

2 NEW NIKON AF LENSES



The 180mm f/2.8 AF and 300mm

f/2.8 AF make the impossible possible

By Jack & Sue Drafaht

Of all the autofocus lenses we've tested for Nikon's N2020 camera, the two newest lenses best demonstrate its unique autofocus qualities. The Nikon ED Nikkor 180 and 300mm f/2.8 Autofocus lenses are similar in design to their manual predecessors, except that their autofocus capability makes them a long-lens lover's dream come true.

ED NIKKOR 180mm f/2.8 AF

The 180mm f/2.8 is an amazingly compact lens, considering its fast speed. On the back of the lens are the five electronic contacts and autofocus coupling device. These contacts allow camera and lens to communicate with each other for correct autofocus operation.

Next to the f-stop ring is the standard minimum aperture lock found on all of Nikon's new autofocus lenses. This lock allows the N2020 camera to select any f-stop when the camera is in the program mode.

The controls on the top are fairly simple and easy to understand. At the front of the lens is the sealed focus window containing the feet/meter display. Also at the very front is a built-in telescopic lens hood to help reduce flare. Of the eight elements found inside, one is made of the special ED glass that helps create the high resolution pictures taken with this lens.

After a variety of field tests with moving and stationary subjects, we discov-

ered three very important features. First, sharpness from center to edge is the best anyone could ever hope for. Second, sharp autofocus from five feet to infinity can be achieved in less than one second. This fact and the speed of the lens allow the photographer the ability to easily handhold it, even at low shutter speeds. Panning with the camera and lens set on continuous autofocus allows sharp focus even as the subject moves near and far away. Color reproduction and contrast resemble the best normal focal length lenses.

ED NIKKOR 300mm f/2.8 AF

When one thinks of a 300mm lens one usually assumes there will be some loss of sharpness and speed, and unevenness of image illumination. With the new Nikon ED 300mm f/2.8 autofocus lens the opposite is true. This lens is in a class all by itself. The controls found on its back include the minimum aperture lock, the f-stop scale from f/2.8 to f/22, the five electrical contacts, and the AF coupling device. Directly in front of the aperture ring, a special filter holder device is locked into the lens. A slight push down and a turn counterclockwise will release the holder, so that it can be removed for a filter change. Circular gels or 39mm filters can then be inserted into the lens. Two lens straps are located in front of the filter holder to support the bulk of the lens and camera together. Use these

straps, rather than the strap on the camera body, as it seems to cause too much stress on the lens mount.

Three controls are located just in front of the lens straps. The first control is a manual/auto ring that allows the photographer to select auto or manual focus control. This control is very stiff and not easy to move, thus preventing accidental movement to the wrong position.

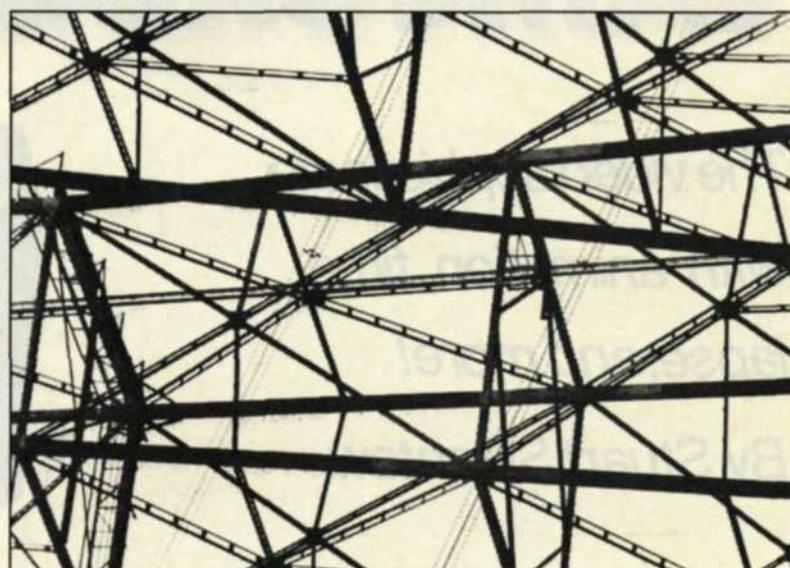
The other two controls are preset distance locks. If you want to restrict the distance of autofocus operation, you can lock in a minimum and maximum focus distance. For example, suppose you are focusing on race cars at a point 150 feet and 75 feet. Set one lock at 75 feet and the other at 150 feet and the autofocus will stop at each distance, thus saving time in focus. This prevents the lens from scanning from infinity to minimum focus distance if the autofocus system somehow misses the subject.

