

# NIKKOR 70-200/2.8 AF-S VR

## SHOOTING LONG ON THE HIGH SEAS

Nikon's 70-200/2.8G AF-S ED IF VR Nikkor is the latest version of their professional mid-range tele zooms. As the successor to the famed 80-200 AF-S, this Japanese-built gem in the Nikkor lineup reflects Nikon's modern design, it lacks an aperture ring and is therefore not fully compatible with Nikon FM-series or older Nikon cameras.

### Handling and Build Quality

Weighing in at just over three pounds, the 70-200 VR brings with it an impression of unbelievable quality. The focus ring flares into two different diameters and feels very well dampened. The zoom ring is closest to the camera and is equally smooth and easy to rotate. The three focus lock buttons are located just aft of the lens hood mount and fall under your fingertips naturally. Slide switches control **Manual** or **Manual/Auto AF**, **Full/2.5m>Infinity**, **VR On/Off**, and **Normal/Active VR** mode selections.

Build quality is at Nikon's highest level with an all-metal lens that is a pure joy to use. The 70-200 VR tripod collar and removable foot is a welcome revision - sturdy and well designed. The lengthy tulip-shaped lens hood locks into position and adds 10cm to the overall length. Moisture seals and a rubber dust ring surrounding the mounting flange add protection to the 70-200 VR during outdoor shooting.

### Optical Performance

At 180mm and f2.8, the 70-200 VR is not as sharp as Nikon's much older 180/2.8 AI-S ED lens, but the 70-200 VR is much better corrected for chromatic aberrations. You will hardly find any color fringing in its images. Unsharp areas are rendered with creamy softness and without hard edges. The bokeh of the lens is just wonderful, especially at 200mm, and it can only be compared to the Nikkor AF 85 f1.4D. With Nikon's TC14E II 1.4X teleconverter, the lens can be converted to a 147-420/4 DX optic. (The TC17E teleconverter noticeably deteriorates image quality.



VR Elements  
ED Glass Elements

### SPECIFICATIONS

Construction: 21 elements in 15 groups w/5 ED elements  
Focus: AF-S (internal Silent Wave Motor)  
4.6' (1.4m) manual, 4.9' (1.5m) autofocus  
Length/Weight: 215mm, 49.2 ounces (1395g)  
Focus Locks & AF Range Limiter Focus Filter size: 77mm



**Emotion** People coping with stress or experiencing success are what makes a sports photograph so impressive. Isolating these moments is done in a matter of seconds.

At 200mm and f2.8, most people find the 70-200 VR a tad too soft. I am very happy with the centre resolution at 200mm, but for resolution critical applications I usually go to f4. The details of subjects is there but the pixel-level sharpness could be better. The lens is extremely well corrected for chromatic aberrations, however, and that makes up for some slight soft veil that can be seen at f2.8.

On a 35mm or FX body, something comes back that is nearly nonexistent with APS DSLR sensors: light falloff! At wide open with the Nikon F5, the lens shows pronounced light fall off. Its nearly gone by f5.6 but, especially at dawn and when shooting birds, light fall off wide open can be problematic. Post processing can help here with many imaging applications that can correct JPGs or TIFFs as well as scanned slides. Using the latest DSLRs, the issue is easily corrected with RAW processor software.

### Autofocus Performance

In fast-paced sport photography, its AF-S performance becomes obvious. These examples of shooting sailing events are from a dinghy with the 70-200 VR and 300/4 AF-S mounted on Nikon's F5 and D2x pro bodies.

Focusing performance of this lens cannot be covered without a focus 'mode' discussion. The performance of the lens autofocus is directly tied to the **AF Area Mode** that is selected. Nikon D200, D300, D700 and D3 DSLRs offer a choice between *Single Area AF*, *Dynamic AF with Focus Tracking and Lock-On*, and *Closest Subject Priority Dynamic AF*. The choice you make

can be combined with Lens Servo modes. The **Servo Mode** options are: *Single Servo AF* and *Continuous Servo AF*. For sport with the 70-200 VR you will very likely want to use the *Continuous Servo Mode* because most of the time your subject is moving continuously.

