SKIN DIVER MAGAZINE
1992

New Product Series

U/W CAMERAS

SEA & SEA's

WIDE ANGLE ACCESSORIES FOR THE NIKONOS V

TEXT AND PHOTOGRAPHY BY JACK AND SUE DRAFAHL

It was late Thursday and we still had to finish packing our dive gear for a ten day dive trip. Our destination was the Brooks Institute of Photography research vessel *Just Love*, near Las Paz, Mexico. Just when we thought we had our camera gear all packed, SKIN DIVER called, asking us to test some Sea & Sea equipment. We looked at our gear and said, "Sure, what's another bag, we'll probably have to take an extra plane anyway." "Good," the editor said, "the gear will be there today." Sure enough, in another hour the delivery man showed up on our doorstep with a huge box. Fortunately for us, the size compacted once we unpacked all the boxes and repacked them with our own personal gear. When we looked closer at what was sent, we were glad we had accepted the assignment because the box included a 15mm lens, a 20mm lens, a wide angle viewfinder, flash arms, YS-50 flash and YS-200 flash. In this report we'll tell you just how well this equipment performed on our Sea of Cortez tour but first, here's more about the Sea & Sea equipment itself.

F/3.5 20MM LENS

This extremely compact seven element wide angle lens is not much larger than the standard 35mm Nikonos lens but it has a 79 degree angle of coverage. The lens is designed to withstand depths to 200 feet and works with all the TTL

Top: Sea & Sea 15 mm lens, 20 mm lens and YS 50 on a Nikonos V and YS 200 flash (from left). Above: Nikonos with 15mm lens and YS 200 with flexible sea arm.

20MM WIDE ANGLE LENS WL20

Focal length	20mm
Aperture	f/3.5
Coverage	79.5 degrees
Construction	7 elements 7 groups
Focusing range	1.3 feet to infinity
Aperture range	f/3.5-f/22
Body material	aluminum
Pressure tested	200 feet
Filter diameter	58mm
Size	62 X 61 X 98mm
Weight	270 grams
List price	$525

functions of the Nikonos V. The f/stop control is on the right side of the lens as you look down and it has a range of f/3.5 to f/22. Click stops allow the diver to easily locate each f/stop. The control, on the left side, displays focus from infinity to 1.3 feet. A depth of field chart attached to the top of the lens displays information about the most common settings. For example: depth of field for this lens at f/16, focused at three feet, is 1.3 feet to infinity, the entire focus range of the lens. The front of the lens has a 58mm filter mount. If you decide to use a color correction filter you will need one that has vent holes so water can fill the space between the filter and lens.

F/3.5 15MM LENS

The 10 element 15mm lens is a must for those who want to concentrate their efforts on super wide angle pictures. This lens is smaller than both the old and new Nikonos 15mm lenses and considerably less expensive. The Sea & Sea 15mm lens is also designed to work to depths of 200 feet with full TTL operation. The f/stop control is in full stops from f/3.5 to f/22 and operates the

15MM WIDE ANGLE LENS WL15

Focal length	15mm
Aperture	f/3.5
Coverage	96 degrees
Construction	10 elements 8 groups
Focusing range	1 foot to infinity
Aperture range	f/3.5-f/22
Body material	aluminum
Pressure tested	200 feet
Filter diameter	77mm
Size	80 X 64 X 98mm
Weight	365 grams
List price	$1,165

same way the 20mm lens does. The control on the left side of the lens displays focus from infinity to one foot. A depth of field chart, on the top of the lens, shows information similar to the 20mm lens except the range is greater. For example: f/16 focused at two feet results in a picture with sharp focus from infinity to .98 feet. The front of the lens is threaded for 77mm color correction filters. Again, be sure to use filters that have vent holes to allow water between the filter and lens.