A focus window is placed just in front of these controls, displaying both feet and meters. You will notice that the lens actually focuses beyond the infinity mark. This allows for focus shift due to heat and cold. The last control ring is for the photographer who uses the manual position of the lens and wants to have a click stop for that exact focus point.

The lens hood is of the type that reverses and locks on the lens backwards for storage in the specially designed lens case. This case is called a CT-303 case



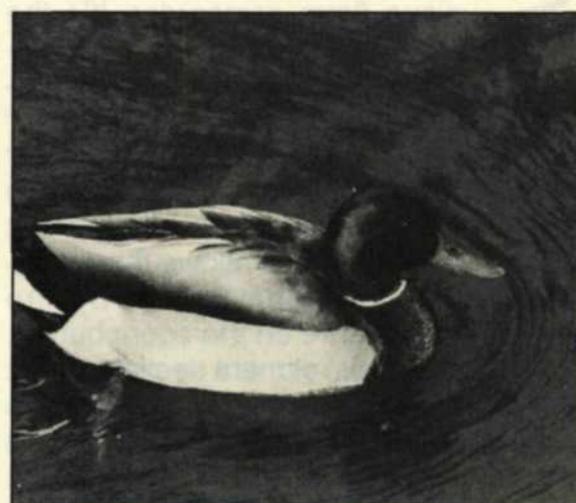
300mm



300mm



180mm



180mm

ALL PHOTOS BY AUTHORS

and can hold the lens, N2020 camera, a dozen rolls of film, the filter holder, and a couple of small normal or wide-angle lenses. Just think, all this can be stored in a lens case!

Inside the lens are eight elements in six groups. Two of the elements are Nikon's special ED glass which makes this lens so special. A glass lens dust cover is attached to the front of the lens, to protect these precious lens elements.

Field testing this lens proved that the impossible is possible. This lens is the essence of quality. Not only does the lens follow focus extremely fast, but with sharpness that would impress the most critical photographer. All the tests were handheld, and it was not uncommon to get 36 out of 36 frames in focus, even though we photographed many moving objects.

The TC-16 autofocus tele-converter also works well with the lens and provides that extra focal length (approximately 500mm) when necessary. If you use the TC-16, you must set the lens to manual and coarse-focus, as the TC-16 has a limited range in which it can work. We preferred the program mode on the camera when using this lens, so that more concentration on framing and focus could be achieved. The resulting photos in this mode were excellent considering depth of field and subject movement. After testing the lens for one month we did run into one major problem. How can we settle for anything less when we know lenses like these exist? Sorry Nikon, but it looks like we are going to need to keep the lenses *several* more months in order to verify our test results!

SPECIFICATIONS

LENS: AF Nikkor 180mm f/2.8
 CONSTRUCTION: 8 elements in 6 groups
 APERTURE RANGE: f/2.8-22
 ANGLE OF VIEW: 13°40'
 MIN. FOCUSING DISTANCE: 5 ft. (1.5m)
 EXPOSURE MEASUREMENT: Full-aperture with AI cameras; stop-down with non-AI cameras
 ACCESSORY SIZE: 72mm
 OVERALL LENGTH: 6.02 in. (153mm)
 MAX. DIAMETER: 3.09 in. (78.5mm)
 WEIGHT: 26.4 oz. (750g)
 LIST PRICE: \$770

LENS: AF Nikkor 300mm f/2.8
 CONSTRUCTION: 8 elements in 6 groups
 APERTURE RANGE: f/2.8-22
 ANGLE OF VIEW: 8°10'
 MIN. FOCUSING DISTANCE: 10 ft. (3m)
 EXPOSURE MEASUREMENT: Full-aperture with AI cameras; stop-down with non-AI cameras
 ACCESSORY SIZE: Slip-in glass filter holder accepts 39mm screw-in filters; gelatin filter holder accepts gels
 OVERALL LENGTH: 10.35 in. (263mm)
 MAX. DIAMETER: 5.24 in. (133mm)
 WEIGHT: 5.95 lbs. (2700g)
 LIST PRICE: \$3695
 DISTRIBUTOR: Nikon Inc., 623 Stewart Ave., Garden City, NY 11530