soft, not using the IS but mounted on a monopod. I experienced similar results with a Sacred Ibis on a fly by.

Fortunately for me, the cricket season is not yet over and so the lens also had a quick visit to a Titans match, one of the Sunfoil series 4-day matches played at Supersport Park. I used the 1.4x Extender again for this test, really needing the extra reach it offered for a long-distance game such as cricket. Conditions ranged from partly cloudy to cloudy, but the AF remained fast enough to track the batsmen as they ran between the wickets, easily keeping them sharply focussed. Admittedly with the 1.4x Extender it will not be the ideal kit to use at a night match, f8 being too slow and requiring higher ISO settings than one would feel comfortable with for noise free images, but it can be used in a pinch. Certainly in good lighting conditions the lens will perform well enough for most. See photo 5.



Photo 3: 100% crop on Yellow-billed Duck, 1.4x Extender used



Photo 4: Egyptian Goose, panning, monopod



**Photo 5: 1.4x Extender, monopod, cloudy.**

### **Conclusion**

The Canon EF 100-400 f4.5-5.6 L IS USM Mk II is a very welcome addition to the market, and slots neatly into a hotly contested zoom range. Well made, fast auto focus, crisp and clear optical quality, sufficiently fast maximum aperture, up to four stops IS capability and a very handy zoom range is a true recipe for success. It is a lens which is ideally suited for the casual and more serious sports and wildlife photographer. Canon is offering a really nice versatile lens which I believe, just like the outgoing model, will be a hot seller on the market.

Many thanks to Canon SA for arranging and making available the review lens.