With the **AF Area Modes** the story gets more complex. In fact I find myself often switching between *Group Dynamic* and *Dynamic AF with Focus Tracking*. This is purely subjective and specific for what I do when photographing sailing sports and obviously your mileage may vary here - even if you also shoot sailing. something that I don't find too useful is the *Closest Subject Priority Dynamic AF*. That's mainly because with the 70-200 the focus will very quickly change towards a subjects where you don't necessarily want the focus to be at this moment. The control over your AF Focus Area should be as high as possible with this lens, even in an action loaded situation.

One of the custom settings that is often underrated on these DSLRs is **A4: Lock-On**. The key idea of the A4 setting is to manipulate the Lock-



**Compression** Compressing the distance between boats is an effective telephoto technique with regatta sailing events. The reduced gap between the sailors creates a more dramatic impression of competition.

cover that the basic problem is to keep a focus area stable on a specific subject. If you failed to keep the focus area on your subject your focus point will quickly shift away and you will have to try to regain a focus-lock situation. The key to success with the 70-200 VR and fast moving boats or sailors is to keep your focus area positioned. In these situations I find the focus lock buttons of the lens of no use at all as this functionality is for static subjects.

### Vibration Reduction

Vibration Reduction (VR) works beautifully on this lens. Sharp shots are possible even at 1/8th second exposures, but more than one try is usually needed to be on the safe side. The technique to handhold the lens is very important with VR and low shutter speeds. The stabilization is very visible when looking through the viewfinder. The image appears to freeze sometimes when VR has really locked in the scene.

**Composition** Crossing rig structures (in close hauled situations) create very dynamic image compositions. The right moment is key to a good overlap of the boats. Start a quick burst of shots when the boats start their overlap.



However, there seems to be a "warmup" that is needed for VR to really eliminate the effects of camera movement. If VR is active, a clicking sound followed by a sliding sound can be heard.



**Normal VR** is most effective for single axis motion cancellation in handheld situations where the usual amount of handheld movement is expected.

**Active VR** is useful for x-y movements, like shooting from a boat or automobile where the camera/lens movement is much more erratic. In fact, one worst case situation is shooting from a boat that is bumping through the waves. Here the Active VR setting keeps the picture in your viewfinder much more controlled. There is a certain lag that makes looking through the viewfinder somehow feel 'sticky' in these situations. This can help, but well composed sharp pictures are difficult to create under these circumstances.

With the VR advantage, it is much easier to use the lens at its sharpest aperture - around f5.6 - and vary shutter speeds or ISO settings for flexible handheld shooting.

### Bokeh

This lens shows wonderfully smooth and creamy backgrounds, with out-of-focus (OOF) circles of confusion that are just short of the Nikon AF D 85/1.4 standard of quality. Slightly stopped down, the lens shows nearly perfect round OOF confusion circles with a slight ring type of edge effect when the lens is stopped down (not visible wide open). You will rarely be disappointed in practical shooting situations but if the OOF circles are part of your creative concept then this might be an issue. OOF circles also very much depend on the type of light point source you are using. There is a minimal appearance of polygon shapes in some of the circles.



### Mechanical Performance

Focusing as close as 4.9' (1.5m) with AF-S, this lens is Nikon's state-of-the-art pro glass at its lowest cost. The 70-200 VR is one of three pro zooms in the under-\$2000 range, making these optics a performance bargain. No problems with seagulls and running kids. Racing events, rodeo, and the local soccer team are all fair game for this premium zoom. Even very close range moving objects can be tracked in a continuous fashion that is exciting. You can easily hear the AF-S system functioning while its high frequency updates focus with a very silent rattling sound. This works especially well when a linear movement is tracked. All these bells come at a price, though. This lens needs power! When using an older DSLR body, you'll very quickly run out of juice with this lens. I recommend spares or a battery grip for day-long operation in the field.

