

by Jack and Sue Drafaahl

In January, Nikon unveiled the world's first 35mm underwater single-lens-reflex camera—the Nikonos RS. This new camera is the product of over 30 years of design know-how, and represents the most significant advancement in underwater photography since the Calypso was introduced in 1959.

The Nikonos-V remains the standard for underwater photography and the heart of the Nikonos system, but the reflex viewing of the Nikonos RS offers underwater photographers a new dimension in underwater photography. It's smaller and more compact than any housed SLR, and allows photographers to leave their land cameras topside.

#### REFLEX VIEWING

The key to the whole Nikonos RS system is its reflex viewing. Underwater photographers no longer have to imagine what the final image will look like.

# NIKONOS RS

The reflex viewing system allows the photographer to compose and focus each frame of film. This is vitally important for capturing fish on film. These elusive critters are hard to frame and focus on, as they tend to move around a lot. With the RS system's large, high-eyepoint Action Finder, the photographer can easily frame and autofocus on any moving object.

The finder employs a fixed Nikon B-type BriteView focusing screen, so critical focusing under extremely low light conditions is now possible. Viewing is comfortable because of the 60mm high-eyepoint relief and 9° offset angle, which allows the full image area to be viewed with the camera held away from the facemask. Bright LCD readouts in the finder display in/out of focus, exposure mode, film-speed setting, exposure compensation, and flash status.

#### AUTOFOCUS

The Nikonos RS uses the same AM200 autofocus module found in other Nikon top-of-the-line SLR cameras. The AF system is very fast, and can fo-

## An Underwater AF SLR Camera with Interchangeable Lenses and TTL Flash



cus on subjects that move or swim constantly. It's very reliable in low light, and works in levels down to EV -1.

In Single-Servo autofocus, the photographer presses the shutter button halfway until optimum focus is achieved. The focus will stay locked at this point until the shutter button is fully depressed. This function is ideal for photos where the primary subject is way off-center. Just position the subject in the center of the viewfinder, press down halfway on the shutter button, confirm focus, pan to the correct composition, and depress the shutter button fully.

In Continuous-Servo AF mode, the camera will continually adjust the focus as long as the shutter button is partially depressed, to compensate for objects that are constantly changing position.

Automatic Focus Tracking works in both Single-Servo and Continuous-Servo modes. The camera electronically determines the rate at which the subject is moving, computes its position at the moment of exposure, and adjusts the focus to that point.