MULTI-VIEWFINDER MVF

The Sea & Sea three element viewfinder is designed to cover the 35 to 15mm lenses with parallax correction. This small, high quality glass viewfinder attaches to the hot shoe of the Nikonos camera and locks in place with a knob

OPTICAL VIEWFINDER

Angle of coverage	96 degrees
Lens construction	3 groups of 3 elements
Body material	aluminum
Depth rating	200 feet
Measurement	64 X 57 X78mm
Weight	295 grams
List price	$270

just under the finder. It is designed for use in depths to 200 feet and works with both Nikonos and Sea & Sea lenses.

YS-50 TTL FLASH AND FLASH ARM

If macro and general photography is your game, the YS-50 TTL flash is an ideal companion for your Nikonos. This lightweight flash is slightly smaller than the Nikonos SB 103 and has operating specifications very similar to it. The unit is powered by four AA batteries and has an average recycle time of four seconds

YS-50 TTL FLASH

Angle of coverage	90 degrees
Batteries	4 AA
Recycle time, full power	6 seconds
Flashes on full power	180 with alkalines
Depth rating	200 feet
Exposure control	manual/TTL
U/W guide ISO 100	26
List price	$ 450

with nickle-cadmium batteries. The batteries are loaded through a small O-ring sealed door in the back of the flash. A single control on the back switches the flash from the off to on for use with the manual mode or TTL with the Nikonos V. A ready light in the middle tells the diver when the flash is ready for the next exposure.

The YS-50 TTL has a 90 degree angle of coverage with its built-in diffuser and has a color balance of 5,400 degrees Kelvin. This slightly warmer color is designed to counteract the blue cast found in underwater scenes. The YS-50 TTL flash attaches to the Nikonos camera with a two part tray and flash arm system. The Sea & Sea baseplate VII attaches to the Nikonos camera and the end of the plate is slotted to hold the Sea Arm IV. The base of this arm slides into the slot, turns and locks in place. The arm has a sliding extension that doubles the distance of the flash to camera. This is especially useful for wide angle pictures and situations with heavy backscatter. The flash is attached to the top of the arm and can be turned to the desired angle before locking it into position with a large knurled knob.

YS-200 FLASH AND FLASH ARMS

If you want a powerful professional flash that covers extreme wide angle lenses, the YS-200 may be just what you are looking for. This heavy duty flash has a 110 degree angle of coverage, can withstand depths to 300 feet and is powered by a removable nickle-cadmium battery pack. A single control on the side of the flash allows you to select one-half,

YS-200 FLASH

Angle of coverage	110 degrees
Batteries	nickle-cadmium
Recycle time, full power	5 seconds
Flashes on full power	200
Depth rating	300 feet
Exposure control	manual
U/W guide ISO 100	33
List price	$ 775

full and slave at full power. Recycle times at half power average three seconds and full power flashes take five seconds to recycle. A ready light is a short distance from this control and is easily visible underwater. Fully charged batteries can provide between 200 to 400 flashes, depending on your power selection. A diffusion disk can be inserted in the front of the flash if you want to extend the angle of coverage more than the 110 degrees. When not needed, this disk can be stored on the back of the flash with a unique attachment device.

Battery replacement/charging is accomplished by releasing the two catch and strike clamps that hold the strobe together. The batteries can be charged inside or outside the flash. If you plan on taking a lot of photos, you can buy a spare battery pack and have it charging while you are using the strobe and a second pack.

The YS-200 is attached to the Nikonos camera with the very unique, flexible Sea Arm. It attaches to a post at the end of the baseplate holding the Nikonos camera. The flash is attached to the top of this arm with a large knurled knob. The Sea Arm is locked in place by pushing down on the arm, turning it 90 degrees and releasing. The arm can be permanently secured with an attached thumb