### Technique: It's All About Distance and Position

As for all kind of sports, you should get as close as possible

to the action. For sailing this obviously includes being on a boat that can move as quickly as the crowd of sailing boats. Usually regatta sailing takes place with three buoys that are placed in a shape of a triangle with one side of the triangle exactly against the wind and two others that are sailed with the wind from the side or from behind (obviously). The shape of the race course has some implications on where to position yourself when the race starts. Usually you start the photo session positioning yourself left or right of the starting line and about 10 meters in front of this line.

When the race starts, most of the boats will sail on their port-side. Here, the 70-200 VR is the best choice. You can zoom out to 70mm to capture the whole starting line and then zoom in to 200mm for detailed shots of individual sailors before they tack to starboard. When the boats have passed you will want to position yourself at Buoy No. 1, which is

directly windward. So you move at full throttle towards the first position where you can photograph the sailors sailing close to the wind. These are shots where you might need more than 200mm. Using a 300mm or longer focal length for even more reach gives the best subject density effect and can freeze the action effectively by blurring the background. Using an additional

camera body is advised because one hardly has time to swap lenses. These are the shots that should show the action isolated in front of a perfect blurred background. **IP**

### Shooting Strategy

Technique and camera setup are keys to a successful shoot of all moving subjects. Here's our checklist:

**Camera** - 1/1000th or higher - f2.8 - f4 apertures

**Settings** - Auto ISO set ON - VR Normal or Active

**Autofocus** AF-C with Lock-On for effective tracking

**VR** Normal or Active depending on wind and waves

**Close-Hauled Shots** Tight composition / focus on faces

**Image Bursts** 3-6 image sequences at peak of action

**Composition** Let the boat "enter" your frame - start shooting when the composition is close to being at its best. Good compositions contain some space in front of the sailing boat (the movement direction should not be "stopped" by an "end of frame" effect).

**Pre-visualize** Determine where action will take place and capture the moment of maximum stress, frustration, concentration, or tension. Concentrate on a specific moment and on a specific detail.



### Position

Part of the race where the main spinnaker is pulled back into the boat. These are the most colourful shots that can be done. Best strategy here: wait until the spinnaker creates wild movements or is afoul.



### Strategy

A shot from the windward buoys with a top speed situation (Korsar class). If planned precisely and if there is some wind one gets very dramatic shots here.



### Timing

Capsizing boats are not unusual in these situations. So here most of the action can be captured. As things go fast in these situations a good composition is difficult here. Usually one concentrates on the right moment and focus is kept on the sailors body or face.

Sören Hese was born in Berlin, Germany and has been a photographer since 1989. His concentration is on nature and water sports photography and he specialises in regatta sailing events. As an active regatta sailor with racing experience on various dinghy classes, he understands the perspective of the helmsman.

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**Starting Line** Shooting at 70mm will capture this action. If one gets very close, a wide angle lens on a second body can capture an interesting perspective for this part of the race.



**Details** A shot from a TRIAS regatta event. With tele shooting looking for details is always important. Tele lenses can isolate compositionally interesting structures and objects.



(left) **Frontals** This classic frontal shot isn't a perfect composition as we need more space on the left side of the image. So, the right moment is important - you'll want some flying water with focus on the sailors' faces (Korsar regatta event).

(below) **Windward!** A shot from the windward buoys at top speed (Korsar class - between Buoys No. 1 and 2). If planned precisely and there is some wind, very dramatic shots with potentially capsizing boats towards the lee side are possible. Stay alert!



(above) **Background** A shooting situation from Buoy No.1 when the sailer approach the first race mark after tacking for a while. In the next seconds the team will set their spinnaker. So after this shot being prepared for the action of the helmsmen pulling out the new sail is advised.



(right) **Peak Action** Shot between Buoys No. 1 and 2, another top speed sailing situation. Get the action when there is as much water in the air as possible. Fire a bursts of 4-6 shots if you can focus on the faces of the sailors. Physically and technically, this part of the race is very hard for the helmsman so concentrating on the faces of the helmsmen could be rewarding here.