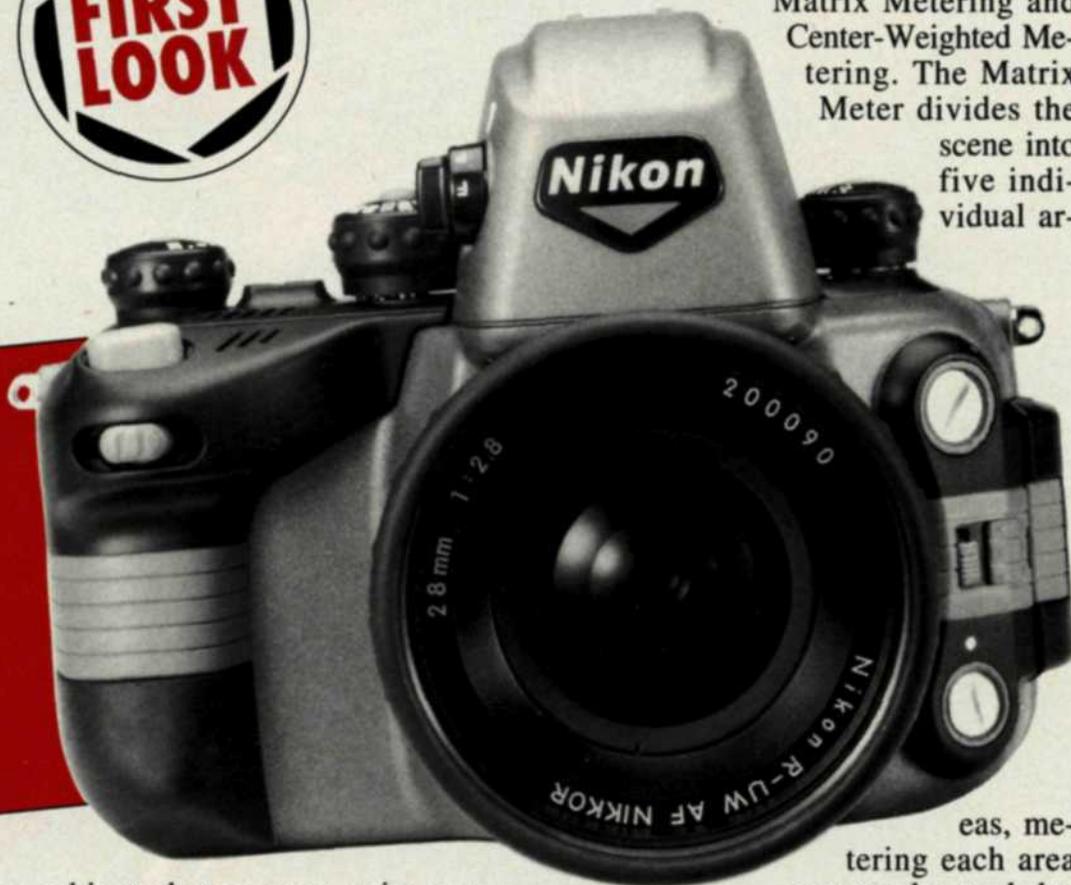
Freeze Focus mode is ideal for situations in which the subject is very sensi-

tive to intruders. In this mode, the camera is set to manual focus and pre-focused at a specific distance. When the animal moves into the focus plane, the shutter will fire.

Manual focus is accomplished with the Power Manual Focus control, a lever that moves the lens elements electrically. The focus indicator light in the viewfinder confirms proper focus.

#### EXPOSURE CONTROLS

The Nikonos RS incorporates both Matrix Metering and Center-Weighted Metering. The Matrix Meter divides the scene into five individual ar-



reas, metering each area separately, and derives the best overall exposure for the scene. This is especially useful for extremely complex lighting situations, where time would be better spent composing the picture than calculating exposure. The Center-Weighted Metering system concentrates 75% of its sensitivity to the 12mm center spot in the middle of the viewfinder.

#### ADDITIONAL FEATURES

The Nikonos RS reads DX codes on the film and automatically sets the correct ISO film speed. If the film does not have a DX code, the photographer can set the ISO manually. The motor-drive system advances the film from frame to frame when the shutter is depressed, and there is an auto rewind feature, as well. The RS is powered by one 6V CR-P2 lithium battery pack.

The body of the Nikonos RS is made of die-cast copper silumin oxidized aluminum alloy, and has a depth rating of 328 feet. All the joints are sealed by O-ring gaskets to ensure a watertight seal. The body measures 7.7 inches high, 5.9 inches wide, 3.3 inch-

es deep, and weighs approximately 32.4 ounces underwater.

### INTERCHANGEABLE LENSES

The Nikonos RS system includes three outstanding underwater lenses made of high-quality optical glass for which Nikon is renowned worldwide. All three lenses are fast-aperture and have been color corrected for underwater performance. Each has an airtight, double-bayonet mount that ensures a watertight fit on the camera body.

The R-UW 28mm f/2.8 lens is considered the standard lens for the RS system, and can be used for general reef scenics, moderately wide-angle photos, and close-up photography up to 1:6 ratios. This close-focusing capability allows the photographer to get closer to the animals than ever before with a standard lens.

The R-UW 50mm f/2.8 lens is the workhorse of the macro world for the RS system. This lens and RS camera enables the underwater photographer to move into 1:1 (life-size) subject magnification with no extension tubes or special attachments.