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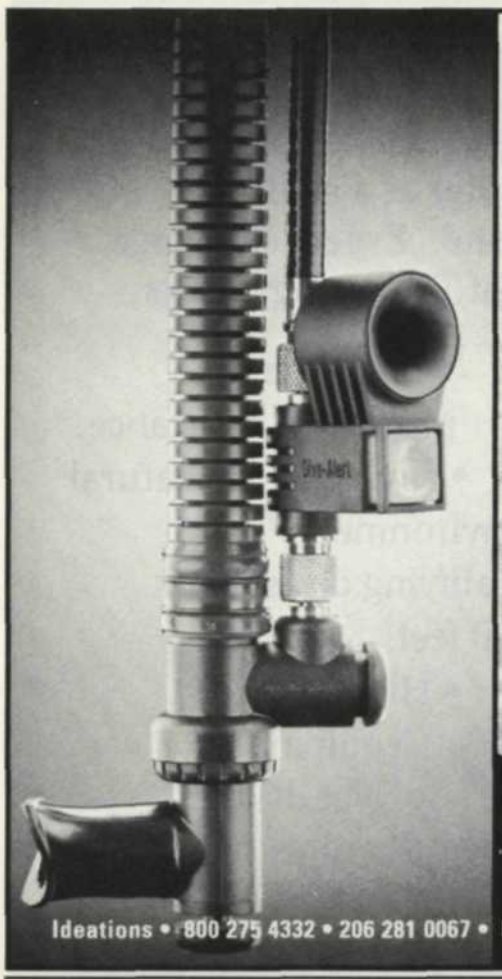

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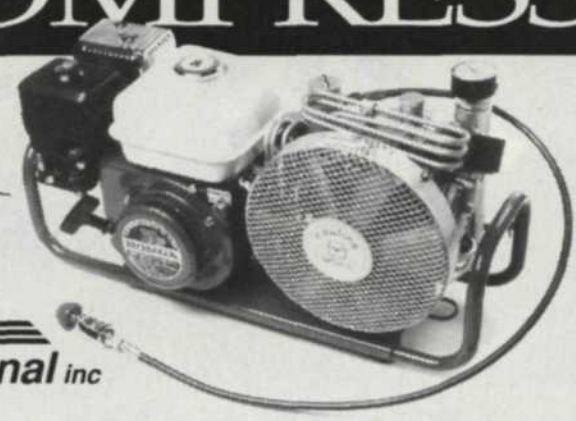

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SEA & SEA ACCESSORIES

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screw. This flexible arm can bend 180 degrees and easily holds the flash in place.

FIELD TESTS

When we tested the two wide angle lenses, we found the f/stop and focus controls very easy to read and turn U/W. We were very impressed with the lenses' compact size and light weight, both for diving and traveling. The finder worked well with both lenses, although the viewing area is slightly smaller than that of some of the larger Nikonos viewfinders. The trade-off is that one Sea & Sea finder works for all lenses, while Nikon has separate finders for each lens.

We found the YS-50 TTL flash most suitable for macro and close-up photography. It was small enough to allow us to sneak into those cracks and crevices to capture critters on film. The YS-50 TTL could be used with the 20mm lens, as long as the subject was close to the photographer. We changed batteries every three to four rolls and found no decrease in recycle time.

The YS-200 flash worked very well with both the 20 and 15mm lenses. Because it is a manual flash, we found it necessary to bracket exposures until a "normal" exposure was determined. Once this was established, we lost very few pictures owing to the manual operation of the flash. We lost virtually none owing to exposure with the YS-50 TTL flash.

Of all the items tested, we were most impressed with the flexible Sea Arm. No more ball joints, connectors and trying to figure how to get the flash in a specific position—just bend the arm to the desired position and it stays there. The Sea Arm has so much strength it holds the flash in position even in mid-air. We also liked the quick disconnect. This allowed us to extend the flash as far as our arms could reach for special situations.

CONCLUSION

For further information on any Sea & Sea products contact GMI Photographic, Inc., P.O. Drawer U, 1776 New Highway, Farmingdale, NY 11735; (516) 752-0066. GMI can put you in contact with the Sea & Sea dealer in your area.

REEF FISH IDENTIFICATION

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in alphabetical order.

The first few pages provide helpful hints on how to identify fish, their color phases, distinctive features, general silhouettes and so on. True color photos portray fish in their natural habitats, where divers are