The largest and most impressive lens in the RS system is the R-UW 20-35mm zoom lens. This is the world's first underwater zoom. Since lenses cannot be changed underwater, this lens is the ideal choice for photographers who want the flexibility of different focal lengths underwater. The photographer can capture the entire reef on film and, seconds later, zero-in on a fish portrait.

### NIKONOS SB-104 FLASH SYSTEM

The Nikonos RS camera system can be used with either the SB-102 or SB-103 flash systems presently available for the Nikonos-V camera and still maintain full flash controls. But, if the underwater photographer wants to utilize some of the additional controls of the RS system, the new SB-104 flash is necessary. The Nikonos RS camera and this flash give the photographer complete use of Matrix Balanced Fill-Flash, Center-Weighted TTL Flash, Manual flash, Rear-Curtain flash sync, and Wireless Remote Camera Slave.

The SB-104 has a warm color temperature balance of 4700 K to compensate for the loss of colors in pictures taken underwater. The flash projects a 100° angle of light, which is enough to cover all the lenses used in the RS system. The SB-104 is powered by a rechargeable NiCd Battery pack SN-104, and yields 120 flashes per charge with a 3-second recycle time.

Nikon Inc., 1300 Walt Whitman Rd., Melville, NY 11747-3064; telephone (516) 547-4200. □

## PHOTO & TOURS WORKSHOPS

(Continued from page 83)

**94109; (415) 776-2211.** John Muir Trail Centennial Series, "The Sierra Skyway," July 11-August 14 (in six parts): *Part I, Happy Isles to Reds Meadow*, July 11-19. Yosemite Park and Ansel Adams Wilderness. \$370. *Part II, Reds Meadow to Florence Lake*, July 19-27. \$370. *Part III, South Lake*, July 25-August 1. \$325. *Part IV, Taboose Creek*, July 28-August 4. \$325. *Part V, Onion Valley*, August 1-8. *Part VI, Mt. Whitney, Kings Canyon and Sequoia Parks*, August 6-14. \$370.

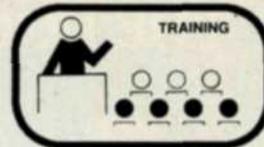
● **63 Ranch, Mission Creek Canyon, P.O. Box 979, Livingston, MT 59047; (406) 222-0570.** *63 Ranch Photo Workshops*, September 6-12. Photograph cowboys, horses and cattle, elk and bison, ranch life and wildlife, wildflowers and fall colors, waterfalls, geysers, hot springs and fumaroles, spectacular mountains, and lush meadows in the majesty Absaroka Mountains of Montana. \$950, inclusive.

● **Trinity Alps Workshops, Mary Ellen Schultz, 216 Marquis Pl., Santa Maria, CA 93454; (805) 928-3386.** Ontario, September 26-October 3. Using lovely Stokely Creek Lodge with its magnificent accommodations and meals, Mary Ellen Schultz and Charles Krebs will instruct during the peak of intense autumn color in the Eastern hardwood forests. The Algoma country of Lake Superior is unsurpassed in its beauty. See nearby lakes, rocky coves, beaver ponds, waterfalls, wild apple orchards, and more. \$975, inclusive.

● **Pete Vogel's Wildlife Safari Photo Workshops, Box 229, Winchester, OR 97495; (503) 679-6761, ext. 15.** *Wildlife Safari Photo Workshop*, September 11-13. A 600-acre, drive-through, reasonably local, exotic wild-animal park located in southern Oregon proves to be a photographer's wildlife paradise. Get up—photogenically—close with lions, tigers, elephants, and bears. Excursions include walk-throughs, pop-top van trips, photo instruction by Pete Vogel, lodging and meals.

● **Larry West, Nature Photography Workshops, 25 W. Barnes Rd., Mason, MI 48854; (517) 676-1890.** *Late Summer Color—Cardinal Flower, Great Dew*, August 23-29. *Autumn Color—Brilliant Hues, Frosty Mornings*, September 27-October 3. All workshops are based at the Holiday On The Lake motel, which is located on the shore of beautiful Houghton Lake—Michigan's largest inland lake. □

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